

About Conference –

The national conference is going to be jointly organised by Desert Research Association (DRA) H.Q. Jodhpur (Raj.) and Savitribai Jyotiba Phule Research Peeth, Jai Narain Vyas University, Jodhpur (Raj.), in collaboration with Dept. of P.G. Studies in Geography, Dr. B.R. Ambedkar Govt. College Sri Ganganagar (Raj.). The venue of the conference is Jai Narain Vyas University, Jodhpur. Jodhpur is known as sun city which is one of the major tourist destinations in India.

The national conference is designed to give academicians, researchers and young enthusiasts a forum to explore the current topic and challenges in a wide range of research driven environment. Researchers, academicians, and young students from various streams of universities/institutions and colleges are welcome to come together to share their idea and debate on the issue during the event.

ORGANISERS

Desert Research Association



The Desert Research Association is an organization of academicians, researchers, institute members, indigenous social workers and professionals. This association is registered under NITI Aayog and Ministry of Corporate Affairs, Government of India. Desert Research Association was

established in 2021 to promote the development of research and education. It is a non-profit organization dedicated to promotion and excel in research. and education.

Our objective is to promote noble cause of research and education in all fields of knowledge; to keep everyone connected with latest research in any field; to provide a bigger platform for interaction; to help young researchers in achieving their goals in research; to assist them in publication of their research work.

We wish that all researchers, academicians, professional, scientists, lawyers, research institutes, industries, various universities and colleges, conference organisers etc. should join us for the noble cause of research and conducive environment for the benefit of society and mankind.

Savitribai Jyotiba Phule Research Peeth, JNVU Jodhpur (Raj.)



Savitribai Jyotiba Phule Research Peeth, Jain Narain Vyas University Jodhpur is the first of its kind in the state of Rajasthan devoted to the legendary social reformer Krantijyoti Savitribai Phule and following in the footsteps of Krantijyoti Savitribai Phule, This centre will deal consciously with the issues of caste,

gender, class and region in all its programmes. With its teaching programmes, research, publication and extension programmes the centre will seek to develop research, curriculum and pedagogies in social justice and social service so that an enlightened citizenry can be created which inspired by the work and vision of Savitribai Phule, will carry forward her mission and vision.

The centre will build linkages with diverse regional, national and international organizations including academic institutions, women's groups and voluntary organizations in development and media sectors to pursue its goals and vision.

Department of Geography, Dr. B. R. Ambedkar Govt. PG College Sri Ganganagar (Raj.)



Department of Geography in Dr. Bhim Rao Ambedkar Government College Sri Ganganagar (Raj.) is one of the oldest Department in the state, which was established in 1969. Earlier the department had organised five National Conference and one International Conference under various associations and Govt.

departments. The department had 29 Ph.D. students and 7 pursuing Ph.D. students, apart from more than 100 M.Phil. students. Nine projects have been completed in the department funded by UGC and ICSSR.

Editor,

INTERNATIONAL EDUCATIONAL SCIENTIFIC RESEARCH JOURNAL

Ahmedabad-380001, Gujarat (India).

Contact No : +91-94 26 46 1959

Email Id : editor@iesrj.com | Website : www.iesrj.com

E-ISSN No : 2455-295X

Impact Factor : 5.983



IESRJ

**INTERNATIONAL EDUCATIONAL
SCIENTIFIC RESEARCH
JOURNAL**

**DRA ANNUAL
NATIONAL CONFERENCE**

ON

**RESEARCH, EDUCATION AND SUSTAINABLE DEVELOPMENT:
OPPORTUNITIES & CHALLENGES
(An Interdisciplinary Approach)**

Peer Reviewed International Journal

Journal for All Subjects

Volume : 9 | Special Issue | March 2023

www.iesrj.com

**DRA ANNUAL NATIONAL CONFERENCE
ON
RESEARCH, EDUCATION AND SUSTAINABLE DEVELOPMENT: OPPORTUNITIES &
CHALLENGES
(An Interdisciplinary Approach)**

PATRON

PROF. RAJENDRA PARIHAR
HEAD, DEPT. OF GEOGRAPHY
JAI NARAIN VYAS UNIVERSITY JODHPUR (RAJ.)
&
FOUNDER PRESIDENT
DESERT RESEARCH ASSOCIATION

EDITORS

DR. SHYAM. S. KHINCHI HEAD, DEPT. OF GEOGRAPHY DR. B.R. AMBEDKAR GOVT. COLLEGE, SRI GANGANAGAR (RAJ.) (VICE PRESIDENT OF DRA)	DR. SHRAVAN KUMAR FOUNDER SECRETARY DESERT RESEARCH ASSOCIATION FORMER RESEARCH REPRESENTATIVE RESEARCH UNION JNVU JODHPUR (RAJ.)	DR. ASHWANI ARYA DIRECTOR SAVITRIBAI JYOTIBA PHULE RESEARCH PEETH, JAI NARAIN VYAS UNIVERSITY, JODHPUR (RAJ.)
---	---	--

REVIEWERS

DR. VIJENDRA PAL SINGHAL	DR.KAMALAKANT	DR. DEEPENDRA SINGH
DR. A.K. SHAIRYA	DR. A. RAJSHEKHAR	DR. MOHAN LAL
MR. BHAGAWAT PRAKASH	Mr. NARENDRA KUMAR	DR. NIMBA RAM

INTERNATIONAL EDUCATIONAL SCIENTIFIC RESEARCH JOURNAL

Ahmedabad-380001, Gujarat (India).

Contact No : +91-94 26 46 1959

Email Id : editor@iesrj.com | Website : www.iesrj.com

INDEX

Sr. No	Title	Page No
1	CYBER SECURITY AND SOCIAL MEDIA - MEENAKSHI SHARMA	1-4
2	RIGHT TO LIFE IN CLEAN ENVIRONMENT IN INDIA - SUNIL KUMAR	5-8
3	A STUDY ON BANKING IN RECENT ERA - ARUN MONDAL	9-11
4	P. SIVAKAMI'S NOVELS: A MIRROR TO DISCREPANCY IN THE INDIAN SOCIETY - PARVEEN	12-14
5	CHANGING FEMALE WORKFORCE PARTICIPATION IN KARALI DISTRICT (2001-2011) - PRIYANKA MEENA, DR. RAJENDER KUMAR	15-18
6	CLIMATE CHANGE AND HUMAN HEALTH - DR. SUNIL KUMAR	19-20
7	BREAKING BARRIERS: AN ANALYSIS OF IMPLEMENTATION OF RIGHT TO EDUCATION FOR DIFFERENTLY ABLED PERSONS IN INDIA - SUNITA CHOUDHARY	21-23
8	INITIATIVES RELATED TO CORPORATE GOVERNANCE FOR INDUSTRIAL SECTOR IN INDIAN CONTEXT - PRACHI, DR. SHRAVAN KUMAR	24-27
9	GOOD GOVERNANCE AND WOMEN EMPOWERMENT IN INDIA: CRITICAL ANALYSIS IN REFERENCE OF NIRBHAYA SCHEME AND PRADHAN MANTRI UJJWALA YOJANA. - SIMRANDEEP KAUR DHILLON	28-33
10	IMPRINTS OF ENVIRONMENTAL JURISPRUDENCE IN INDIA: NATIONAL GREEN TRIBUNAL V/S ENVIRONMENTAL POLLUTION - ETI GUPTA	34-37
11	GENDER SENSITIZATION AND EDUCATION - DR. DINESH KUMAR GUPTA	38-41
12	GREEN BONDS IN INDIA: PROGRESS AND CHALLENGES - JYOTI MALIK, DR. HAREESH KUMAR T	42-47
13	IMPACT OF MINING ACTIVITY ON ENVIRONMENT: AN OVERVIEW - DR. POOJA SHARMA	48-54
14	INCULCATION OF QUALITY TEACHING STRATEGIES FOR THE HYBRID LEARNING MODEL WITH SPECIAL REFERENCE TO TEACHER EDUCATION - DR MOHIT DIXIT, LOVISH RAHEJA	55-61
15	"NEW EDUCATION POLICY -2020: AN ANALYSIS OF CONTRIBUTIONS IN THE MAKING OF SELF-RELIANT INDIA" - DR. PRADEEP KUMAR SINGH	62-66

16	ADOPTING AEROTROPOLIS MODEL FOR URBAN DEVELOPMENT: A CASE STUDY OF NAVI MUMBAI INTERNATIONAL AIRPORT - GANDHARVA PEDNEKAR	67-70
17	DOES BRANDING HELPS IN SUSTAINING THE BUSINESS DURING CRISES? : A VIEW POINT ON INDIAN HOTEL INDUSTRY - MR. MAHESH KUMAR BAIRWA, DR. SWAPNA PATAWARI, MRS. RAJNI KUMARI	71-79
18	NEW EDUCATION POLICIES 2020 CHALLENGES AND ROLE IN REFORMING HIGHER EDUCATION - RICHA AUDICHYA, DEEPAK BHATIA	80-85
19	NEW EDUCATION POLICY- ISSUES AND CHALLENGES - DR. MOHAN LAL GOSWAMI	86-92
20	NEW EDUCATION POLICY (NEP) 2020: ESCALATING EMPLOYABILITY SKILLS THROUGH VOCATIONAL EDUCATION - KRTITKA CHOUHAN	93-98
21	ROLE OF NUCLEAR ENERGY IN GLOBAL CLIMATE CHANGE MITIGATION: A NEW APPROACH - MAHIMA RATHORE	99-103
22	COMPETENCY BASED EDUCATION: AN INITIATIVE OF NATIONAL EDUCATION POLICY (2020) - DR.PRIYA KHIMNANI, TANUSHI MATHUR	104-107
23	MAHATMA JYOTIBA PHULE : HIS ROLE IN WOMEN EMPOWERMENT - PARMOD KUMAR	108-111
24	STUDY OF PHOTOGALVANIC CELL USING BIODEGRADABLE SURFACTANT IN TARTRAZINE - FRUCTOSE SYSTEM FOR POWER GENERATION AND STORAGE - ARYA RAKESH KUMAR, JAYSHREE RATHORE, LAL MOHAN	112-124
25	IMPACT OF FOOD PHOTOGRAPHY ON CONSUMER BEHAVIOR TOWARDS ONLINE FOOD DELIVERY SERVICES - DR.RANJEETA MADHWANI, DR. PRIYANKA DAYA CHOUDHARY	125-129
26	A STUDY OF THE PERCEPTION OF THE EDUCATIONAL LEADERS ON CREATING OF GREEN COLLAR INDUSTRY THROUGH VOCATIONAL TEACHING IN SOUTHERN RAJASTHAN - DR. SHALENDRA SINGH RAO, SAGAR SHARMA	130-134
27	THE IMPACT OF THE AGRICULTURAL SECTOR ON THE LIVES OF RAJASTHAN'S INDIGENOUS WOMEN (A CASE STUDY OF GHOOMER MAHILA SAMITI) - DR. NAMRATA KHEMRAJ YADAV, SHIVANGI MALI	135-140
28	STUDYING THE SOCIO-DEMOGRAPHIC CHARACTERISTICS OF MINE WORKERS OF JODHPUR DIVISION IN RAJASTHAN IN THE POST-PANDEMIC SCENARIO - INDU DEVAL	141-145
29	WOMEN EMPOWERMENT IN INDIA: A CRITICAL ANALYSIS - DR. SUKHPREET KAUR, DR. MANISH JAIPAL	146-149
30	THE MUNICIPAL SOLID-WASTE MANAGEMENT'S - BHAGWAT PRAKASH DAYMA, DR.SHYAM S KHINCHI, DR.MAHESH KUMAR GAUR, RAMESH KUMAR RANA, DR .NARESH KUMAR OJHA	150-156

31	ACADEMIC STRESS IN RELATION TO EMOTIONAL INTELLIGENCE AMONG RURAL AND URBAN ADOLESCENTS - DR. VARSHA, DR. MANISH JAIPAL	157-160
32	YOGA BREATH - SOURCE OF LIFE - DR. REKHA BHARDWAJ	161-165
33	SUSTAINABLE DEVELOPMENT IN MULTILEVEL MARKETING (MLM) BUSINESS DURING COVID-19 PANDEMIC - DR.ASHA RATHI, DEEPIKA CHAUHAN	166-168
34	MODES OF DEHUMANIZATION IN EXISTENTIAL POVERTY - VIPIN BEHARI GOYAL, DR. SATISH KUMAR HARIT	169-172
35	PERFORMANCE ANALYSIS OF GRID-CONNECTED WIND FARM - SANTOSH KUMARI MEENA, KHAMMA KANWAR	173-175
36	WIDE AREA MONITORING USING OPTIMIZED PHASOR MEASUREMENT UNITS - NARENDRA KUMAR, SANTOSH KUMARI MEENA	176-180
37	A COMPARATIVE STUDY OF NEW EDUCATION POLICY (NEP) 2020 WITH EXISTING NATIONAL POLICY OF EDUCATION 1986 - VIVEK KUMAR MEENA, DR. HAMENDRA NATH VYAS	181-184
38	COMPETITION POLICY IN INDIA – DURING AND AFTER COVID-19 PANDEMIC - SANTOSH DUDI	185-187
39	वर्तमान में प्राकृतिक खेती का बढ़ता उपयोग बिलाड़ा एवं पीपाड़ तहसीलों में - ओमप्रकाश, डॉ. लक्ष्मणराम बाला	188-191
40	“डॉ. रांगेय राघव के उपन्यासों में चित्रित सामाजिक समस्याएँ” - डॉ. गिरधारी परिहार	192-196
41	दृष्टि-बाधित परीक्षार्थियों के श्रुतिलेखक की समस्या का अध्ययन - मनोज माथुर, डॉ. प्रार्थना फोफलिया	197-198
42	प्राचीन भारतीय शिक्षा में पर्यावरण संचेतना : एक विश्लेषणात्मक अध्ययन - डॉ. महबूब खान मुगल, डॉ. सुरेंद्र चौधरी	199-201
43	पर्यटन पर कोविड-19 महामारी का प्रभाव : जोधपुर के संदर्भ में संक्षिप्त अध्ययन - मनीषा, अर्जुन लाल मीणा	202-204
44	भारतीय विदेश नीति और चीन-पाक गठजोड़ एक चुनौती - मोहित कुमार, डॉ. चुनाराम सुथार	205-207
45	बाल श्रम और मानव अधिकार - नीतू चौहान	208-210
46	मारवाड़ के इतिहास का अनछुआ पहलू 'राईका समाज' : इतिहास एवं संस्कृति के विशेष सन्दर्भ में - सुखराम	211-213
47	गंगानगर जिले में बढ़ते नगरीकरण का भौगोलिक अध्ययन - नवदीप संधू, डॉ. राजेंद्र कुमार	214-216
48	कृषि एवं कृषि पर आधारित उधोगों की चुनौतियों का विश्लेषणात्मक अध्ययन - रामदेव गुर्जर, डॉ. दुष्यन्त कुमार	217-219
49	शिक्षा में जनजाति महिलाओं के बढ़ते कदम : भविष्य में संभावनाएँ - सुश्री प्रथा कलासुआ	220-222

50	मन्तू भण्डारी के उपन्यासों में स्त्री-विमर्श - डॉ. अनिता कुमावत	223-224
51	भारतीय बैंकिंग क्षेत्र पर कोविड-19 के प्रभाव - डॉ. आशा राठी, संजु भाटी	225-226
52	प्राचीन भारतीय साहित्य एवं ग्रंथों में पर्यावरण संरक्षण एवं भारतीय मूल्य - डॉ. भूपेन्द्र कुमार जाँगिड.	227-231
53	ई-लर्निंग : मुद्दे एवं चुनौतियाँ - अंशुल श्रीवास्तव, डॉ. विशाल उपाध्याय	232-234
54	कोविड-19 का शिक्षा पर प्रभाव - डॉ. मधु चौहान	235-237
55	वैश्वीकरण की प्रक्रिया एवं पर्यटन उद्योग पर प्रभाव - नारायण कुमार	238-240
56	शहीदों की विधवा महिलाओं के धार्मिक स्तर पर बदलते प्रतिमान (राजस्थान राज्य के जोधपुर जिले की शेरगढ़ तहसील के शहीदों की विधवा महिलाओं के विशेष संदर्भ में) - योगिता रानी पंवार	241-242
57	राजस्थान के कृषि क्षेत्र में विकास और बदलाव: एक विश्लेषणात्मक अध्ययन जयपुर जिले के सन्दर्भ - श्री गोपाल लाल जाट	243-248
58	साइबर सुरक्षा एवं साइबर कानून का शोसल मीडिया पर प्रभाव साथ ही, साइबर अपराधों का अभियोजन द्वारा किए जा रहे वैज्ञानिक अन्वेषण तथा इलेक्ट्रानिक अभिलेखों को न्यायालय में किस प्रकार प्रस्तुत किया जाए का तुलनात्मक अध्ययन। - डॉ प्रदीप कुमार तिवारी	249-251
59	कोविड-19 : सामाजिक आर्थिक बदलाव व चुनौतियाँ - सुमन पूनीया	252-253
60	नवीकरणीय संसाधन और हरित अर्थव्यवस्था राजस्थान के संदर्भ में। - नरेन्द्र कौर, निशा रानी	254-255
61	INNOVATIVE STUDY OF PHOTOGALVANIC CELL FOR SOLAR ENERGY CONVERSION AND STORAGE - MOHAN LAL, JAGRATI MEENA, ARCHANA SHARMA, KM GANGOTRI	256-264



CYBER SECURITY AND SOCIAL MEDIA

MEENAKSHI SHARMA

RESEARCH SCHOLAR, FACULTY OF LAW, JAI NARAIN VYAS UNIVERSITY, JODHPUR, RAJASTHAN.

ABSTRACT:**KEYWORDS:****INTRODUCTION:**

Today, the man may send and receive any kind of information—including emails, sound files, and videos—by simply pressing a button, but did he ever consider how securely his information is being transmitted to the other person with essentially no data leakage? Cyber security is the solution. The fastest-growing foundation in modern life is the internet. Many recent breakthroughs are transforming the very nature of humanity in the current specialised environment. However, these new advances mean that we are unable to effectively protect our private data, which is why cybercrime is on the rise right now. Today, more than 60% of all commercial transactions are conducted online, necessitating a high level of security for these transactions. As a result, cyber security has recently become a problem. The scope of cyber security also includes other spheres like cyberspace and other spheres outside of the IT business.

Even the most current technological advances, such as distributed computing, flexible computing, E-business, online banking, and so forth, require an unquestionable level of security. Since these developments include important information about a person, their security has become an absolute necessity. Every nation's security and economic success depend on enhancing cyber security and establishing fundamental data foundations. Increasing Internet security (and protecting Internet users) is now essential for the development of new administrations, just like it is for legislative strategies. Cybercrime must be combated with a comprehensive and secure manner. Taking into account that specific measures alone can't thwart any wrongdoing, it is critical that regulation necessity associations are allowed to investigate and arraign cyber wrongdoing satisfactorily. Today various nations and lawmaking bodies are compelling serious regulations on cyber insurances to prevent the lack of a few huge data. Every individual ought to moreover be ready on this cyber security and save themselves from

these growing cyber-crimes.

In relation to the insecurity created by and through this new environment, cyber-security also refers to the procedures or methodologies used to make it (dynamically) secure. The data it holds and how it flows are implied to be protected from all conceivable threats by a plethora of actions and methods, both specific and general. This analysis aims to compile all the information and an overview of cybercrime, provide the genuine facts, and cover the information of numerous assaults that have been publicly reported during the past five years. Based on the data reviewed, we would desire to suggest all possible defenses that organizations might use to ensure further improved security that would support in protecting the associations from being attacked by programmers and provide a cyber-security to avoid all threats.

In the most recent long term, cyber security has emerged as a key issue in the IT industry. Everyone in the modern world has to cope with a number of problems related to cybercrime. People are particularly concerned as programmers are stealing highly sensitive data from the government and several undertaking associations. A cyber-security attack can accomplish everything from cheap deception to coercing enormous businesses. There are many different types of cybercrimes that are emerging, and everyone should be aware of the techniques as well as the tools and equipment that can be used to prevent them. Every association must protect its confidential data against hacking. Losing the relationship with clients who are on the alert when you get hacked is just as important as losing the confidential information.

The current fastest-growing foundation is the Internet. Humanity is evolving as a result of several new developments in the current specialised environment. However, due of these emerging improvements, we are unable to effectively protect our personal information,

which means that cybercrime is undoubtedly growing on a regular basis. The majority of exchanges, both business and personal, are conducted online, therefore it is crucial to have a grasp of the requirements for top-notch security while maintaining superior transparency for all parties and having more secure exchanges. The most current issue is hence cyber security. Innovative trends like cloud administrations, mobile devices, E-trade, digital banking, and many more call for special requirements and a higher level of security. The most sensitive and important client data is stored on each and every gadget and technological advancement needed for these exchanges. Giving them the essential security is therefore crucial. Each nation's first priority is security, thus focusing on cybersecurity and protecting sensitive data and foundations is crucial.

Cyber security concerns itself with the understanding of encompassing problems of various cyber attacks and devising safeguard methods (i.e., countermeasures) that guarantee privacy, honesty, and accessibility of any technological and data advances.

- The term "privacy" refers to the prevention of data disclosure to unauthorised parties or systems.
- Respectability is the concept used to prevent any modification or cancellation that is not authorised.
- The term "accessibility" is used to ensure that the systems responsible for delivering, storing, and handling data are available when needed and by the people who need them.

Many cyber security experts concur that malware is the key tool for carrying out harmful schemes to undermine cyber security efforts in cyberspace. Malware refers to a broad category of attacks that are installed on a system, typically without the knowledge of the real owner, in order to influence the system to a foe's advantage. Infections, worms, Trojan horses, spyware, and bot executables are some common types of malware. Malware can taint frameworks in a variety of ways, including by tricking users into opening damaged files or seducing them by visiting malicious websites. In more severe cases of malware contamination, the malware may attach itself to a USB drive that has been embedded into a compromised device and then contaminate every framework that the device has been so implanted. Devices and supplies with embedded frameworks and computational logic may propagate malware. Thus, malware can be inserted at any point in the life cycle of the framework. End client frameworks, servers, network devices (such as switches, switches, etc.), and process control frameworks like Supervisory Control and Data Acquisition can all be affected by malware (SCADA). One of the biggest problems on the Internet nowadays is the proliferation and complexity of the ever increasing quantity of malware.

CYBER CRIME

Any criminal activity that uses a PC as its primary tool for commission and burglary is referred to as cybercrime. The U.S. Division of Justice expands the definition of

cybercrime to include any illegal activity that utilises a PC as a means of evidence. The growing list of cybercrimes includes offences made possible by PCs, like network disruptions and the spread of PC infections, as well as PC-based variations of recognised offences, like fraud, stalking, harassing, and illegal intimidation, which have emerged as a serious problem for both individuals and nations. Cybercrime is typically defined as a crime committed using a computer and the internet to steal a person's identity, sell booty or tail casualties, or disrupt activities with vengeful schemes. Cybercrimes will rise in tandem with technological advancements as technology becomes more and more integrated into people's daily lives.

TRENDS OF CYBER SECURITY

A fundamental function in the field of information technology is accepted by cyber security. In the modern era, information protection has become the biggest problem. The first factor that harmonises with cyber security is the exponentially growing number of cybercrimes. Numerous groups and organisations are taking various measures to stop these cybercrimes. At this point, many people are quite concerned about further steps for cyber security. Some primary patterns that are changing cyber security give as follows:

WEB SERVERS

There is still a risk of assaults on online apps that aim to isolate data or encircle malicious code. Cybercriminals use excellent web servers that they have hacked to distribute their code. However, data-stealing attacks, a significant portion of which target the media, are also a serious threat. People currently require a stranger highlight on purchasing web servers and web apps separately. In essence, the preeminent stage for these cybercriminals to steal data is on web servers. In order to avoid becoming a quarry for these pollutions, one should always employ a more robust software, especially when engaging in basic trades.

CYBER SECURITY

Information protection and security will always rank at the top of any association's security concerns. The fact that all of the data is maintained current in a sophisticated or cyber structure is a daily reality we must accept. Social systems administration locations provide a setting where users can interact with loved ones in a genuine sense of security. Because they have clientele at home, cybercriminals continue to target social media platforms to steal personal data. An individual should take all essential security precautions when managing social platforms and conducting bank transactions.

ROLE OF SOCIAL MEDIA IN CYBER SECURITY

Organizations should look for improved methods to secure personal data as we live in a more social and interconnected environment. Social media plays a significant role in cyber security and significantly increases personal cyber risks. Both the popularity of social media

among employees and the threat of attack are rising. Social media or social systems administration websites are almost always used by the majority of people, making them a prime target for cybercriminals looking to steal important data and compromise personal information.

Organizations must make sure they are just as quick to identify threats, respond gradually, and prevent any kind of break in the world as we know it, where we are quick to relinquish our own data. These social media platforms easily attract people in, so programmers utilise them as a lure to get the data they need. Therefore, people should take the necessary precautions, especially when maintaining their social media accounts, to prevent the lack of their data.

The essence of the particular test that social media provides to businesses is the ability of individuals to disseminate information to a crowd of millions of people. Social media not only allows everyone the capacity to communicate sensitive economic information, but it also gives anyone the same ability to spread false information, which may be just as harmful. The rapid spread of false information via social media is one of the emerging risks identified in the Global Risks 2013 report.

CYBER SECURITY TECHNIQUES

ACCESS CONTROL AND PASSWORD SECURITY

A fundamental component of our data security strategy has been the use of client names and secret keys. This could be one of the most important cyber security measures.

AUTHENTICATION OF DATA

The reports we receive should always be verified before downloading, that is, it should be ensured that they originated from a reliable and trustworthy source and that they haven't been altered. The anti-infection software that is already installed on the devices typically completes the validating of these archives. In order to protect the devices from infections, good enemy of infection software is also essential.

ANTI-VIRUS SOFTWARE

A computer application known as antivirus software recognises, prevents, and attempts to disable or remove malicious software programmes, such as viruses and worms. The majority of antivirus applications have an auto-update feature that enables the programme to download infection profiles so it can scan for new infections as soon as they are discovered. For every framework, an anti-infection programme is an obvious necessity and vital need.

CONCLUSION

Because of how interconnected the world is becoming and how frequently networks are used for everyday transactions, computer security is a huge issue that is becoming more important. With each New Year, cybercrime continues to take on new forms, and data security follows suit. The most recent and problematic

advancements, together with the brand-new cyber tools and threats that surface every day, are putting organisations to the test in terms of how well they can secure their framework, but they also necessitate new approaches and knowledge to do so. There is no perfect solution to cybercrimes, but we should do everything in our power to prevent them so that the future of cyberspace is free from risk. Cybersecurity refers to both the vulnerabilities created by and through this new area as well as the procedures or methodologies used to make it (constantly) secure. Cyberspace confirmation efforts must demonstrate a clear demand; else, users won't be able to use "data technology" as they should. If measures are not made to address the inevitable extension in such a cyber-attack, the terrorist of the future will win the conflicts without firing a shot by pounding the nation's essential base. No matter where they are located in the world or how close they are, they can carry out a murky investigation into the lives of others.

REFERENCES

1. Bendovschi, A. (2015). Cyber-Attacks – Trends, Patterns and Security Countermeasures. *Procedia Economics and Finance*, pp. 24-31. doi:10.1016/S2212-5671(15)01077
2. Cabaj, K., Kotulski, Z., Książopolski, B., & Mazurczyk, W. (2018). Cybersecurity: trends, issues, and challenges. *EURASIP Journal on Information Security*. doi:10.1186/s13635-018-0080-0
3. Dervojeda, K., Verzijl, D., Nagtegaal, F., Lengton, M., & Rouwmaat, E. (2014). *Innovative Business Models: Supply chain finance*. Netherlands: Business Innovation Observatory; European Union.
4. Gade, N. R., & Reddy, U. G. (2014). A Study of Cyber Security Challenges And Its Emerging Trends On Latest Technologies. Retrieved from https://www.researchgate.net/publication/260126665_A_Study_Of_Cyber_Security_Challenges_And_Its_Emerging_Trends_On_Latest_Technologies
5. Gross, M. L., Canetti, D., & Vashdi, D. R. (2017). Cyberterrorism: its effects on psychological well-being, public confidence and political attitudes. *Journal of Cybersecurity*, 3(1), pp. 49-58. doi:10.1093/cybsec/tyw018
6. Hua, J., & Bapna, S. (2013). The economic impact of cyber terrorism. *The Journal of Strategic Information Systems*, 22(2), pp. 175-186.

7. Kumar, S., & Somani, V. (2018). Social Media Security Risks, Cyber Threats and Risks Prevention and Mitigation Techniques. International Journal of Advance Research in Computer Science and Management, 4(4), pp. 125-129.

8. Panchanatham, D. N. (2015). A case study on Cyber Security in E-Governance. International Research Journal of Engineering and Technology.

9. Samuel, K. O., & Osman, W. R. (2014). Cyber Terrorism Attack of The Contemporary Information Technology Age: Issues, Consequences and Panacea. International Journal of Computer Science and Mobile Computing, 3(5), pp. 1082-1090.

10. Sharma, R. (2012). Study of Latest Emerging Trends on Cyber Security and its challenges to Society. International Journal of Scientific & Engineering Research, 3(6).

11. Sreenu, M., & Krishna, D. V. (2017). A General Study on Cyber-Attacks on Social Networks. IOSR Journal of Computer Engineering (IOSR-JCE), 19(5), pp. 01-04.

12. Sutton, D. (2017). Cyber Security : A Practitioner ' s Guide. Swindon, UK: BCS, the Chartered Institute for IT.



RIGHT TO LIFE IN CLEAN ENVIRONMENT IN INDIA

SUNIL KUMAR

GUEST FACULTY, FACULTY OF LAW, JAI NARAIN VYAS UNIVERSITY, JODHPUR, RAJASTHAN.

ABSTRACT:

KEYWORDS:

INTRODUCTION:

In its origin, the problem of environmental pollution is not new. It has existed since the emergence of Homo sapiens on Earth and was recognized by Plato 2500 years ago. However, some aspects of the problem of environmental preservation and its management have actually changed in the present. The scope of society's contact with nature now is so great that environmental issues are now widely acknowledged as having an impact on all of humanity. A few of the factors that have contributed to environmental collapse around the world include industrialization, urbanization, population explosion, destitution, overuse of resources, consumption of conventional energy resources and unrefined components, and the search for new sources of energy and natural resources. While man's technological and scientific advancements have given him enormous control over nature, they have also led to his mindless exploitation of the environment, which continues unabated.

To live in a healthy environment is a basic human right. Because of the country's extreme need, the developmental cycle needs to be hurried up, but we can't do it at the price of the environment because that would endanger both the current generation and the one that will follow. "Sustainable development" is an urgent issue of paramount importance. "Sustainable development" refers to any development that solves the problem of the present without jeopardizing the ability of people to solve their problems in the future. Human beings are currently without a doubt at the centre of the search for sustainable development because our own survival depends on a relatively small number of environmental conditions.

It is not only a fundamental human right, but it also upholds human dignity to live in a clean environment. If applied, the idea of sustainable development is one such strategy that can guarantee everyone's fundamental right to a life of dignity.

MEANING OF ENVIRONMENT

The environment includes things like air, water, food, and daylight. The environment has an impact on all living things, including plants and trees. Numerous demands of existence are partially met by the environment. In light of this, it is possible to define the environment as life's emotional support system.

The term "environment" is defined in Section 2(a) of the Indian Environment (Protection) Act, 1986 as including water, air, and land as well as people, other living things, plants, microorganisms, and property.

However, the phrase "environment" includes all or any of the accompanying media, specifically, air, water, and land, and the mode of air includes the air inside the structures and the air inside other regular or synthetic designs above or below ground, according to Section 1(2) of the Environment Protection Act, 1990 of the United Kingdom.

THE PREAMBLE OF THE CONSTITUTION AND ENVIRONMENT PROTECTION

The Indian people earnestly pledge to establish India as a socialist nation, according to the Preamble of the Indian Constitution. This proves that our Constitution gives us the right to a socialist social structure attempting to address and address society problems first, rather than focusing on personal issues. What is best for the general population is crucial in this situation.

One of the primary social issues that need attention is the presence of pollutants in the atmosphere that are beyond the allowable limit. In addition to destroying the environment every day, it also abuses the health of living things.

The Preamble's main goal is socialism, which the state must accomplish through enacting strict regulations to rid the environment of all sorts of pollution. The state also has a duty to ensure that all living things have access to a good level of living in addition to a pollution-free environment.

All Indian citizens want to ensure their independence, which also entails ensuring justice. Justice can be understood and pursued in a variety of ways. Consequently, citizens are entitled to environmental justice. The lives of living things are more at risk due to the environment's growing degradation, hence protecting the environment is becoming increasingly important in everyday life because failing to do so would seriously endanger the environment as a whole.

ENVIRONMENT AS A BASIC RIGHT

After the Second World War, the idea of human rights in general evolved, but the right to a healthy environment as one of those rights was never given precedence. This right is a new idea that is currently the subject of intense discussion in the human rights community. For both humans and other animals on the globe, a healthy environment is a crucial component of the right to life. Therefore, a violation of the fundamental right to life could also constitute a violation of the right to a healthy environment.

The lives of current and future generations may eventually be in jeopardy if the environment deteriorates. In India, the right to life has thus been exercised in a variety of ways. It covers, among other things, the right to life, the right to a good quality of life, the right to be treated with respect, and the right to a living. This has been expressly acknowledged as a constitutional right in India. "No individual shall be deprived of his life or personal liberty unless pursuant to procedures provided by law," declares Article 21 of the Indian Constitution. The Supreme Court increased this wrongdoer's right in two different ways. First and first, any legislation that restricts personal freedom must be equitable, fair, and reasonable. Second, the Court acknowledged a number of implicit freedoms that were inferred by article 21. The Supreme Court defined the right to life and personal liberty to include the right to a healthy environment using this second approach.

RIGHT TO LIFE AND ENVIRONMENT PROTECTION

The constitutional right to life is guaranteed by Article 21. According to this, no one's right to life or personal liberty may be taken away from them until legal procedures are followed. This section is subject to exception and is governed by law, which varies from case to case, according to one interpretation of the phrase "unless in accordance with procedures established by law."

The clause has been given a negative impact because it starts with the word "no." However, this clause has been positively interpreted in the post-Maneka era, and it now imposes an obligation on the state to ensure that this law is properly implemented.

In addition to the basic essentials of life, such as food, shelter, clean water, and clothing, the right to life also encompasses the right to live in dignity. The right to life includes the ability to live in a decent and safe environment free from danger to one's life. An environment must be free from all viruses and diseases.

This is important because providing the right to life would be pointless if it were not possible to live in an environment that is free from sickness, filth, and danger. In the case of Rural Litigation and Entitlement Kendra, Dehradun v. State of Uttar Pradesh, where the petitioner and other citizens wrote to the supreme court expressing their views against the progressive mining that stripped the Mussoorie hills of trees and forests and caused soil erosion, it is clear that this aspect of Article 21 has been discussed. As a result, the ecology was negatively impacted, landslides occurred, and subsurface water systems were blocked.

The Hon'ble Supreme Court instructed the registrar to treat this letter as a writ submitted in accordance with Article 32 of the Constitution.

The Supreme Court constituted an expert group to provide some technical advice to the Honorable court on this matter. The court ordered the closure of the limestone quarries because it was violating the right to life and the right to personal liberty, based on the expert committee's report. Quarrying operations cause ecological deterioration, as well as air and water pollution, which significantly impacts people's quality of life.

The Rajasthan High Court ruled in L.K. Koolwal v. State of Rajasthan and Others that Article 21 of the Constitution covers preserving environmental, sanitary, and health standards. Because failing to do so may negatively impact the lives of many individuals and cause gradual poisoning in addition to shortening a citizen's life.

In Charan Lal Sahu v. Union of India, it was determined that the state's responsibility is to take reasonable and decisive action to uphold and defend constitutional rights protected by Articles 21, 48-A, and 51-A (g).

According to M.C. Mehta v. Union of India, the environment in and around Delhi was severely polluted as a result of stone-crushing operations. The court was aware of the unavoidable outcomes and ecological issues brought on by industrial activity in the nation. It is not acceptable to allow the ecology to deteriorate and the amount of pollution to rise to the point where it poses a threat to everyone's health in the name of environmental progress. Additionally, it was decided that everyone has a right to clean air to breathe and a healthy environment to live in.

Additionally, the judiciary expanded the jurisdiction of article 21 to encompass the right to a living. Along with the right to life, it also protects citizens' ability to support themselves. The article's more expansive interpretation has proven useful in maintaining a strict check on the behaviour and actions of the government in the context of the steps taken by the authorities to protect the environment. It is also helpful in maintaining control over state actions that may have a significant negative impact on the environment, people's health, and threats to the poor's ability to support themselves.

FUNDAMENTAL RIGHTS AND THE RIGHT TO A CLEAN ENVIRONMENT

The right to life, protected by Article 21 of the Indian Constitution, is the most important elemental right. According to the article, the right cannot be eliminated unless it is done in accordance with the legal process. The Indian Constitution has a very unique provision known as the right to constitutional remedies that serves to protect this right as well as other fundamental rights.

In accordance with Article 32 of the Constitution, the Supreme Court may issue any further order, direction, or writ necessary to ensure that basic rights are upheld, in addition to writs of mandamus, certiorari, prohibition, or quo warranto.

According to Article 226 of the Constitution, the High Courts are given a comparable authority. In order to determine whether any state instrumentality, agency, or organ has violated or exceeded the scope of the authority granted to it and to ensure that the state and the public fully comply with the requirements of the Constitution and the law under which they are established and perform their duties, the Courts are called upon to exercise this power of review.

ROLE OF THE SUPREME COURT IN ENVIRONMENTAL PROTECTION

Due to the vast array of environmental protection cases the supreme court has heard, numerous decisions have been made that set forth certain guidelines that must be followed before engaging in any action that could endanger the environment. Additionally, other environmental factors have been emphasised by being given great value, such as natural resources. The status of being a natural gift and an essential component of existence has been granted to air and water.

The Supreme Court determined that certain standards must be upheld in order to safeguard the environment while incorporating key elements of the basic right outlined in Article 21.

ENVIRONMENTAL PROTECTION UNDER THE INDIAN CONSTITUTION

RIGHT TO LIFE UNDER ARTICLE 21

The 1980s were a time when the Indian judiciary got more liberal and inventive, according to its history. The relevance of air and water as the most essential gifts of nature for the preservation of life was highlighted in the case of Rural Litigation and Entitlement Kendra vs. State of Uttar Pradesh, 1985. Article 48A and Article 21 were not specifically discussed by the judges. However, this instance is regarded as marking the beginning of the liberal interpretation of Article 21.

In Subhash Kumar v. State of Bihar, 1991, the Supreme Court ruled that Article 21 guarantees the right to a healthy environment. By incorporating environmental protection within the Right to Life, they continued the liberal philosophy that was established in the Rural

Litigation decision and established a broad reading of the term "life" in Article 21.

In Virender Gaur v. State of Haryana, 1994, this stance was once more upheld. It was decided that in order to enjoy life and have a right to a dignified existence, one must also safeguard and preserve the environment, without which one cannot enjoy life.

It is crucial to comprehend how the environment and quality of life are related. Several incidents have been discussed in order to comprehend this.

CONCLUSION

This article starts by emphasising why environmental protection is important and why there is a need to do so, followed in the introduction by the factors that contribute to ecological deterioration. Numerous factors have been identified as important contributors to the country's environmental pollution, human health issues, and severe threats to other species of life.

The term "environment" was not specifically mentioned in the Constitution in the past, and there were no provisions in place to address environmental hazards and control human behaviour that was significantly contributing to the degradation of the environment while purporting to be exercising fundamental rights. The supreme law of the land is the constitution. The environment would so benefit from the inclusion of sections that particularly address environmental challenges.

A remedy for this significant health risk was found in the 42nd Amendment to the Indian Constitution. The first section of the article's provisions highlights those that are the most fundamental. Starting with the Preamble to the Constitution's usage of the phrases "democratic," "socialist," and "republic," as well as its relation to environmental preservation. The duties of the state to safeguard the environment were then discussed because, as a body chosen by the people, it has a duty to serve them. The idea of rights and duties was then discussed, and it was noted that citizens have a right to a healthy environment as well as obligations to safeguard and preserve the environment in which they live.

The necessity of protecting the environment has been emphasised in numerous landmark cases, which have been cited to help make the principle even clearer. Additionally, it can be said that the supreme court has had a significant influence on the development of environmental law. Additionally, fundamental rights are crucial and cannot be violated, but they can be dealt with in accordance with acceptable constraints.

Because a healthy environment encourages good health in more people, there is less resource waste and less need for expensive medical care for individuals, making it crucial to have a healthy environment. The poor suffer the most in these circumstances since they do not have the financial means to take care of their medical needs. In addition, healthy people are priceless assets for the nation since they can greatly boost the GDP, create jobs, and pave the

way for progress by being in good health and physical condition.

REFERENCES

1. Dr Gyan Basnet, The Right to Healthy Environment <http://www.nepalnews.com/home/index.php/guest-column/19926-the-right-to-healthy-environment-.html>

2. Dr. Mohd. Yousuf Bhat and Dr Syed Damsaz Ali Andrabi, Right to Life in Context of Clean Environment: Its Significance under Various Laws, 2279-0845

3. Hambro, E., "The Human Environment – Stockholm and After", Year book of World Affairs, 20 (1974).

4. <https://earthclipse.com/environment/what-clean-environment-does-for-productivity.html>

5. <https://thriveglobal.com/stories/4-benefits-of-a-clean-environment-to-your-well-being/>

[environment-to-your-well-being/](https://thriveglobal.com/stories/4-benefits-of-a-clean-environment-to-your-well-being/)

6. <https://www.lawteacher.net/free-law-essays/human-rights/right-to-clean-environment.php>

7. Indrajit Dube, "Environmental Jurisprudence: Polluter's Liability", Lexis Nexis Butterworths.

8. Mahendra P. Singh, V.N. Shukla's "Constitution of India", 11th Edition, Eastern Book Company.

9. S.C. Shastri, "Environmental Law", 3rd Edition, Eastern Book Company.

10. Uday Shankar and Saurabh Bindal, Right to Environment and Right to Development: A Judicial Conundrum, ISSN 2278-4322



A STUDY ON BANKING IN RECENT ERA

ARUN MONDAL

ASSISTANT PROFESSOR IN COMMERCE, BANGABASI COLLEGE, KOLKATA.

ABSTRACT:

The inclination of customers towards e-banking has increased significantly in recent years. Rural people suffer due to poor infrastructure of banking sector in Rural India. Rural people cannot avail banking facilities properly due to lack of bank branches. Highly educated people prefer e-banking more than traditional banking. Banks emphasize to increase customer satisfaction as it helps to enhance customer loyalty. Bank employees are not always able to deliver customer services properly. Bank employees should be properly trained so that they can provide appropriate services to the customers. The service qualities of private sector banks are usually better than public sector banks. Banks should increase the number of branches in remote areas. Banks emphasize to increase the banking habits among rural masses. Customer Satisfaction is the main concern of banks. Customer Satisfaction depends on several factors such as accessibility, convenience, security etc. Banks focus on customer satisfaction to compete with other banks in the banking sector. Many people in rural areas are not interested to avail banking services due to lack of knowledge. The study is based on primary data and secondary data. Primary data has been collected from the customers of private and public sector banks. Secondary data has been collected from journal articles. In this paper, an attempt has been made to find out the various aspects of banking in recent era.

KEYWORDS:

BANK, BANKING, CUSTOMER, CUSTOMER SATISFACTION.

I. INTRODUCTION

Banks emphasize to increase e-banking habits among customers. Rural people have less interest in e-banking in comparison to urban people. The burden of branch banking maybe avoided through e-banking. Rural masses are not able to avail banking facilities properly as banks have very few branches in rural areas. Banks adopt modern technology to provide banking services appropriately to the customers. Customer satisfaction is the major concern of banks. Customer satisfaction depends on several factors such as security, accessibility, convenience etc. Banks play an important role in the development of rural economy. The economy of India is based on agriculture and rural economy is the major factor behind the development of the country (Kher, 2013). Banks focus on customer satisfaction due to increased competition in the banking sector (cabanillas et al., 2013). The impact of banks on modern economy is very significant (Nandini et al., 2021). The infrastructure of banks in rural india is very poor. Private sector banks provide better services than public sector banks. The employees of private sector banks are delivering banking facilities accurately to the customers. The objective of the study is to find out the various aspects of banking in recent era.

II. LITERATURE REVIEW

The role of regional rural banks is very significant in the development of rural economy (Karunakaran, 2020). E-banking provides services to the customers on the banks of technology (Zafar et al., 2011). Online banking is based on internet but traditional banking is based on branch

banking (Santhiya and Saravanan, 2018). Banks focus on the service quality of e-banking to increase the level of customer satisfaction (Kampakaki and Paphanasion, 2016). Banks provide accurate e-banking services to enhance customer loyalty (Saravanan and Leelavathi, 2020). Security factor plays important role for internet banking (Yadav, 2016). Customers can avail mobile banking facilities very easily by using mobile phones (Deshwal, 2015). Quality of e-banking services has immense influence on customer satisfaction (Madavan and Vethirajan, 2020). Banks focus to enhance customer loyalty by increasing customer satisfaction (Suleiman et al., 2012). Banks provide technology based services to the customers as a result of digital development in banking sector (Mansuri, 2021). The banking facilities in e-banking is better than traditional banking (Hada, 2020). Banks provide online banking facilities to the customers to survive in the competition in banking sector (Sikira, 2021). Rural economy may be developed by increasing the number of bank branches in rural areas (Burges and Pande, 2005). The success of banks depends on customer awareness (Puttaswamy, 2018). Rural people face difficulties in availing banking facilities (Pandi, 2019). Many rural people are not availing the facilities of mobile banking inspite of having mobile phones (Mohapatra et al., 2020). The main focus of rural banks is to develop agricultural sector (Dhanraj and Kumar, 2016). The main purpose for the establishment of regional rural banks is to develop the rural economy (Barot and Japee, 2021). Rural banks play important role in rural development (Deb, 2020)

III. METHODOLOGY

The study is based on Primary and Secondary data. Primary data has been collected from public and private sector banks in West Bengal. The sample size of the study is One Hundred. 70% of respondents are male and 30% of respondents are female.

IV. DATA COLLECTION AND DATA ANALYSIS

Private banks provide better banking services than public banks:

Agree : 79%

Disagree : 21%

79% of respondents are agree and 21% of respondents are disagree.

The number of bank branches in rural areas is inadequate:

Agree : 86%

Disagree : 14%

86% of respondents are agree and 14% of respondents are disagree.

Rural people avoid e-banking due to lack of knowledge:

Agree : 66%

Disagree : 34%

66% of respondents are agree and 34% of respondents are disagree.

Customers prefer e-banking than traditional banking in recent years:

Agree : 77%

Disagree : 23%

77% of respondents are agree and 23% of respondents are disagree.

Customer Satisfaction depends on service quality of banks:

Agree : 82%

Disagree : 18%

82% of respondents are agree and 18% of respondents are disagree.

Customers avoid e-banking due to security threat:

Agree : 91%

Disagree : 09%

91% of respondents are agree and 09% of respondents are disagree.

V. CONCLUSION

Banks should take necessary steps to increase the habit of banking among rural masses. Rural people avoid e-banking

due to lack of knowledge. Banks adopt advanced technology to service in the competition of banking sector. The service quality of private sector banks is better than public sector banks. Rural banking has immense impact on the development of rural economy. Highly educated customers prefer e-banking than traditional banking. The main concern of banks is to increase the level of customer satisfaction.

REFERENCES

1. Zafar, M., Zaheer, A., Rahman, S.U. & Rehman, K.U. (2011). Impact of online service quality on customer satisfaction in banking sector of Pakistan. *African Journal of Business Management*, Vol. 5(30), November, 11786-11793.

2. Seleiman, G.P., Nik, K.N.M, Adesiyan, O.I., Mohammed, A.S. & Jamal, A.L. (2012). Customer loyalty in e-banking : A structural equation modeling (SEM) approach. *American Journal of Economics*, June, 55-59.

3. Deshwal, P. (2015). A study of mobile banking in India. *International Journal of Advanced Research in IT and Engineering*, Vol.4, No.12, December, 1-12.

4. Yadav, P. (2016). Active drivers of adoption of internet banking. *Independent Journal of Management & Production*, V.7, n.2, April-June, 445-464.

5. Santhiya, R.T. & Saravanan, A. (2018). A study on customer satisfaction towards net banking with special reference to general banking customer in Coimbatore city. *Journal of Emerging Technologies and Innovative Research*, Volume 5, Issue 11, November, 134-138.

6. Madavan, K. & Vethirajan, C. (2020). Customer satisfaction on e-banking services of public and private sector banks in Puducherry region – An empirical analysis. *International Journal of Management*, Volume 11, Issue 6, June, 649-664.

7. Hada, B.S. (2020). Impact of internet banking on the customer satisfaction : Evidence from the Indian banking sector. *International Journal of Recent Technology and Engineering*, Vol.8, Issue 6, March, 3833-3841.

8. Mansuri, S., Bansal, A., Vankar, N. & Prajapati, C. (2021). A study on customer satisfaction for digital banking services of Indian banks. *International Journal of Creative Research Thoughts*, Vol.9, Issue 3, March, 2808-2814.

9. Nandini, G., Bosu A. & Patjoshi, P.K. (2021). Growth and performance of rural banking in India : An empirical study. *Annals of R.S.C.B. Vol. 25*, Issue 6, 3527-3539.

10. Burges, R.. & Pande, R. (2005). Do rural banks matter? Evidence from the Indian social banking experiment. *The American Economic Review*, Vol.95, No.3, June, 780-795.

11. Kher, B.M. (2013). The role of rural banks in the development of rural socio-economy. *International Journal of Research in Humanities and Social Sciences (IJRHS)*, Vol.1, Issue 4, June, 31-36.

12. Dhanraj, N. & Kumar, R.S. (2016). Challenges and issues of Indian rural banking industry. *Anveshana's International Journal of Research in Regional Studies, Law Social Sciences, Journalism and Management Practices*, Volume 1, Issue 4, May, 10-21.

13. Puttaswamy, G.M. (2018). Impact of e-banking on rural India - A bird's eyeview. *Asian Journal of Management*, 9(3), July-September, 1191-1194.

14. Pandi, G.R. (2019). Financial performance of regional rural banks in Tamilnadu. *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, Volume 9, Issue 2S2, December, 488-491.

15. Deb, R. (2020). Performances of regional rural banks in rural development in Tripura : An analytical

study. *International Journal of Creative Research Thoughts (IJCRT)*, Volume 8, Issue 6, June, 2873-2881.

16. Karunakaran, N. (2020). Role and challenges of rural banks in the financial inclusive growth of India. *Journal of Management Research and Analysis*, 7(3), July-September, 104-106.

17. Mohapatra, M.R., Moirangthem, N.S. & Vishwakarma, P. (2020). Mobile banking adoption among rural consumers : Evidence from India. *American Business Review*, Volume 23, Number 2, Article 6, 300-315.

18. Barot, B. & Japee, G. (2021). Indian rural banking - Role of regional rural banks. *GAP GYAN - A Global Journal of Social Sciences*, Volume IV, Issue II, April-June, 56-59.

19. Sikira, R. (2021). Customers' opinions on reasons for using online banking : Experience of customers in Tanzania. *International of Scientific Research and Management*, Vol.09, Issue 05, EM - 2021-2185-2195.

20. Cabanillas, F.L., Leiva, F.M., & Guardia, F.R. (2013). The determinants of satisfaction with e-banking. *Industrial Management and Data System*, Vol.113, No.5, 750-767.

21. Kampakaki, M. & Papathanasion, S. (2016). Electronic-banking and customer satisfaction in Greece. The case of Piraeus bank. *Annals of Management Science*, Vol.5, No.1, December, 55-68.

22. Saravanan, N. & Leelavathi, R. (2020). Impact of e-banking services with customer attitude and satisfaction with special reference to Chennai district. *European Journal of Molecular & Clinical Medicine*, Vol.7, Issue 10, 2585-2596.



P. SIVAKAMI'S NOVELS: A MIRROR TO DISCREPANCY IN THE INDIAN SOCIETY

PARVEEN

ASSISTANT PROFESSOR, GOVT. GIRLS COLLEGE SOORSAGAR.

ABSTRACT:

Sivakami's novels are a milestone to create awareness among women especially dalit women for their rights in their society as well as their society. Primarily her novels are imbued in the colours of bewildering issues doing naked-dance with full jollity in the Indian society. Whether is financially or socially they are always at the loose end of it. They try to procure care and attention but they garner only the hopeless sympathy which is useless for them. Her works like 'The Taming of the Women' and 'The Grip of Change' are destroyer of the patriarchy standing tall with their roots so deep that it is very difficult to measure and destroy as well.

But this research is well designed and organised with the sole aim to reach to the source of the roots of this evil of patriarchy and explode it with the vehement energy and willingness of the dalit women. This research shall throw light to scatter the dark secrets of the patriarchy within society and family as well. Many works have depicted the lives of the dalit women but till date no solution has been got for their salvation. Sivakami here makes her desperate efforts to give vent to the suppressed tongue of the dalit sisters of her community across the county.

KEYWORDS:

MANLINESS, MARGINALIZATION, GENDER, DISCRIMINATION, PATRIARCHY, DALIT, FEMINISM, SUPPRESSION.

INTRODUCTION

Sivakami in her novels which are the mirror to the naked dance of the men exposes the duplicity of the male world through some major characters. Kathamuthu, a very diplomatic character from her novel 'The Taming of the Women' is the symbol of the patriarchal force working in the community. He is a community leader besides being a father to a beautiful girl named Gauri. He can't accept the uncontrolled behaviour of his daughter so he makes all his efforts to bring her under the control of the patriarchy by not allowing her to live her life in her own way.

She is a spontaneous kind of girl very much attracted to Nature and its beauty in such a way that even a tiny wild flower roused her appraisal for natural beauty lying deep in her heart and visible through her eyes but the society which gives no importance to women and their desires suppresses her desires too in a cruel way. She loves to beautify herself but her this attitude falls prey to the very codes of the social decree. Kathamuthu, her father has a deep faith in the authority of the patriarchy does not approve of her wild nature thereby suppresses her natural inclination towards the beauty of life. Gawri here presented as the victim of the male cruelty and indifference towards the human rights of the women especially dalit women. Thus Sivakami contrasts the life of a woman with that of a man who is freer and enjoys his life in his own way but for a woman it is not possible to live her life in her own way.

THE ROLE OF GENDER IN SIVAKAMI'S NOVELS

Enjoying the status of the First Tamil Dalit novel, 'The Grip

of Change' proves itself as a supreme kind of distinct creative piece of writing in which readers find a panorama of various shades of feminine consciousness across the social sphere. Through this novel, the author presents not only the status of the women in the society but also illustrates the highly corrupted Dalit leadership. This work introduces to us a very major character Thangam who is such a special one to be categorized into both as a modern feminine character as she raises voice against her high caste perpetrator. She is a traditional female character as she bears Paranjothi Udayar as well Kathamuthu's exploitation silently. Dalit women are victims of widespread exploitation, violence and indecent, suffering, injustice and inhumane treatment. Most often violence against Dalit women is used to punish them. This system has gone far ahead to become a vigorous mechanism to control women. This is the reality of the society and is very well depicted in the novels of Sivakami whether it is through Thungam or Gawri. Thangam is a poor woman bearing no fruit of child in addition to being a widow. Thangam means 'gold' but in this novel, she is mishandled for the lust of the men. Thangam was only a smoke of cigarette blown away once being used by the male for their pleasure as she was denied to have the rightful share in her husband's property due to her childless state. Paranjothi Udayar, a landlord, one day seeing Thangam alone in the fields, seduced her for having sexual intercourse and threatened her not to reveal this secret to anyone otherwise she will face adverse result. Thangam was frightened and kept her mouth locked and became his mistress. With the last hope she went to Kathamuthu

known for his leadership in the community accorded with the political influence. He helps her but in return for physical pleasure. However Kathamuthu managed to bring justice to Thangam but ultimately entrapped her sexuality and kept her at his home as his third wife. Thus Thangam is used as an object of sex everywhere in the society.

TIMIDITY AND BOLDNESS OF WOMEN

Sivakami's novels show both the timidity and the boldness of her women characters. The Taming of Women by presents the horrific condition of Anandhayi who becomes a victim at the hand of her cruel husband Periyannan. Anandhayi faces the trauma and suffering for being the part of the female world. The novel depicts the pathetic condition of female protagonist, Anandhayi going through her pregnancy. Even in this situation Periyannan had brought another woman to have sexual pleasure into his room. This clearly points out the crude aspect of marriage life because he does all this when his wife is present in the house. Periyannan is so cruel that he beats Anandhayi without taking any care of her pregnancy as it would have harmed her. But he was busy in his own life enjoying all the pleasure that he could receive even at the cost of his wife. Sivakami shows how much dangerous life a woman goes through in such a society.

Sivakami presents some other characters too to depict the pathetic situation of the women in this novel. Vellaiyamma, the mother of Periyannan, has also been presented in the same light to bear witness of the violence upon women by the male of the family. He himself never took care of his old ailing mother who took care of him when he was young one and this infuriated his mother as well. She decided not to live on the mercy and favour of her dog-like son with no respect for her. Sivakami's depiction of presumable facts brings the Dalit life-style in rural society polarized by caste and social hierarchy. When the question of dalit women is concerned, the struggle is completely different from the Upper Caste men and women, and even it is different from the problems of Dalit men. Women are women whether they live anywhere as their fate is the same. The oppressive system leaves none of them behind from getting escaped and crushes down the warmth, delicacy and tenderness in them. They are defeated and destroyed almost at every stage by each and every man. Meena Kandasamy asks a question in this response, "If the system does not allow a woman to marry a man because he is from another caste ... is it not a direct oppression of her sexuality?" Gowri and even the novelist – P. Sivakami focuses on the major events and incidents in the lives of the Dalit and the women are portrayed with that true and vivid picture of victimized society. They are doubly marginalized as they remain silent victims of even the Dalit men.

Vaishali Shivkumar writes: Through Thangam, the novelist gives a thorough picture of Dalit women's silence and their being victimized by the Upper Caste Hindus as well as they are sexually exploited by their own caste men equally. Body and misuses of the bodily pleasures become a central motif of the novel and yet the novelist does not glamorize

sexuality by smattering the text of the novel with careless elopements and gauche marriages. The majority of the description part in the novel focuses on the incident which takes place with Thangam and her body. Her body bears acknowledgment to the difficulties faced by Dalit women. (359) She is a widow and so she becomes a 'surplus' woman when is harassed by her brothers-in-law. Women can be the instruments to be relished, of entertainment or pleasure for the men of their own caste as well as the men of the Upper castes but they cannot raise their voice against this kind of crimes such is the decree of the social god. Men and women of different castes can fall in love but when it comes to the act of meting out punishment the society punishes the woman only and not the man as he is exempted from it for being masculine power. Especially, when the love-affair or physical suppression is done on the Dalit woman, she becomes the victim for the man who misuses her as well as the victim of the society. Thangam described the torment to Kathamuthu that she has gone through. My husband's relatives spread the story that I had become Paranjothi's concubine. That's why Paranjothi's wife's brothers and her brother-in-law, four men, entered my house last night.

They pulled me by my hair and dragged me out to the street. They hit me, and flogged me with a stick stout as a hand. They merely killed me. No one in the village, none of my relatives, come to help me. I begged for mercy, but they wouldn't stop. They abused me and threatened to kill me if I stayed in that village any longer. They called me a whore. (6, Sivakami) Kathamuthu asks her whether she is speaking is truth or not; what actually she has done without thinking about her 'feminine' qualities. How can she speak everything in front of a man who is almost new to her except his name and fame? Still with shame and fear she accepts the truth, "Udayar has had" (7, Sivakami) her but that is not the complete truth. She speaks the truth of events to Kathamuthu, Sami, is there anywhere on earth where this doesn't happen? I didn't want it. But Udayar took no notice of me. He raped me when I was working in his sugarcane field. I remained silent; after all, he is my paymaster. He measures my rice. If you think I'm like that, that I'm easy, please ask around in the village. After my husband's death, can anybody say that they had seen me in the company of anyone, or even smiling at anyone? My husband's brothers tried to force me, but I never gave in. They wouldn't give me my husband's land, but wanted me to be a whore for them! I wouldn't give in. ... (7, Sivakami) Trying to explore inter-caste sexual relations, P. Sivakami highlight how patriarchy gets diluted on its way down the caste ladder. In the affair between the Dalit Kathamuthu and the caste Hindu widow Nagamani, she earns a right place by being "installed" as his wife in his home. On the other hand, when Paranjothi Udayar forces himself on Thangam, at best engages her as a mistress (concubine).

She is not brought within the confines of a socially approved relationship because of her being outcaste. When everybody in the family gets asleep in the afternoon, Thangam – Who is lying in the kitchen – is again raped by

Kathamuthu. She groans, "You are like a brother to me ... a brother" (93, Sivakami). Thangam's eyes remain shut as she cannot face a man, who was once compassionate and sympathetic towards her, becomes full of lust and destroys herself psychologically – again into pieces. Simone de Beauvoir's famous statement "one is not born woman, but, rather, becomes one" suggests the construction of "woman", definitely the agent of which is the other gender (8, Butler). This is the simple reason why according to Beauvoir, the "woman" becomes the second sex/ gender. Beauvoir, Butler and Foucault talk about the question of power in the society. Thus Sivakami's works are a true mirror to the discriminatory practices of the society ruled by the patriarchy which looks upon women as mere objects of pleasure. Women are no more than slaves for men.

CONCLUSION

This research paper has made its efforts to bring to the light the dark lives of the dalit women full of burning anger at the fate of their lives. The marginalized Dalit women are easily beguiled into being the victims of the so called higher patriarchal system of society. This shows that there is a long path to plod for the safety and security of the poor women. Many more efforts are needed to scatter the dark clouds of black vapours; gender, caste, and patriarchy are in the sky. These clouds darken the lives of the dalit women upon whom no Sun of the human life and its sustainability shines. This shows the way the down-trodden and suppressed people get a shabby life style to lead in the social system of hierarchy because of that. Caste, gender and patriarchy are nothing but cruel elements destroying the inner calm and serenity of the dalit women. This cruelty has no sympathy for the

feministic emotions. Violence and discrimination are the rewards women get in their lives. Abuses are the partners for the women like Gowri and Thangam as they are marginalized because of caste, gender and patriarchy and its consequences. Thus the writer has done a great deed by writing her novels which prove their utility and purpose for the women of the dalit community.

REFERENCES

1. Butler, Judith. *Gender Trouble: Feminism and the Subversion of Identity*. Routledge, London, 1990.
2. Kalaichelvi, P. "Ships and Harbours Subaltern Voices in Tony Morrison's *Sula* and Sivakami's *The Grip of Change*." *Indian Research Journal of Literatures in English* 1.1 (Jan-June 2009): 1- 15.
3. Kandasamy, Meena. *Touch*. Peacock Books, 2006.
4. Sivakami, P. "The Grip of Change." Translated by the author, Chennai, Orient BlackSwan Books, 2006.
5. Sivakami, P. "The Taming of Women." Gurgaon, Penguin Books, 2012.
6. Shivkumar, Vaishali. "A Dalit Woman under a strong clutch of Patriarchy: A Comprehensive [5] Study of *The Grip of Change*." *Language in India* 13.4 (April 2013): 354-365. Web. 25 June 2013.



CHANGING FEMALE WORKFORCE PARTICIPATION IN KARAU LI DISTRICT (2001-2011)

PRIYANKA MEENA

DEPARTMENT OF GEOGRAPHY, DR. B.R. AMBEDKAR GOVT. COLLEGE, SRI GANGANAGAR (RAJASTHAN) INDIA.

DR. RAJENDER KUMAR

ASSOCIATE PROFESSOR, DEPT. OF GEOGRAPHY, DR. B.R. AMBEDKAR GOVT. COLLEGE, SRI GANGANAGAR (RAJASTHAN) INDIA

ABSTRACT:

According to World Bank, "No Country can develop and achieve its full potential if half of its population is involved in non-economic activities". Rapid economic growth of India along with its demographic dividend window has not transformed into increasing female workforce participation rate. Recent covid-19 situation has also adversely affected the female workforce participation rate. Due to socio-economic cultural values, labor force of females is not being properly utilized and limited this half the population towards mostly menial jobs and household works. According to ILO data, India's female labor force participation rate 2021 was lower than the world average at 25.1 percent. Rajasthan state which has very low female literacy rate has also not performed well on this front. According to census 2011, out of total 29.9 million workforces, 18.3 million are males and only 11.6 million are females. In this scenario, Karauli district of Rajasthan has only 38.20 percent female workforce out of total workforce. This is study of labor participation rate becomes crucial for formulating policies and their proactive implementation for overall human resource development to generating employment and livelihood for the women population.

KEYWORDS:

FEMALE WORK PARTICIPATION RATE, FEMALE LITERACY.

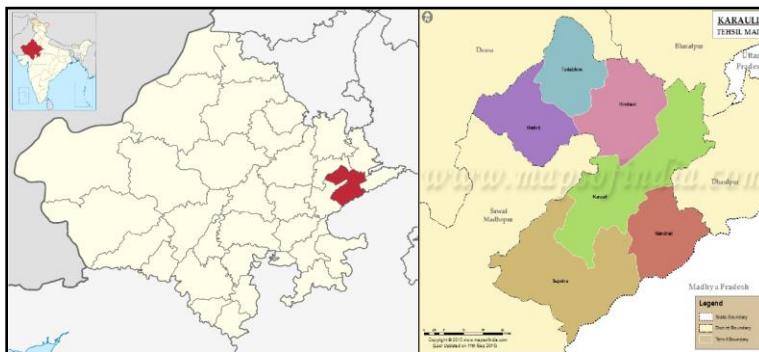
INTRODUCTION:

Female literacy and female workforce participation is an important factor in determining the social economic development of a region. Literacy is an important tool eradicating the poverty and providing means of livelihood directly or indirectly. Lower level of literacy among females also affect their work-ability and hampers their growth. Many social bias nesses also affect the working ability of women for example household works or care taking of elders done by women are not counted as economic activity in the development process.

Study of female labor market is a prerequisite formulating policies and their implementation regarding the women

empowerment. Out of 11.6 million female workers in Rajasthan over percent that is 10.6 million females are engaged in rural areas while only 0.98 million females are working as main or marginal workers in urban areas of Rajasthan. Approximately 77 percent total rural female workers are cultivators or agricultural laborers. According to CM IE report, Rajasthan ranked third in women unemployment, after Haryana and J&k, which indicate the chronic working conditions for women in Rajasthan. With the advent of 21st century, Karauli district also had low female WPR (34.22% in 2001). But in recent time gender gap in workforce is reduced from 10.6% to 9.15% during 2001-2011.

STUDY AREA:



Karauli is a district of Rajasthan in western India. The

town of Karauli is the district headquarters. Karauli

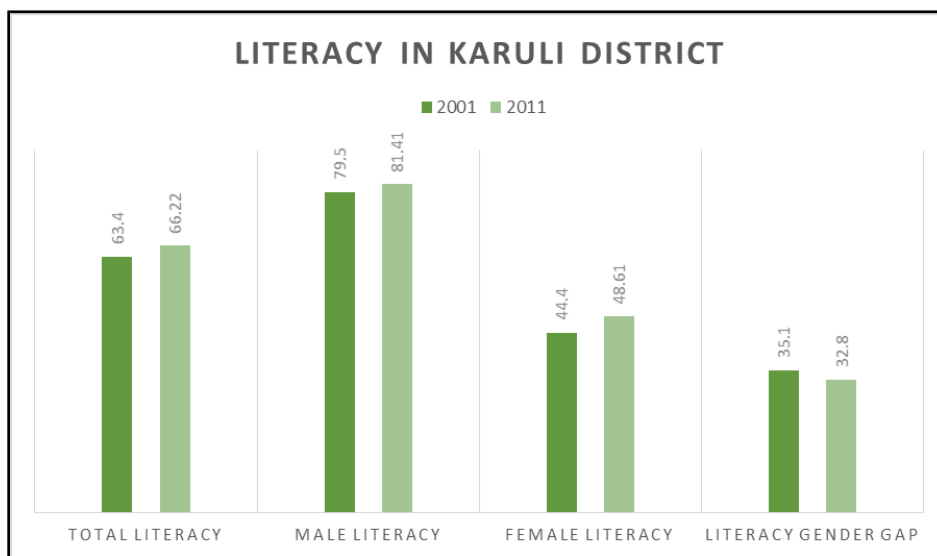
District comes under Bharatpur Divisional Commissionerate. Karauli is famous for popular red-stone. Karauli's natural environment includes the Vindhyanchal and Aravali mountains. The district has plain, high and low and hilly parts. This region is termed to be dry climate area of subtropical region. The population of the district is 1,458,248 (2011 census) and had a population density is 264 persons per km². It had population growth rate over the decade 2001-2011 of 20.57 per cent. Karauli had a sex ratio of 858 females for every 1000 males and a literacy rate of 67.34 percent according to 2011 census.

AIMS OF THE STUDY:

- To assess the participation of female workforce in the economy Karauli district.

COMPARATIVE ANALYSIS:

1. LITERACY:



- Female literacy rate increment (44.4% in 2001 to 48.61% in 2011) is more than the male literacy rate increment which had led to the reduction in

literacy gender gap rate from 35.1 % (2001) to 32.8 % (2011).

2. WORKFORCE PARTICIPATION:

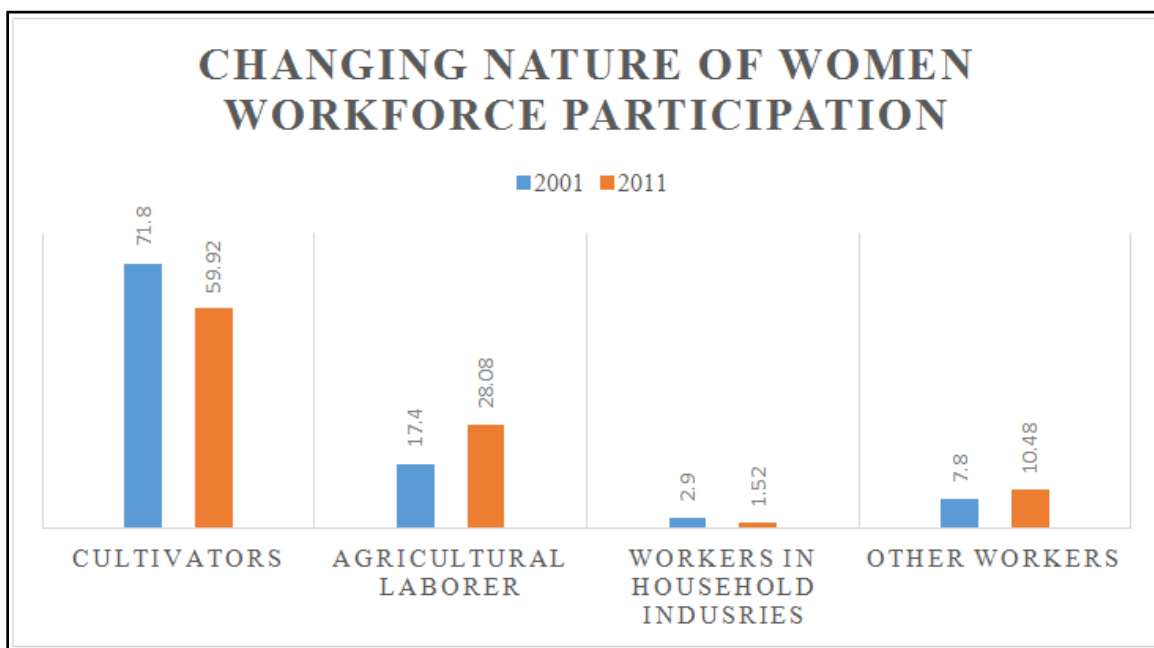
S.No.	Census	Total Working Population			Main Workers			Marginal Workers			Non Workers
		(in percentage)			(in percentage)			(in percentage)			
		Total	Male	Female	Total	Male	Female	Total	Male	Female	
1	2001	39.93	44.82	34.22	29.0	39.79	17.21	10.55	5.03	17.01	60.06
2	2011	43.12	47.35	38.20	30.06	39.44	19.16	13.66	7.91	19.04	56.88

- In 2001 Karauli had 483110 workers which was 39.93% of the total population which had increased to 62 87 26 that is 43.12 percent in 2011 census
- Total female workers increased from 1908 51 34.22% in 2001 To 257 668 38.2 zero percent in 2011
- Among total workers Main female workers

increased from 95992 17.21% in 2001 To 1292 48 19.16 percent in 2011 census.

- There was also increased number of marginal female workers from 94859 17.01% in 2001 census To 128420 19.04 percent in 2011 census.
- Share of non-working population decrease from 60.0 6% in 2001 to 56.88% in 2011 census.

CHANGING PARADIGM OF FEMALE WPR IN DIFFERENT CATEGORIES OF WORKERS (ACCORDING TO CENSUS REPORT):



- Female cultivators in the Karauli district decreased from 71.8% 2001 to 59.92 percent 2011.
- Female agricultural laborer increased from 17.4 percent to 28.08%.
- Share of female workers in household Industries decreased from 2.9% to 1.52%
- Share of female workforce in other industries including female working in livestock Forestry fishing hunting plantation mining and quarrying manufacturing processing servicing in other than household industries, trade and Commerce, transportation communication and other services increase from 7.8% to 10.48%.

CONCLUSIONS:

From the above facts and data regarding the female WPR and female literacy rate in the study area following conclusive points can be observed:

- Gender gap in workforce participation is reduced from 2001 to 2011 along with general gap in literacy. Hence increasing literacy rate in female population is positively correlated with their participation in economic development i.e. increased female work force.
- There is decreasing participation of women in cultivating activities along with more female WPR. So it can be said that more women especially rural women are finding different work dimensions out of farming.
- Increased female agricultural laborer's is not a good sign as it is possibly due to loss of land

because of indebtedness or migration of male workers living women to support family in rural areas

- Share of female workforce in industries along with total workforce had decreased which indicates lack of development of secondary activities in the study area.

SUGGESTIONS:

- Along with literacy vocational skill training must be given to increase female workforce participation rate
- More investment must be done in health and nutrition in female to reap their demographic dividend.
- More accessible child Care Centre like Anganwadi crèche so as to retention of female WPR.
- Government scheme must target land properties transfer in family so that women also get their share in properties by inheritance and eradicate gender biasness
- Decreasing Industrial Development must be checked by increased encouragement of women entrepreneurs by providing loan subsidies production linked incentives etc.

REFERENCES

1. District Census Handbook, 2001, Karauli District, Rajasthan

2. District Census Handbook, 2011, Karauli District, Rajasthan

3. District Gazetteer, Karauli

4. District Statistical Outline 2015, Economical and statistical office, Karauli

5. Nath, Madhuri. Rural women workforce in India. BR Publishing, 2003.

6. Agrawal, Meenu. Rural Women Workers in India's Unorganized Sector. New Century Publications, 2012.

WEBSITES

1. <https://www.indiastatdistricts.com/>

2. <https://www.karauli.rajasthan.gov.in/home/dptHome>

3. https://en.wikipedia.org/wiki/Karauli_district



CLIMATE CHANGE AND HUMAN HEALTH

DR. SUNIL KUMAR

LECTURE IN GEOGRAPHY, SIRSA (HARYANA).

ABSTRACT:

Globalisation of Trade, Sports, diseases, Currency as well as virus is common. Now climate change is a global process, its impact may affect communities by different and unequal ways. Some of these effects are relatively direct but some effects are less direct and involve shifts in our environment that, in turn, can affect human health. Fluctuating temperatures and other changes affect people globally. Population, climate change and biodiversity loss are closely linked.

KEYWORDS:

GLOBALISATION, TRADE, SPORTS, DISEASES, TEMPERATURE, CLIMATE.

INTRODUCTION

Many reports about death and pollution reveals that millions of premature death by diseases. We find the pollution remains responsible for approximately nine million deaths per year, corresponding to one in six deaths worldwide. It is clear that pollution is a planetary threat, and that is drivers, its dispersion and its effect on health transcend local boundaries and demand a global response.

Pollution means unwanted waste of human origin released to air land, water, and the ocean without regard for cost are consequences is an existential threat to human health and planetary health and jeopardises the sustainability of moderns society.

SOCIAL CATEGORY OF PERSON WHO ARE MOST AT RISK FROM CLIMATE CHANGE:

Climate changes and effects are universal or global because it affects all over and surroundings but some categories of people are more vulnerable than others. Climate changes and its impact are affected some categories more than others which is -

LOW INCOME GROUPS OF SOCIETY- The low income groups of society live with many factors that increase their vulnerability to the health effect of climate because these people likely to live in risk prone areas, such as urban heat islands, rural isolated areas, otherwise coastal or flood prone areas where poor maintained infrastructure. These areas often face air and water pollution that may be worsened by climatic events like severe storms. These conditions of habitat occur in their health in form of such as diabetes, cardiovascular, respiratory. Kidney diseases and many more. Limited transportation and access of health care, lack of education increase their vulnerability for his.

Some categories of society like poor mental health or trauma case related people are indigenous people of climate change.

In modern polluted environment over 200 chemicals,

including lead, methyl mercury, poly chlorinated biphenyls, arsenic organochlorine, and organophosphate pesticide, organic solvents and brominated flame retardants are neurotoxic to human and their impact widespread in modern environment. These chemicals affected all over human being not only survival things but also developing fatal and postnatal life more serious than adults. About pollution evidence strongly prove that exposure to particular manufactured chemicals, even at low doses can have adverse effects on fertility and pregnancy. Prenatal and early postnatal exposure to chemical also appear to be linked to an increased incidence of reproductive diseases later in life including endometriosis breast cancer, cervical cancer, uterine cancer and testicular cancer. Some pollutants reduced antibody of human beings and affected immune system.

The people if especially dependent on environment for sustenance or their living are much affected because they face threats of their homes food sources, culture due to flooding, land sliding deforestation, less of medical plants, i.e. climate change.

A sensitive group of children and pregnant women was also parts of damage of climatic changes. By extreme weather condition or extreme pollution level children and pregnant women may suffer much.

Climate related exposures may lead to adverse pregnancy outcomes, including spontaneous abortions, low birth weight, pre-term birth and risks to new born and infants, including increased neonatal death, dehydration, malnutrition, diarrhea and respiratory diseases.

Outdoor workers are often among the first to be exposed to the effects of climate. Severe climate changes may affect the health of outdoor workers through increases in ambient temperature, degraded air quality, extreme weather, vector borne diseases, industrial and altered built environment.

CLIMATE CHANGE IMPACTS ON HEALTH

While climate change is a global process, its impacts may affect communities in different and unequal ways. Some of these effects are relatively direct but some effects of climate change are less direct and involve shifts in our environment that in turn, can affect human health. For example, changes in temperatures and rain fall can affect the lifecycle of insects that transmit lyme diseases.

In India that have examined the health effects of ambient and house hold air pollutions over the last decades. There are now accepted techniques to derive estimates of health effects in India by reference to health effects studies done elsewhere.

The health burden from ambient and household air pollution exposures is no longer though to be limited to chronic and acute respiratory outcomes in men, women and children as it is generally accepted that there are also impacts on ischemic heart diseases stroke, cataracts and lung cancer. In addition that is increasing evidence of adverse pregnancy out comes, TB, asthma, exacerbation, other cancers, and cognitive impairments.

In India, Ministry of Health and Family welfare is controlling these factors of health, Pollution etc. The starring committee under MOHFW reveals some facts that air pollution exposure both household and ambient is responsible for a large proportion of the ill health in India, rivaling or exceeding nearly every other risk factor that has been evaluated including poor nutrition, smoking, alcohol, high blood pressure, obesity etc.

The person with chronic medical conditions, including cardiovascular disease, respiratory diseases, diabetes asthma and obesity are likely to increase over the coming decades, resulting in larger populations at risk of medical complications from climates related exposure.

REFERENCES

1. Mainguet, Monique, "Desertification: Natural background and Mis Management, Springer

publications.

2. Johnson, D.L. (1977), "The human dimensions of desertification, Economic Geography.

3. Rapp, A. (1974), "A Review of Desertification : Water, Vegetation and Man Stockholm," Secretariat for International Ecology.

4. Kassa, M. (1977), "Arid and Semi-arid lands; Problem and prospects." Agro Ecosystems.

5. WMO, (2013), Climate change and Desertification."

6. UNCCD (2013), Economic and Social impads of Desertification, Land Degradation and Draught."

7. United Nations (1994), International Convention to combat. Desertification, United Nations, New York.

8. G. Pickup (2017), Desertification and Climate change the Austrilian Perspective." Canberra.

9. PRAIS 4th UNCCD reporting and renew process, SURINAME.

10. C.,Ramesh (2009) Environment issues law and technology. An Indian Perspective, D.R. Research Publication, Delhi

11. Gupta, M.C. Manual on Natural Disaster Management in India, NIDM, New Delhi

12. NEERI: Traffic biggest Contributor to nrise pollution in Mumbai: study: dnaindia.com



BREAKING BARRIERS: AN ANALYSIS OF IMPLEMENTATION OF RIGHT TO EDUCATION FOR DIFFERENTLY ABLED PERSONS IN INDIA

SUNITA CHOUDHARY

RESEARCH SCHOLAR, MDS UNIVERSITY AJMER.

ABSTRACT:

Education is a fundamental right that should be accessible to every individual irrespective of their gender, caste, creed, religion, or physical disability. In India, the Constitution of India under Article 21A provides for the right to education for all children between the ages of six to fourteen years. Additionally, the Constitution of India under Articles 41, 45, and 46 also emphasizes the need to provide education to weaker sections of society. The Right of Persons with Disabilities Act (RPWD) of 2016 further strengthens this right by ensuring that persons with disabilities are not discriminated against in any field of life, including education. Despite these legal provisions, a large number of persons with disabilities in India still face obstacles in accessing education. This research paper aims to examine the implementation of the Right to Education for persons with disabilities in India and the challenges that need to be addressed to ensure that all children have equal opportunity and access to quality education.

KEYWORDS:

PERSONS WITH DISABILITIES, RIGHT TO EDUCATION, INCLUSIVE EDUCATION.

1. INTRODUCTION

“Education is the manifestation of perfection already in man” – Swami Vivekananda

The quote by Swami Vivekananda perfectly summarizes the importance of education. The objective of education is to bring about change in society by invoking the curiosity of the human brain. The manner of education has changed over time, during Vedic times, India had a Gurukul system of education which changed in ancient times to proper places of education like universities including Takshashila, Nalanda, Vikramshila, etc. The education system further changed due to many invaders amending it according to their wills and whims. The modern education system is a consequence of British rule in India. After independence, the government of India introduced many measures in form of acts and laws to promote education in India.

Right to Education Act (RTE) was enacted in India in 2009 with the aim of providing free and compulsory education to all children of India including those with disabilities. The act provides for establishing special schools, the appointment of special educators, the development of appropriate infrastructure, and the provision of free aids and assistive devices to students with disabilities. Additionally, in 2016, the Indian government launched the Accessible India Campaign (Sugamya Bharat Abhiyan) to create a barrier-free environment for persons with disabilities, including in educational institutions.

The government has taken several measures to implement RTE for people with disabilities (PWDs). However, despite all these initiatives, many challenges still exist, including a lack of accessible infrastructure like ramps, toilets, accessible transport, etc. which makes it difficult for the schools to provide quality education to PWDs. Another

challenge is the lack of awareness and sensitivity among teachers and other school staff toward PWDs. Many teachers are not trained to work with children with disabilities and special needs. This can lead to neglect and lack of support for these children, affecting their academic performance and overall well-being.

The lack of sensitivity is also reflected in the attitudes of parents and the community toward these children. Many parents are unaware of their rights under the RTE Act and do not know how to advocate for their children.

2. BACKGROUND

The World Health Organization (WHO) estimates that there are around one billion people or 15% of the world's population have experienced some form of disability. It estimates that around 93 to 150 million are children. The Global Partnership for Education estimates that 90% of children with disabilities in low and lower-middle-income countries do not go to school. In India, as per the Census 2011, there are approximately 26.8 million persons with disabilities, which amounts to 2.21% of the total population. Among them, the percentage of persons with disabilities who are illiterate is significantly higher than the national average. According to Global Campaign for Education (GCE) report 2014, children with disabilities have very low rates of initial enrolment. Children with disabilities have a higher likelihood of drop-out and leaving school early without transitioning to secondary school and beyond. According to another study by the World Bank analyzing India's 2002 National Sample Survey, children with disabilities were 5 and a half times more likely to be out of school.

Depriving disabled people of equal opportunities pushes

them into a vicious cycle of illiteracy-driven unemployment and thus inhibits them from coming out of poverty. Disability leads to the social stigma which leads to invisibility and exclusion from mainstream opportunities. This leads to a lack of access to services which often means a lack of access to quality education for children. A lack of access to quality education limits opportunities to escape poverty such as – through employment, improved health, etc. This leads to further vulnerability and exclusion, poverty deepens which is further passed on to the next generation, and this cycle continues until the barriers to good education are broken.

3. BARRIERS FACED BY PEOPLE WITH DISABILITIES

In India, persons with disabilities face multiple barriers while accessing education. These barriers could be physical, psychological, or structural.

According to a study by the UN Human Rights Office of the High Commissioner, schools follow a discriminatory approach and due to that children with disabilities are deprived of education. Then some schools prevent the children from joining the schools based on the impairment of the child. According to the UNESCO report on school violence and bullying, 2016, children with disabilities are at an increased risk of school violence and bullying, thus preventing them from enjoying the right to education.

Barriers faced by PWDs in accessing education:

3.1 ARCHITECTURAL AND DESIGN BARRIER

Persons with disabilities face significant physical barriers, which make it difficult for them to access good education. The infrastructure of most educational institutions is not designed to cater to the needs of the majority of PWDs. For instance, the lack of ramps, elevators, or wheelchair friendly restrooms makes it challenging for PWDs to access these facilities and thus makes it difficult to access educational institutions. In addition, the public transportation facilities are not adequately designed to accommodate the needs of PWDs. For instance, the railways do have a reserved coach for disabled people, but there are no accessible ways the PWDs can get on the coach. They still have to rely on either their caregivers or have to undergo extreme struggle to use these coaches. Similarly, many state public buses also have reserved seating for differently-abled persons but don't have facilities to store their wheelchairs, as well as no hydraulic lifts available for them to get on the bus without getting off the wheelchair.

3.2 PSYCHOLOGICAL BARRIERS

PWDs often face psychological barriers that affect their mental health and prevent them from accessing education. Society's negative attitudes towards PWDs often result in stigmatization and discrimination which leads to low self-esteem and lack of confidence among PWDs. Such negative attitudes make PWDs feel excluded from society and prevent them from accessing education on an equal footing to others. Even after so many hardships, if people

with disabilities make it to regular schools, they are met with bullying and other discriminatory practices within the school, which makes a dent in their learning and potential forever.

3.3 STRUCTURAL BARRIERS

PWDs also face structural barriers that limit their access to education. For instance, the lack of inclusive educational policies, insufficient funding, and inadequate training for teachers to meet the needs of PWDs are some of the significant structural barriers. Teachers are often not adequately trained to communicate with PWDs which often results in the disengagement of these children. According to a report by the World Bank, only 2% of the Indian teaching force has received any training in teaching children with disabilities. In addition, the lack of availability of braille books, sign language interpreters, and other assistive technologies are examples of additional barriers.

4. LEGAL PROVISIONS TO ENSURE THE RIGHT TO EDUCATION FOR PERSONS WITH DISABILITIES

The government of India has enacted several

laws and policies to ensure the right to education for PWDs. Education for children has found its place in the Constitution of India predominantly:

i. As a fundamental right: Article 21A of the Constitution of India provides a fundamental right of free and compulsory education to children between the age of 6 to 14 years.

ii. As a fundamental duty: Article 51A (K) of the Indian Constitution states that all parents or guardians shall provide opportunities for education to their child or ward between the age of 6 to 14.

iii. As a directive principle for the state policies: The state shall endeavor to provide free and compulsory education for all children until they complete the age of 14 years.

Additionally, The Rights of Persons with Disabilities Act (RPWD), 2016, provides the following provisions related to the right to education of children with disabilities under sections 16 and 31 of the act:

i. Inclusive education: According to section 16, the state government and local authorities are to ensure that all educational institutions funded or recognized by them provide inclusive education to children with disabilities.

ii. Non-discrimination: The educational institutions are required to admit them without discrimination and provide education and opportunities for sports and recreational activities equally with others.

iii. Proactive measures: The section also states that the institutes should detect specific learning disabilities in children at the earliest and take suitable pedagogical and other measures to overcome them.

iv. Accessibility: The provision of transportation facilities to children with disabilities and the attendance of children

with disabilities having high support needs are also included in this section.

v. Reasonable accommodation: The building, campus, and various facilities should be made accessible for children with disabilities by provisions of ramps, elevators, and accessible restrooms.

vi. Choice of Education: Section 31 of the RPWD Act, 2016, states that "Notwithstanding anything contained in the rights of children to Free and Compulsory Education Act, 2009, every child with benchmark disability between the age of six to eighteen years shall have the right to free education in a neighborhood school or a special school of his choice."

5. CONCLUSION

To address the challenges of implementing the RTE Act for people with disabilities, several solutions need to be considered. One of the most important solutions is the development of appropriate infrastructure and facilities in schools. This includes the construction of ramps, accessible toilets, and other facilities that are necessary for students with disabilities. In addition, schools need to have the necessary equipment and technology to provide quality education to students with disabilities.

There is a need for the development of training programs for teachers and other school staff. These programs should focus on disability awareness and sensitivity, as well as the skills and knowledge needed to provide appropriate accommodations. This will help teachers to better understand the needs of students with disabilities and provide them with the necessary support and resources.

The government can also play an important role in promoting awareness and sensitivity toward people with disabilities. This can be done through public education campaigns, as well as the provision of resources and support for parents and communities. The government can also work with civil society organizations to promote disability rights and advocate for the inclusion of people with disabilities in all aspects of society.

REFERENCES

1. World Health Organization (WHO).
2. Persons with Disabilities (Divyangjan) in India – A Statistical Profile, 2021, Government of India, Disability Affairs.
3. Equal Right, Equal Opportunity: Education and Disability, 2014, Global Campaign for Education, Handicap International.
4. Convention on the Rights of Persons with Disabilities (CRPD).
5. School Violence and Bullying: Global Status Report, 2016, UNESCO



INITIATIVES RELATED TO CORPORATE GOVERNANCE FOR INDUSTRIAL SECTOR IN INDIAN CONTEXT

PRACHI

ASSISTANT PROFESSOR, S.D. COLLEGE OF MANAGEMENT STUDIES, MUZAFFARNAGAR.

DR. SHRAVAN KUMAR

ASSISTANT PROFESSOR, GOVT. COLLEGE SANCHORE.

ABSTRACT:

In the years 2020 and 2021, many concessions were given in the rules, regulations and policy issues for India's corporate sector. In both these years, policy makers and regulators have dealt with a lot of sympathies to the many demands and requests of the industry. However, despite these concessions, the engine of development has not been able to run at the desired speed. In such a situation, under all these arrangements, we should consider those issues in which we could not get success according to the target. Especially in the realms of ESG (Environment, Social and Governance) there is a dire need to pay attention to such shortcomings. One such litmus test is going to be held in the ambit of corporate governance in the next three months. However, it is expected that no further demand will arise regarding relaxation in the rules. India is an important economic power in the world with a huge consumer market. Obviously, India will have to tailor its policy discussions according to the expectations of global investors. Many of these issues can be included in the mainstream national agenda in 2022. In this context, the ability of the regulators to 'stick to their ways' will also have to be brought to the fore. Because India is an important economic power in the world with a huge consumer market. Obviously, India will have to tailor its policy discussions according to the expectations of global investors. Many of these issues can be included in the mainstream national agenda in 2022.

KEYWORDS:

DOMESTIC POLITICS AND GOVERNANCE, INDIA, INTERNATIONAL TRADE AND FINANCE, AOA, CAPITAL, CORPORATE GOVERNANCE, ESG, SEBI.

MEANING OF CORPORATE GOVERNANCE:

Any organization that works in the public or private sector and understands its responsibility towards its employees, customers, common citizens (society) and shareholders and takes care of all these along with the development of the organization, then said It can be seen that the functioning of such organization is being conducted on the basis of ethics.

The fulfilment of moral obligations towards the society in this whole process is called Corporate Social Responsibility.

The concept of Corporate Governance is related to running public and private organizations on the basis of ethics i.e., it is related to ethical based governance.

DIFFERENT MODELS OF CORPORATE GOVERNANCE:

There are several models of corporate governance prevalent globally, which represent the funding of various institutions and the laws and regulations made for the organization, which are as follows-

ANGLO SAXON MODEL (ANGLO AMERICAN):

This model is based on the corporate objectives set by the owners of the organization.

In this, more attention is paid only to the interests of the shareholders.

This model is prevalent in the United Kingdom and the

United States.

CONTINENTAL MODEL (FRANCO GERMAN MODEL):

This model sees the firm/company as a collective entity.

In this, along with the interest of the shareholders, social responsibility is also emphasized towards the customers, employees, local residents.

This model is prevalent in India and other continental countries.

JAPANESE MODEL:

The Japanese industrial structure is based on a network of supplier and buyer companies.

The companies are known to have extensive cross shareholding between the members and their main banks.

These organizations have long-standing relationships with various firms and banks that provide them with finance.

FAMILY-OWNED COMPANY MODEL:

This model is run by a family-owned business.

This model is popular in Asian and Latin American countries.

In this, companies owned by families often dominate the market.

THE CHALLENGES

Corporate governance is a combination of systems, principles and procedures for running a company. They provide guidelines on how to operate and control the company in a way that enhances the quality of the company and benefits those concerned in the long run. Here the scope of the people concerned includes the board of directors of the company, the employees, the customers and the society as a whole. In this way the management of the company becomes a trustee for all the other people.

The following challenges exist especially before corporate governance in India-

- In this the balance of executive and non-executive directors is not maintained. An attempt is made here to highlight only the prominent ones.
- Periodic evaluation is not done due to which transparency is lost somewhere and the performances are not result oriented.
- Even after the SEBI committee has issued guidelines for the appointment of an audit committee or given a broad definition of independent directors, the actual situation seems to be getting worse.
- Accountability is limited only to the shareholders or the company, it is not to the society at large. Be aware that the directors have their own interests in mind.
- Due to this there have been many incidents of failures and scams in the corporate sector.
- Cyber threat is one of the most important challenges facing the modern governance system.

Keeping in mind the corporate governance, CSR has been arranged, but in the recent report released by Prime Database on CSR, many problems related to it have been highlighted, which shows that CSR provision has been completely successful in fulfilling its objectives. have not happened.

The benefits of CSR activities do not reach remote areas and rural areas. As a result, the real needy are deprived of their benefits.

DISTRIBUTION OF ROLES OF CMD

In order to improve corporate governance, Indian industry should engage in the exercise of bifurcating the roles of chairperson and managing director (MD) in true sense. According to the rules made by SEBI, the regulator of the securities market, from April 1, 2022, the posts of chairman and managing director (CMD) will have to be separated. This rule will apply to the top 500 units in terms of market capitalization. Originally this rule was to be effective from mid-2020 itself. However, on the request of the industry, two more years were given to comply with this rule. On January 10, 2020, this concession was given regarding the compliance of SEBI (LODR) (Amendment) Regulation 2020. According to the SEBI Chairman's public statement on this issue, "Separation of both the characters will reduce the concentration of unnecessary powers in

the hands of a single person".

Family businesses also need to swiftly address concerns about a weak governance structure. These include issues such as related party transactions. Apart from these, they will also have to actively pursue diversity initiatives and whistle blower policies.

FAMILY BUSINESS TOPS

Notably, 300 of the top 500 companies in India are family businesses. One of the big arguments of the industry is that these promoter-executives have started from the ground up and have taken their business to the top. So their wealth is concentrated in these units. Family businesses also need to swiftly address concerns about a weak administrative structure. These include issues like related party transactions. Apart from these, they will also have to actively pursue initiatives to ensure diversity and whistle blower policies. Indeed, the administrative approach or practices of such businesses should reflect the needs of the capital markets of the current era. Meeting and exceeding these standards can achieve a "premium" level of assessment in the process of better processing information about them. Instead of pursuing 'heritage' issues, there will not be much of a response.

For the past few years, several regulatory laws have come to the fore in the Indian industry to strengthen the aspects related to corporate governance. These also include issues related to related party transactions. However, moving forward on this path is still showing reluctance from some quarters. To motivate them, the distribution of the post of CAD can prove to be an important factor.

UNBRIDLED POWERS OF JOINT CMD POST

When the same person holds both the posts, he effectively becomes the center of power. He is the only person who decides everything. Because of his position, he can delay any issue. The chairperson will normally be a non-executive (unless expressly written to the contrary). He will have complete control over the agenda issues of the board. He will conduct the activities of the board meetings. If necessary, he will also have the right to adjourn the meeting. In matters related to the board, he not only decides the agenda items but also answers all the questions and issues. In this context, the MD will 'report' to the Board. The chairperson is the ex-officio chairman of the board. In most articles of associations (AoA), the chairperson has the casting vote in case of a deadlock. If the role of CMD is shared, then in case of any deadlock, that person has the right to vote twice.

The true test of government standards is when the following issues are discussed and decisions are made. These may include issues such as hiring of key managerial personnel, related party transactions, diversification plans for new businesses or radically different product lines.

Many of the board's discussions are related to regular business and rules related issues. The proper test of government standards is when the issues mentioned below are discussed and decisions are taken. These include

issues such as recruitment of key managerial personnel, related party transactions, new businesses or diversification plans for completely different product categories. Good results require a sound process involving healthy discussions in board meetings. Before this process, a special sub-committee of the board should be prepared on related issues. For example, the Board Committee on Nomination and Remuneration discusses KMP-related reinstatements. An appropriate approach in this regard would be for the MD (who is a full-time chief executive) to brief the board members on the process, merits and risk factors and make their recommendations. After that the process for the board to discuss with the data points and take a logical decision can take a practical form. Despite the differences on the issue, this whole exercise of bringing up all those points in the discussions of the board can prove to be beneficial.

Alternatively, if the board has a 'puppet' chairperson (basically brought in by the MD), then the exercise of separating the roles of the chairperson and the MD would be futile. Crafty companies may try to circumvent this regulation by appointing an executive vice-chairperson or appointing a family member as chairperson who does not qualify as a relative under the Companies Act, 2013. Any such exercise can defeat the very purpose of such regulation. This regulation can prove effective only if the chairperson has the moral courage and seriousness to stand against the powerful MD.

LONG TERM CAPITAL

With stronger standards of governance, India's corporate sector can look forward to better inflow of capital and support from investors (both in the capital market and private investments). Family enterprises dominate in India. These enterprises struggle to balance the roles and responsibilities of family members in the business with the administrative aspects of professional leadership outside the family. In such a situation, it has to be seen whether such family enterprises can protect their speed of decision making during the business development journey.

Many family businesses in India have a presence in the Indian markets for one or two generations. In such a situation, the changes mentioned above have started a new era of thinking in traditionally family-owned or family-managed businesses. There are valid reasons behind this as well. Numerous research studies have consistently shown that family-owned firms have a higher ability to make long-term decisions and hedge their bets in family businesses than do institutionally managed firms. The ability to get executive level managers from outside the family (non-family C-suites) and independent directors on the board becomes critical. Much of the ability to grow a business or the exercise of keeping business ideas relevant rests on this axis. In fact, business owners are expected to play the role of "promoter-shareholder". This is where the ability to separate your role as chief executive from your role as a manager or administrator becomes critical.

We have already seen that playing a 'puppet game in the

board room' can only defeat the very purpose behind these regulations. In such a situation, only time will tell whether the Indian industry has the ability to make these new regulations meaningful or not.

CONCLUSION:

After corporate bankruptcies in the recent past, the need for corporate governance is felt more than ever, not only in the Indian scenario but globally. While the corporate governance system has proved to be effective for the economy and in safeguarding the interest of the shareholders, yet we still need more efficient monitoring, transparent internal audit system, efficient board and management that provide leadership to an effective corporate governance. can do. Also be helpful in promoting the strategic management of emerging new companies and providing stability to the market.

REFERENCES

1. Bailey, A. D. Jr., Gramling, A. A., Ramamoorti, S. (2003). *Research Opportunities in Internal Auditing*. Altamonte Springs, FL: Institute of Internal Auditors Research Foundation.
2. Be'dard, J., & Gendron, Y. (2010). Strengthening the financial reporting system: Can audit committees deliver? *International Journal of Auditing* 14 (2), 174-210.
3. Brundin, E. & Nordqvist, M. (2008). Beyond facts and figures: the role of emotions in boardroom dynamics. *Corporate Governance: An International Review*, 16 (4), 326-41.
4. Cadbury Committee Report (1992). *The Financial Aspects of Corporate Governance*. Gee and Co. Ltd. London.
5. Carcello, J. V., Hermanson, D. R., & Ye, Z. S. (2011). Corporate Governance Research in Accounting and Auditing: Insights, Practice Implications, and Future Research Directions. *Auditing: A Journal of Practice & Theory*, 30(3), 1-31.
6. Norwani, N. M., Mohamad, Z. Z., & Chek, I. T. (2011). Corporate Governance Failure and Its Impact on Financial Reporting within Selected Companies. *International Journal of Business and Social Science*, 2(21), 205-213.

7. OECD Principles of Corporate Governance. (2004). from Organisation for Economic Co-Operation and Development.

8. Parker, L.D. (2007b). Internal governance in the non profit boardroom: a participant observer study. *Corporate Governance: An International Review*, 15(5), 923-34.

9. Soobaroyen, T., & Mahadeo, J. D. (2012). Do corporate governance codes improve board accountability? Evidence from an emerging economy. *Qualitative Research in Accounting & Management*,

9(4), 337-362.

10. Turley, S., & Zaman, M. (2004). The Corporate Governance Effects of Audit Committees. *Journal of Management and Governance*, 8, 305-332.



GOOD GOVERNANCE AND WOMEN EMPOWERMENT IN INDIA: CRITICAL ANALYSIS IN REFERENCE OF NIRBHAYA SCHEME AND PRADHAN MANTRI UJJWALA YOJANA.

SIMRANDEEP KAUR DHILLON

STUDENT (DEPARTMENT OF POLITICAL SCIENCE), SRI GURU NANAK GIRLS COLLEGE, SRI GANGANAGAR (RAJ.)

ABSTRACT:

The term good governance is used as successful achievement of the political and institutional goals. It relates to the process of development where the major concerns are to minimize the issues regarding human being development e.g. Human rights, civil culture, Economic development, Women Empowerment, Political and social rights etc. Since 2014 on 25 December every year Good governance day observed in the country called "Sushashan Divas" on the birth occasion of former Prime Minister Late Shri A.B. Vajpayee Ji. Governance is an all-inclusive term covering various aspects of the organizations and structure of government which have an impact on the efficiency of government and the delivery of public services and incorporates accountability, transparency, financial devolution, political administrative and administrative vigilance to check corruption. For the beneficiaries of women the government has been adopted different schemes and programs.

The place of women in India has always been very important, and this is the reason that women here are considered to be the form of Goddess. Looking at the statistics, it is known that there has been an increase in the cases of female harassment in India since last few years. But the other positive aspect in this context is that the government has recognized the issues related to women and introduced different schemes to fight with the atrocities against the women and uplift their spirit, great opportunity for contribution in countries economy and development. various schemes and campaigns are being implemented by the Government of India from time to time for the empowerment of women. The national credit fund for women, Beti Bachao Beti Padhao scheme, Ujjwala yojana and Nirbhaya Yojana are examples of such schemes. Through these schemes, not only women empowerment has got a boost in the country but women have also got economic support. Therefore, both the above schemes are the best examples of good governance in the country. This paper will focus on the role of government in the empowerment of women, various schemes or programs initiated by the government of India and critical analysis of the policies of the government mainly Nirbhaya scheme or PMUY.

KEYWORDS:

GOOD GOVERNANCE, WOMEN EMPOWERMENT, WELFARE SCHEMES, AWARENESS, WELLNESS OF WOMEN.

INTRODUCTION:

The concept of women empowerment has under a sea change from welfare oriented approach to equity approach. It has been understood as the process by which the powerless gain a greater control over the circumstances of their lives. What is governance and good governance? Recently the terms governance and good governance are being increasingly used in development literature. Governance is the process of decision making and the process by which decisions are implemented, an analysis of governance focuses on the formal and informal actors involved in decision making and implementing the decisions made and the formal and informal structures that have been set in place to arrive at and implement the decisions.

GOOD GOVERNANCE: IT HAS 08 MAJOR CHARACTERISTICS.

- Participatory
- Consensus oriented
- Accountable
- Transparent

- Responsive
- Effective and efficient
- Equitable and Inclusive
- Follows the rule of law

It assures that corruption is minimized, the views of minorities taken into account and the voices of the most vulnerable in society are heard in decision making government of India has initiated lot of schemes for the empowerment or welfare of women.

OBJECTIVES OF THE STUDY:

These are the major objectives of the study-

- To define the status of women empowerment in India
- To study the government scheme for women empowerment
- To analyze the status of Nirbhaya and Ujjwala Yojana

REVIEW OF LITERATURE:

1. Dimri, K. (2019). In her article entitled "Empowering Women: Striding Towards Progress" the author tried to examine the status of Women empowerment and also discussed the Nirbhaya Fund.
2. Dabadge, A., Sreenivas, A., & Josey, A. (2018). In the article entitled "What has the Pradhan Mantri Ujjwala Yojana" the authors described a detailed analysis of PMUY. In the article they tried to defined every aspects of the PMUY.
3. Ranjan, R., & Singh, S. (2020). "Household cooking fuel patterns in rural India: Pre-and post-Pradhan Mantri Ujjwala Yojana", this article discuss on the Pradhan Mantri Ujjwala Yojana in detailed. In this article the author's gives a detailed analysis about the Household cooking fuel patterns in rural areas of India, and also gives a comparative study of the LPG uses status pre and post the PMUY.
9. Swayasjdha
10. Swa Shakti group
11. Support to training and employment programme for women
12. Swalamban
13. Swadhar
14. Integrated child protection scheme
15. Dhanalakashmi 2008
16. Short stay homes
17. Ujjwala
18. Beti bachao beti padhao scheme
19. One stop center scheme
20. Women helpline scheme
21. NIRBHAYA
22. Mahila police valunteers
23. Nari Shakti puraskar

WELFARE SCHEME FOR WOMEN IN INDIA:

Under article 15 (3), the constitution of India allows for positive discrimination in favor of women. The article, under right to equality, states that "Nothing in this article shall prevent the state from making any special provisions for women and children". In addition, the directive principles of state policy states that: The state shall in particular direct its policy towards securing that the citizen's men and women equally have the right to an adequate means of livelihood. Prime Minister Shri Narendra Modi, addressed the nation from the ramparts of Red fort on 15 August gave a powerful message to people asking them to take a pledge to stop disrespecting women. "A distortion has crept in our conduct and we at times insult women can we take a pledge to get rid of this in our behavior" the prime minister said. Mentioning the Nari Shakti PM Modi said that "Respect for women is an important pillar for India's growth we need to support our Nari Shakti".

The government programs for women development began as early as 1954 in India but the actual participation began only in 1974. At present the government of India has over 34 schemes for women operated by different department and ministries. Some of these are as follow.

1. The Rashtriya Mahila kosh (National credit fund for women) was set up in 1993 to make credit available for lower income women in India.
2. Mother and child tracking system
3. Indra Gandhi matritva sahyaog yojana
4. Conditional maternity benefit plan
5. Rajiv Gandhi scheme for empowerment of adolescent girls
6. Digital laado – giving digital wings to daughters
7. Mahila samridhi yojana, October 1993
8. Women entrepreneur development programme given top priority in 1997-98

NIRBHAYA SCHEME:

The government of India had set up a dedicated fund called Nirbhaya. Fund for implementations of Initiatives aimed at enhancing the security and safety for women in the country. An empowered committee of officers constituted under Nirbhaya framework appraises and recommends the proposals for funding under Nirbhaya fund is conjunction with the concerned ministries/ departments /Implementing Agencies .After Appraisal by the Ec the concerned ministries departments obtain approval of their respective competent financial authorities to release fund out of their respective budgets and implement the approved schemes directly through states implementing agencies.

Under the Nirbhaya Fund, one of the schemes namely "One Stop Centre (OSC) Schemes" is implemented across the country since 1st April 2015. OSCs aim to facilitate women affected by violence with range of integrated service under one roof such as police facilitation, medical aid, providing legal and psycho-social counselling and temporary shelter. OSCs are to be set up within 2 kms radius of the hospitals or medical facilities either in new constructed building in an approved design or in per- existing buildings. Under the scheme, One Stop Centers are being set up in all districts of the country. So far 704 OSCs have been operationalized and more than three lakh women have been assisted through them.

The details of funds released and utilized under the OSC scheme during last three years, State/UT-wise including Karnataka, Rajasthan and Assam are placed at

ANNEXURE-I.

The details of number of centers set up under the scheme, State/UT-wise including Rajasthan and Assam are paced at

ANNEXURE-II.

The ministry of women and child Development has

decided to implement the umbrella scheme for safety, security and empowerment of women as an integrated women empowerment programme under the name 'Mission Shakti', including the component of One Stop Centers. For providing speedy assistance and services distressed and violence affected women at OSCs the Ministry has decided to set up more OSCs, in areas which are distant from district headquarters or having high rates

of crime against women, to enhance the costing provisions for OSCs and to further enhance the synergy and coordination of OSCs with the other initiatives of the government, including those under Nirbhaya Fund and under mission Shakti. The information was given by the union Minister for women and child Development, smt. Smriti Zubin Irani, in a written reply in the Lok sabha.

TABLE NO. 01: THE STATE/UT-WISE DETAILS OF FOUNDS RELEASED AND UTILIZED UNDER THE SCHEME(OSC)DURING THE LAST THREE YEARS.

(Amount in Rupees)

S.No.	States /UTs	Amount released			Utilization
		2018-19	2019-20	2020-21	
1	Andaman and Nicobar Islands	3687641	4159792	3859069	7990951
2	Andhra Pradesh	39063148	26099278	21105250	35143545
3	Arunachal Pradesh	78202084	13418151	52014408	8811508
4	Assam	78695087	80408520	63614400	15492697
5	Bihar	30832455	104609180	70966339	989813
6	Chandigarh	930799	1500450	3383756	2381249
7	Chhattisgarh	66244372	67738483	35320987	87736269
8	Dadra and Nagar Haveli and Daman and Diu	50000	7345503	4601200	306879
9	Delhi	0	36255285	18304950	8851903
10	Goa	492000	1500450	3000900	392000
11	Gujarat	562669778	67951666	85084669	63336101
12	Haryana	47960546	40192416	40443694	42362758
13	Himachal Pradesh	10118850	31729794	19805400	1703950
14	Jammu and Kashmir	15020425	9639473	22483933	7253204
15	Jharkhand	70436941	40853107	69124908	3553664
16	Karnataka	59444419	58203580	73508758	17423208
17	Kerala	28331849	14090453	23705850	8516076
18	Ladakh-UT	0	0	6545042	2203172
19	Lakshadweep	0	2091225	1350225	0
20	Madhya Pradesh	112391390	167092445	104431900	60519822
21	Maharashtra	38929425	66998501	64620010	21344257
22	Manipur	35722445	24884407	50193815	20436592
23	Meghalaya	18639947	37430224	21161595	9674467
24	Mizoram	27264535	21870881	17263928	17065675
25	Nagaland	45487024	20934647	33590577	42979808
26	Odisha	77459998	20934647	93155192	15005985
27	Puducherry	4766836	4376136	7201800	0

28	Punjab	52633488	35183739	48461272	33738091
29	Rajasthan	30860275	67711508	56686911	227338091
30	Sikkim	3923225	6809569	6601800	123608
31	Tamil Nadu	113995447	71359691	106060397	117407585
32	Telangana	58948915	62446827	77573415	30635786
33	Tripura	26901349	6001800	15603600	0
34	Uttar Pradesh	222830497	123193989	228832664	129811493
35	Uttarakhand	27225409	22907445	27308659	30360381

Source: Statistical website, Govt. of India.

TABLE NO. 02: THE STATE/UT-WISE DETAILS OF NUMBER OF CENTERS SET UP UNDER THE SCHEME (OSC)

S. No.	States /UTs	Number of OSCs set up
1	Andaman and Nicobar(UT)	03
2	Andhra Pradesh	13
3	Arunachal Pradesh	24
4	Assam	33
5	Bihar	38
6	Chhattisgarh	01
7	Chandigarh	27
8	Dadra and Nagar Haveli and Daman &Diu (UT)	03
9	Delhi (UT)	11
10	Goa	02
11	Gujrat	33
12	Haryana	22
13	Himachal Pradesh	12
14	Jammu& Kashmir (UT)	20
15	Jharkhand	24
16	Karnataka	30
17	Kerala	14
18	Lakshadweep (UT)	01
19	Ladakh (UT)	02
20	Maharashtra	37
21	Madhya Pradesh	52
22	Manipur	16
23	Meghalaya	11
24	Mizoram	08
25	Nagaland	11

26	Odisha	30
27	Punjab	22
28	Puducherry (UT)	04
29	Rajasthan	33
30	Sikkim	04
31	Tamil Nadu	34
32	Telangana	33
33	Tripura	08
34	Uttar Pradesh	75
35	Uttarakhand	13
36	West Bengal	00
Total		704

Source: Statistical website, Govt. of India.

PRADHAN MANTRI UJJWALA YOJANA:

In May 2016 ministry of Petroleum and Natural gas (MOPNG) introduced the Pradhan Mantri Ujjwala Yojana as a flagship scheme with an objective to make clean cooking fuel such as LPG available to rural and deprived household which were otherwise using traditional cooking fuels such as firewood, coal, cow dung cakes etc. usages of traditional cooking fuel had detrimental impacts on the health of rural women as on the environment. The scheme was launched on 1st may 2016 in Ballia, Uttar Pradesh by Prime Minister Shri Narendra Modi.

In the first Year of its launch, the connections distributed were 22 million against the target of 15 million. As of 23 October 2017, 30 million connections were distributed, 44% of which were given to families belonging to scheduled castes and scheduled tribes . The number crossed 58 million by December 2018. In 2018 Union Budget of India, its scope was widened to include 80 million poor households. 21000 awareness camps were conducted by oil marketing companies (OMC). The scheme led to an increase in LPG consumption by 56% in 2019 as compared to 2014. The highly popular scheme has benefited over 14.6 million BPL families in Uttar Pradesh, 8.8 million in west Bengal 8.5 million in Bihar, 7.1 million Madhya Pradesh and 6.3 million in Rajasthan. In the Union Budget of 2021-2022, the government announced that 1 Crore more connections be provided under this scheme.

At the 107 the Indian Science Congress held in January 2020 in Bengaluru, Narendra Modi declared that technology has helped India “in recognizing the 8 Crore [80 Million] women who were still using coal or wood for cooking” and also “in understanding how many new distribution centers must be built, via the help of technology. The national Family Health Surveys demonstrate significant improvement in access to cleaner cooking fuels due to PMUY. Yearly growth in access to cleaner fuel accelerated around 2015 and increased by

almost seven times, 0.8% in rural areas before 2015 to 5.6% after

The target under the scheme was to release 8 Crore LPG Connection to the deprived households by March 2020. On 7th September 2019, Hon’ble Prime Minister of India handed over the 8th Crore LPG connection in Aurangabad, Maharashtra. The release of 8 Crore LPG connection under the scheme has also helped in increasing the LPG coverage 62% on 1st may 2016 to 99.8% as on 1st April 2021. Under the Union Budget for FY 21-22, provision for release of additional 1 Crore

According to the latest Govt. reports under PMUY 1.0 total 94969244 LPG Connections has been distributed to the rural women up to 1 September 2022. And there were 15087935 LPG Connections has been distributed under PMUY 2.0 up to 1 September 2022. The impact of this scheme can be identified with these data analysis that in the financial year of 2014-15 the domestic sale of the LPG was 16041, but in the financial year of 2021-22 it was 25502. So a growth rate of 59 percent can be seen in the LPG distribution. The another scenario shows that in April 2014 total domestic LPG users were 14.52 crore across the country, in which number of PMUY users were zero, but in the April 2022 the total number of LPG users were 30.53 crore in which number of PMUY users were almost 9 crore. It shows the successful ratio of the PMUY Scheme.

CONCLUSION:

The study reveals that women empowerment refers to increasing the spiritual, political, social, educational, gender or economic strength of individual or communities of the women. Govt. of India made a lot of efforts to improve the conditions of women in the country. The different kind of govt. schemes related to women empowerment had played a major role to change the life style and social status of women in the country. These schemes also improved the sense of self-importance

among the women of the country. These policies like Beti Bachao, Beti Padhao, Nirbhaya Scheme, PMUY and Dhanalakshmi also ensures the safety and wellness of the women and also had a great contribution in the upliftment of the status of women in the country.

REFERENCES

1. Constitution of India, December 2007, Retrieved 21 June 2014.
2. Schemes for Economic Empowerment of poor women, Govt. of India, Press Information Bureau. 6 March 2013, Retrieved 21 June 2014.
3. www.pib.gov.in/pressreleasepage.aspx?PRID=174323/
4. www.pmuy.gov.in
5. Sharma, Anshu (19 December 2018), Government expend eligibility criteria to meet Pradhan Mantri

Ujjwala Yojana targets, live mint. 14 September 2019.

6. Rural India's economy strengths linked to young scientist, PM in Bengaluru, Hindustan Times, Bengaluru, 3 January 2020. Achieved from the original on 3 January 2020.

7. Dimri, K. (2019). Empowering Women: Striding Towards Progress. *Deliberative Research*, 43(1), 1-6.

8. Dabadge, A., Sreenivas, A., & Josey, A. (2018). What has the Pradhan Mantri Ujjwala Yojana achieved so far. *Econ Polit Wkly*, 53(20), 69-75.

9. Ranjan, R., & Singh, S. (2020). Household cooking fuel patterns in rural India: Pre-and post-Pradhan Mantri Ujjwala Yojana. *Indian Journal of Human Development*, 14(3), 518-526.



IMPRINTS OF ENVIRONMENTAL JURISPRUDENCE IN INDIA: NATIONAL GREEN TRIBUNAL V/S ENVIRONMENTAL POLLUTION

ETI GUPTA

RESEARCH SCHOLAR, DEPARTMENT OF LAW, UNIVERSITY OF RAJASTHAN.

ABSTRACT:

Environmental law has had a worldwide surge since the start of the 1990s. Since then, Environmental Jurisprudence has advanced significantly. In a series of decisions, the Supreme Court had advocated for the creation of environmental courts. The National Green Tribunal was established on October 18, 2010, in the year 2010. It was intended to be a specialized organization to handle issues that had a multidisciplinary nature. The tribunals currently function as systems that have improved upon their original flaws. This paper aims to analyse the creation of the National Green Tribunal as well as the legal developments and reforms it has spurred. This essay will examine the study of many tribunal orders as well as the constraints that have constrained the tribunal's goal. Presently, there are more than 1200 environmental courts devoted to resolving environmental issues. India has made progress in this direction, and good governance and enforcement are crucial for realizing the 2030 Agenda for Sustainable Development. The National Green Tribunal's main goal is to devote all of its resources to protecting the environment, using all of its authority to reduce negative environmental effects and offer remedies and compensation where necessary. The National Green Tribunal was established in order to help increase the enforcement of environmental law in India, where policy enforcement has historically lagged. It focuses on a succinct history of legislation that were developed in India to preserve the environment and pursue environmental justice. The article also provides a brief explanation of individual National Green Tribunal interventions that had a significant positive impact on the environment and society at large.

KEYWORDS:

INTRODUCTION:

India's legal system has long been overworked due to a massive backlog of cases. To lighten the caseload on the current courts, it became necessary to establish a distinct environmental court. The National Green Tribunal was established after a drawn-out process that took into account a number of different issues. The background of the Constitution has to be considered first. Since the 42nd Amendment Act's insertion, the Constitution has gradually changed from being devoid of environmental protection measures to including a number of environmental protections. The second aspect that needed to be taken into account was India's participation in international conferences and conventions. The Stockholm Declaration of 1972, which highlighted the need for adequate action to improve the environment on a worldwide scale, is sometimes referred to as the international "Magna Carta" of the environment. Following this, the Parliament enacted various pieces of legislation, including the addition of Article 48A to the Constitution. India was required to provide cures and solutions to those impacted by pollution and other environmental deterioration during the United Nations conference on environment and development. The Supreme Court in the Oleum Gas Leak case also highlighted the need for creating separate courts to handle environmental issues and disputes. In the Oleum Gas Leak Case, Justice P.N. Bhagwati ordered expert panels to assess the degree of environmental degradation. It was the

leading argument in favour of the requirement for "neutral scientific competence" to support well-informed decisions. These courts would have the technical knowledge and skills to properly handle environmental protection-related disputes. The National Environmental Tribunal Act, 1995 was passed by Parliament to address the need for specialised courts to handle environmental issues, but it was never put into effect. The National Appellate Authority Act, which was later passed, had its own drawbacks, including a limited scope of authority and significant gaps in the composition that weren't properly filled. Two further instances, Indian Council for Enviro-Legal Action v. Union of India and AP Pollution Control Board, added support to the notion of creating environmental courts. The court believed that because environmental scientists and other technical experts would be involved in the process, the environmental courts would benefit from their expertise. In the case involving the Indian Council for Enviro-Legal Action, the Supreme Court raised the idea of creating environmental courts.

The Court believed the establishment of environmental courts would be beneficial in light of the fact that criminal court cases involving the Water and Air Act never came to a resolution, either because of the workload or because the importance of environmental issues was not recognised. About 42 nations chose to establish specialised tribunals in 2009, according to estimates, in order to better enforce

national environmental laws . While reviewing environmental courts in New Zealand and drawing on the rules of the Court in New South Wales, Australia, the decision to establish a specialised environmental court in India was made. 2009 saw the introduction of the National Green Tribunal Bill into the Lok Sabha, where it was the subject of a lengthy discussion. It garnered a number of criticisms, the most of which centred on the bill's narrow emphasis and promotional character. As a result, Parliament passed the National Green Tribunal Act in line with Article 253 of the Constitution in an effort to be in compliance with and fulfil its duties towards the Stockholm Declaration, 1972, of which India was a member.

THE NATIONAL GREEN TRIBUNAL

The goal of the NGT's founding was to provide quick and effective resolution of disputes involving environmental preservation. One benefit of the National Green Tribunal is that there is a relatively straightforward process for starting a lawsuit for compensation for environmental harm or for appealing a government decision.

Additionally, the Tribunal is not required to operate in accordance with the rules established by the Code of Civil Procedure; instead, it is governed by the concepts of natural justice. The Indian Evidence Act, 1972's rules of evidence are also not relevant to the Tribunal. This makes it easier for environmental advocacy groups to contact the Tribunal and give the pertinent evidence, as well as for the parties to criticise the defects and any negative effects a project could have on the environment. As a result, the NGT has more freedom to carry out its duties and issue remedies to the party in question.

According to the law, the Tribunal must decide on an application within six months after the applicant's filing date. The Precautionary Principle and the Polluter Pays Principle are two internationally accepted standards that the Tribunal must abide by while deciding disputes. It is the first organisation of its kind whose parent legislation requires it to follow the polluter pays concept. One of the Act's most distinctive features is Section 20. It requires the Tribunal to use the sustainable development principle while making any decisions.

A significant corpus of environmental jurisprudence has been developed with the help of the judiciary. Despite this, one of the weakest areas is still seen to be policy enforcement. The National Green Tribunal's main goal is to devote itself exclusively to the cause of protecting the environment and to utilise all of the legal authority that has been granted to it to lessen environmental harm, give redress, and compensate those who have been harmed. The National Green Tribunal was established in order to assist in bolstering the enforcement of environmental legislation in India because the country's policy enforcement has historically been inadequate.

The NGT has been established as a statutory panel of independent experts from a wide range of subjects. By looking beyond the cost-profit viewpoint of a project, the

engagement of specialists from other fields advances the goals of environmental conservation and development. Any administrative activity that violates environmental legislation has been granted the authority to be prohibited and ruled invalid by the tribunal.

All civil disputes involving environmental issues and inquiries about the laws listed in Schedule 1 of the National Green Tribunal Act may be heard by the National Green Tribunal. The Act grants the Tribunal the authority to decide disputes in which an important environmental issue is challenged. Strict precautions have been put in place to prevent non-compliance with the tribunal's order or the law. This will guarantee that the Tribunal's order is carried out. One may describe the NGT as a quasi-judicial body. It differs from a typical court. By using a flexible approach to conflict resolution, specialised environment courts and tribunals are better able to provide creative solutions and complete remedies to environmental concerns.

IMPORTANT ORDERS ISSUED BY THE TRIBUNAL

Since the NGT's founding, the number of judgments it issues each year has increased. In 2015, a total of 821 orders were placed, as opposed to a total of 28 orders delivered in 2011. This is a sign of the growing environmental worries in a developing country like India. The NGT is renowned for making decisions quickly. It has issued directives to several authorities, such as those prohibiting noise pollution in Delhi, protecting wildlife in Assam, and conserving biodiversity in the Western Ghats.

For Delhi's residents, the decision to deregister diesel vehicles after 10 years was a success since it opened the door to the potential of significantly decreasing pollution. As part of its authority, the National Green Tribunal has suspended the fines against a number of projects. When a few nearby communities objected to the project in line with the Forest Rights Act of 2006, the NGT asked the Ministry of Environment to evaluate the approvals and reassess them in the POSCO case.

Both large firms and the government have received harsh criticism for not abiding by the pertinent environmental legislation. The Tribunal in *Adivasi Majdoor Kisan Ekta Sangathan v. Ministry of Environment and Forests* noted that the public hearing held in the case of approving the Jindal Steel and Power's Mining Project's environmental clearance was in flagrant violation of the principles of natural justice and was therefore declared invalid. 16 Any agency that implements an order issued by the NGT must be held accountable. To determine whether the Agency has followed the NGT's directions or not, the order should be carried out completely.

The National Green Tribunal has the authority to take *Suo moto* cognizance of environmental issues and has done so in the past. In the case of *NGT v. State of HP and Ors.*, the NGT noted that the state of Himachal Pradesh's ever-increasing motor traffic was contributing to the destruction of the natural environment. A programme for scientific forestation to preserve the ecosystem was

launched after directives from the tribunal. In addition, the Court ordered the government to charge car owners a fee, which would be deposited in the Green Tax Fund and used to undertake rehabilitation programmes.

Up to 2014, environmental impact evaluations were a factor in around 35% of cases that were presented before the Tribunal. Many of these claims were brought against the state on the grounds that environmental clearances had not been granted with the proper care. Any EIA report that included a possible project had to be made public and publicised in the neighbourhood media. Any public concerns must be noted and forwarded to the expert assessment panels. Even the Supreme Court began evaluating its own caseload when the National Green Tribunal was established. In an unexpected decision, the Supreme Court assigned all environmental matters to the Tribunal in the case of *Bhopal Gas Peedith Mahila Udyog Sangathan and Ors. V. Union of India* with the intention of expediting and effectively resolving these cases. The Court spelled out in very explicit terms that any matters brought after the NGT Act's implementation and falling under its key provisions would be transferred to the Tribunal and could only be brought there. The Supreme Court moved more than 300 cases to the Tribunal in the past year.

The Tribunal cancelled the environmental clearance given to Chennai's Municipal Solid Waste processing facility in *N. Chalamuthu v. District Collector* because the EIA reports contained inaccurate information. In a different case, *Hussain Saleh Mahmad Uman Bhai Kara v. Gujarat State Level EIA Authority and others*, the NGT revoked the clearance granted to Scania Steel and Power Ltd for failing to follow the rules of procedure, such as having the public hearing.

The NGT has approved various projects, demonstrating that it is not opposed to economic progress. The Tribunal overturned the decision of the relevant government to shut down the 250000-tonne facility of Sterlite Copper in the case of *Vedanta Ltd.* The Tribunal further instructed a subsidiary of Vedanta to spend Rs 100 crore on the welfare of local residents in order to guarantee that environmental protection measures are carried out. The court ordered the Tamil Nadu Pollution Control Board to approve the smelter's opening within the allotted time frame. The decision included other preventative requirements that the plant had to adhere to, including creating a website for the reporting and resolution of complaints from nearby stakeholders and updating the report on ground water quality on the corporate website.

THE NATIONAL GREEN TRIBUNAL'S LIMITATIONS

The National Green Tribunal serves as India's main regulatory body for environmental protection and preservation. According to the Finance Act of 2017, the government is free to select the requirements and circumstances for the nomination of the NGT board members. However, there have been several issues that have raised questions about the NGT's reliability. Due to

the fact that the government has the authority to nominate NGT board members, it is not required that they be judges of the Supreme Court or even of the High Court. This has led to concerns about the qualifications and trustworthiness of the chosen NGT board members.

Regarding the Tribunal, there is no provision for public interest litigation. The practice of PIL has been crucial in the advancement of Indian environmental law. This is one of the issues affecting the NGT's jurisdictional boundary that has to be addressed. The Bombay High Court asked the tribunal to clarify the meaning of "aggrieved person" in the case of *Cavelossim Villagers Forum v. Shree Balaji Concepts and Others*. It also asked the tribunal to consider whether it could accept an application that falls under the purview of public interest litigation.

It is necessary to resolve the question of whether the High Court may consider Tribunal appeals under Articles 226 and 227. This point has to be clarified since the Madras High Court ruled that the High Court has the authority to consider challenges against NGT rulings.

The deadline for submitting an application is one of the Tribunal's main restrictions. Within six months after the date the cause of action arose, applications must be submitted to the Tribunal. With a five-year application deadline, the rule regarding applications for grants of compensation or relief still allows for some leeway.

CONCLUSION

According to the NGT's own history, the new Tribunal's establishment was not an order placed on the judiciary. In actuality, the Supreme Court itself made the suggestion. This would imply that the current functioning judiciary would not forbid the reform and that the new judges would integrate with other authorities without engaging in any significant conflicts. With regard to the Tribunal, the Supreme Court exercises oversight to make sure that judges who support the environment do not contradict other judges or constitutionally mandated principles. It is true that the NGT does not address every environmental issue, but it will undoubtedly pave the path for the development of creative solutions to the environmental issues that affect both the country's citizens and environmental activists. The NGT has issued directives in a number of areas, including the management of trash and the conservation of biodiversity. It is uncertain if will uphold its mandate going forward. Instead of just imposing a price on environmental damage, rigorous enforcement methods are now required. For the environment to be effectively restored, the NGT must keep this in perspective.

REFERENCES

1. Agarwal, S. K. (2011). Establishment of National Green Tribunal in India: End of Road for Public Interest Litigation. Available at SSRN 1878446.

2. Amirante, D. (2011). Environmental courts in comparative perspective: Preliminary reflections on the National Green Tribunal of India. *Pace Env'tl. L. Rev.*, 29, 441.

3. Bhushan, C., Banerjee, S., & Bezbaroa, I. (2018). *Green Tribunal, Green Approach: The Need for Better Implementation of the Polluter Pays Principle*. New Delhi: Centre for Science and Environment.

4. Brara, R. (2018). *Courting resilience: The national green tribunal, India (No. 2018-4)*. UNRISD Working Paper.

5. Jannu, N. (2016). India's National Green Tribunal: Human Rights and the Merits of an Environmental Court. *Env'tl. L. Rep. News & Analysis*, 46, 10474.

6. Khandare, J. (2015). Role of national green tribunal in protection environment. *Indian Journal of Research*, 4(12).

7. Patra, S. K., & Krishna, V. V. (2015). National Green Tribunal and environmental justice in India.

8. Rengarajan, S., Palaniyappan, D., Ramachandran, P., & Ramachandran, R. (2018). National Green Tribunal of India—an observation from environmental judgements. *Environmental Science and Pollution Research*, 25(12), 11313-11318.

9. Rosencranz, A., & Sahu, G. (2014). Assessing the National Green Tribunal after four years. *J. Indian L. & Soc'y*, 5, 191.

10. Ruchi Singh, R. S., & Amit Kumar, A. K. (2019). Air pollution control: policies and legislations. In *Air pollution: sources, impacts and controls* (pp. 198-215). Wallingford UK: CAB International.

11. Shinde, M. The Polluter Pays Principle in Effect at

the National Green Tribunal in India.

12. Shrotria, S. (2015). Environmental justice: is the National Green Tribunal of India effective? *Environmental Law Review*, 17(3), 169-188.

13. Tandon, U. (2020). Green Justice and the Application of Polluter-Pays Principle: A Study of India's National Green Tribunal. *OIDA International Journal of Sustainable Development*, 13(01), 35-46.

1. Alshameri, F. A. (2013). *A Thesis submitted in fulfilment of the requirement for the Award of the Degree of Doctor of Philosophy in Medical-Surgical Nursing By* (Doctoral dissertation, University of Khartoum).

2. 1996 AIR 1446

3. Nain Gill, G. (2010). A green tribunal for India. *Journal of environmental law*, 22(3), 461-474.

4. Section 21 of the NGT Act

5. M.A. No. 36 of 2011

6. (2012) 8 SCC 326

7. Appeal No. 10 of 2011

8. Role of National Green Tribunal in the Prevention and Control of Environment Pollution

9. Dominico Amirante, Environmental Courts in Comparative Perspective: Preliminary Reflection on the National Green Tribunal of India



GENDER SENSITIZATION AND EDUCATION

DR. DINESH KUMAR GUPTA

ASSISTANT PROFESSOR, AGRAWAL MAHILA TEACHER'S TRAINING COLLEGE,
GANGAPUR CITY, DIST- SAWAI MADHOPUR (RAJASTHAN) 322201.

ABSTRACT:

Gender is a social and cultural construct, which includes the expectations held about the characteristics, aptitudes and likely behaviours of both women and men, and accordingly refers to the roles and responsibilities of men and women. Gender-based roles and other attributes, therefore, change over time and vary with different cultural contexts. This concept is also useful in analyzing how commonly shared practices legitimize discrepancies between sexes. Gender sensitivity encompasses the ability to acknowledge and highlight existing gender differences, issues and inequalities, and incorporate these into strategies and actions. Gender sensitivity is not about pitting women against men. On the contrary, education that is gender sensitive benefits members of both sexes. It helps them determine which assumptions in matters of gender are valid and which are stereotyped generalizations. Gender awareness requires not only intellectual understanding and effort but also sensitivity and open-mindedness to change one's views and limited perspectives and values. It opens up the widest possible range of life options for both women and men and builds their capacities to be more wholesome and humane. In this regard, teachers are strategically positioned to act as agents of change in order to achieve gender equality, especially through what they teach, how they teach and how they role model their own attitudes, beliefs and practices in the classroom and beyond. Indeed, teachers do not come into classrooms as gender-neutral persons. They are likely to have internalized a patriarchal gender ideology through their upbringing and years of socialization in both formal and informal settings. The influence of teachers and educators on gender roles of their students immensely impacts their educational outcomes as well as their roles in contemporary society.

KEYWORDS:

GENDER, SENSITIZATION, EQUALITY, EDUCATION.

INTRODUCTION:

Gender sensitivity is not about pitting women against men. On the contrary, education that is gender sensitive benefits members of both sexes. It helps them determine which assumptions in matters of gender are valid and which are stereotyped generalizations. Gender awareness requires not only intellectual understanding and effort but also sensitivity and open-mindedness to change one's views and limited perspectives and values. It opens up the widest possible range of life options for both women and men and builds their capacities to be more wholesome and humane. The concern for gender in and through education, especially in classroom spaces, is critical because of the negative and far-reaching implications that gender disparities and inequities (reflected through biases, stereotypes and discriminatory practices) have for educational institutions. Education is a major force that will help trigger change but this will occur only when teachers and learners are assisted in adopting classroom initiatives that reflect new images based on a positive gender equity ideology. Gender equality as a strategy has great potential to create desired change because it has the capacity to address both the practical and strategic needs of boys and girls, of nations and the world at large. In this regard, teachers are strategically positioned to act as agents of change in order to achieve gender equality, especially through what they teach, how they teach and

How they role model their own attitudes, beliefs and practices in the classroom and beyond. Indeed, teachers do not come into classrooms as gender-neutral persons. They are likely to have internalized a patriarchal gender ideology through their upbringing and years of socialization in both formal and informal settings. Teachers' patriarchal word views impact on the hidden curriculum that is often as influential in classroom as the official curriculum. Frequently it is the hidden curriculum which ensures that gender differentiated practices, procedures and processes occur in classroom spaces and school structures where gender-friendly policies and curricula already exist.

KEY ISSUES RELATED TO WOMEN EDUCATION IN INDIA:

Even after the 67 years of independence, women education has not achieved the desired results despite of many inputs to promote and facilitate the process of sharing knowledge at distance level whose reasons are:

- An ample section of Indian society does not give prominence to girl education of their restricted mindset, conservative norms and poor mentality.
- Guardians do not take interest in making a girl child literate due to their undeveloped level of

mentality towards education.

- Girls are not allowed to make up decisions for them and step out from their homes because of social discrimination and male-dominated society.
- Girls are not sent to schools because of social immoralities, child-marriages and dowry and veil customs.
- Some girls are not able to make up for schools as they contribute in agriculture and house chores, so they don't get admitted in schools.
- A middle class man is not able to afford education as it is getting costlier day by day. Despite of numerous facilities provided by the government, he prefers boy education rather than the girl education.
- Most of the India's population reside at rural regions. The guardians are not interested in sending their girl child to school because of shortage of basic installations such as non-availability of hygienic water, no arrangement for separate sanitary facility for girls in schools.
- Parents are hesitated in sending their girl child to co-education institutions and geographical distance from their home or village also plays a significant role in making them deprived of education.
- Curriculum which is being taught in the schools is theoretical and defective. It emphasis on theoretical knowledge instead of practical knowledge. Parents and girl child also does not get aspired from education because of its non-employment orientation.
- Girls give away education because of earthbound teaching methods and begin participating in household tasks. As a result, they get married soon and because of marital responsibilities, their dream of being literate is not fulfilled.

NEED FOR GENDER SENSITIZATION:

Gender sensitization is first instance, tends to change the perception that men and women have of each other. It creates a mindset in men that no longer sees in women the stereotypical image. The impression that women are a weak and unequal entity no more clouds the minds of common man. Rather they are seen as responsible and equal partners in socio-economic development. The general perception of men and women on the rigid gender division of labour and other orthodox practices related to gender begin to die down. Women also tend to develop the perception that they are no subordinate to men and they have an equally important role to play in decision making at household, community and organization level.

The main problem of Indian society is lack of women recognition and appreciation for women's involvement in multifarious activities. The men, who are reluctant to acknowledge women's contribution, come forward under

the influence of sensitization to recognize their contribution. The gender sensitization process develops understanding that women do possess wisdom and therefore they must be involved in decision making process. They have concerns and therefore should be treated with dignity and equal chance in sharing of social and economic benefits. Women cutting across, socio-economic boundaries tend to see their problems in larger perspectives of women development and come forward to recognize the efforts of fellow women. They even visualize the important role that men can play in their socio-economic development. Such an orientation marks the beginning of a definite realignment in gender relations. Social image of women improves and their concern are shared by men.

GENDER SENSITIZATION STRATEGY:

Forms and intensity of gender bias varies greatly according to the socio-cultural and economic contexts. Therefore in order to bring desired change in people and in the society, we need to develop a well thought out gender sensitization strategy considering the prevailing socio-cultural economic and psychological situation of target group. The strategy basically involves three components selecting the target audience, deciding the content and deciding the methodology. Since the content and methodology of the program are decided according to the target group before designing the sensitization program.

PEDAGOGIC STRATEGIES TO PROMOTE GENDER SENSITIZATION THROUGH EDUCATION:

1. PARTICIPTION

Most feminist educators understand that knowledge is not neutral, that teacher and students alike bring 'texts' of their own to the classroom which shape the transaction within it. Feminist pedagogy emphasizes participatory learning and teaching, within which subjectivity, emotions and experience have a definite and valued place. While participation is a powerful strategy, its pedagogic edge is blunted when it is ritualized. Participation, when seen as an instrument to achieve certain specified, predetermined objectives and where the teacher's own ideas dominate classroom discussion is not meaningful, It involves appreciation of importance of starting from experience of both students and teachers.

2. RECOGNISING DIFFERENCE

Implicit in any effort at facilitating real participation is to work with the principle of recognizing difference. As children share reflect on their individual and collective experiences they simultaneously acknowledge and relate these to the experiences of others who may not form a part of their social reality. It is important that this difference not be marked by status but by diversity. Pedagogies that provide space for individual children to express themselves freely in the classroom, without fear of judgment and stereotyping are essential building blocks in working towards a future where they can have more

critical engagements with what is being taught in the middle and higher classes.

3. READING AGAINST THE GRAIN

However it is possible and also necessary to be able to equip students to “read against the grain”, to critically question received knowledge, whether it is biased text book or other literary sources in their own environment. Undoubtedly this is an objective that education would aspire for in the higher school. Yet there is need to build in approaches that encourage learners to comment compare and think about elements that exist in their own environment. Women educators have used songs as a powerful medium for discussion, comment and analysis in culture that are primarily oral. As repositories of knowledge exist in different medium, all these forms whether television, advertisements, songs, paintings etc. need to be brought in to create a dynamic interaction between learners themselves. Lateral learning processes necessitate new equations between the teacher and the student.

4. ACKNOWLEDGING POWER

A gender sensitive pedagogy is one that does not merely affirm different individual and collective experiences but it located these with in larger structures of power. Question such as who is allowed to speak for whom? Whose knowledge is most valued? Inform engagements with learners. A Bachelor of Elementary Education teacher reflected on her course that the ‘gender and schooling’ paper has made her conscious of these realities. She said that she may not able to change everything but she will try and make difference where she can within the classroom. This translates into evolving different strategies for different learners. For e.g. encouraging a child to speak in class may be important for some children and learning to listen to others may be of priority for others.

5. THE TEACHER AS A FACILITATOR

The teacher’s role is to provide a safe space for children to express themselves and simultaneously to build in certain forms of interaction. While consolidating and constructively pushing the limits of learner’s understanding, s/he needs to be conscious of how differences are expressed. An atmosphere of trust would make the classroom a safe space where children can share experiences, where conflict can be acknowledged and constructively questioned, where resolutions, however tentative, can be mutually worked out. A space where they can practice democratic ways of interacting with each other and build skills to negotiate with conflicts outside the school. For girls in particular, school and classrooms should be spaces to discuss processes of decision making, to interrogate the basis of their decisions and to make informed choices. The construction of the female as passive may act against her within participatory teaching and learning contexts. In our schools where gender based construction underpin ideas of classroom discipline and strict divisions are maintained between girls and boys, a girl who is interactive is likely to be pulled up

for transgressing the ‘gender code’. Clearly, there needs to be a rethinking of the agency of the learner in the classroom context. This reconceptualization has to become an organic part of the ways we think of education today and find a prominent role in teacher training programs.

CONCLUSION:

Education is the most effectual instrument to improve the status of women in any culture. If she is educated, she can educate the whole family. An educated woman helps the family to get rid of poverty making participation in income-generating activities. Low level of literacy not only has a negative impact on women’s lives but also on their families and nation’s social and economic development. At equal intervals of time, women education in India has been in the news and brought up to a qualitative form associated with committees as per the updates but poor implementations have lately made it restricted to official papers. Indian Government provides incentives for girls to get education in terms of free books and uniforms, low fee structure and mid day meals. Though, women education made a remarkable progress in the nation till date, but there is a strong need to restructure and making collective efforts, strong official actions, proper implementations and social initiatives programs with public-private partnership to strengthen the women education. We hope, we will achieve the target soon because a series of efforts are still going on.

REFERENCES

1. Barodia Shailly. 2015. Gender Sensitization and Education. IJIMS, Vol. 02 (4) : 107-113.
2. Chanana Karuna. 1996. Gender Inequality in primary schooling in India : The Human Rights perspective. Journal of Educational planning and Administration, 10 (4) : 361-81.
3. Deswal Anita, Sahni Madhu. 2015. Women Education in India : An overview. University News, 53 (13) : 10
4. Mishra Poonam, Joshi. Manju. 2016. Barriers to Gender Equality. Biyani International seminar on Role of Gender in promoting Quality Education, Biyani Girls B.Ed. College, Jaipur. March 01-02, 2016. 88-90.
5. National Council of Educational Research and Training. 2005. National Curriculum framework, New Delhi, India.

6. National Council of Educational Research and Training. 2006. Gender Issues in Education, New Delhi, India.

7. Prasad Lalta, Gautam Amit. 2015. Role of Education in Empowerment of women. University news, 53 (14)

: 12-15.

8. Taruna, Meenu. 2016. Gender Sensitivity : Reorienting the Role of Teachers. National seminar on Education and Gender Sensitivity, Kanoria B.Ed. College, Jhunjhunu (Raj.) Oct. 16-17, 2016



GREEN BONDS IN INDIA: PROGRESS AND CHALLENGES

JYOTI MALIK

PHD SCHOLAR, DEPARTMENT OF FINANCIAL ADMINISTRATION, CENTRAL UNIVERSITY OF PUNJAB, BHATINDA, PUNJAB 151001, INDIA.

DR. HAREESH KUMAR T

ASSISTANT PROFESSOR, DEPARTMENT OF FINANCIAL ADMINISTRATION, CENTRAL UNIVERSITY OF PUNJAB, BHATINDA, PUNJAB 151001, INDIA.

ABSTRACT:

Sustainability is an emerging trend and a crucial corporate goal that fuels green business innovation in the current environment. The businesses focus on implementing a green corporate strategy to address environmental challenges. Green bonds are a new and emerging sector of finance that fits nicely under the category of green finance. Green finance is an innovative, cutting-edge financial strategy that financial institutions have embraced that combines environmental conservation and prosperity. Bonds that have been issued by governments, corporations, and other organizations to use the bond proceeds for environmentally friendly initiatives are known as "green bonds." The study examined the progress achieved by the Indian green bond market from the financial year 2017 to 2021 and explored the challenges hampering the growth of the green bond market in India. The study design used is descriptive, and the data is collected through secondary sources: journals, websites, reports, and other published sources. The study concludes that there is no continuous growth in the Indian Green bond market; there are fluctuations. Energy-related projects receive the majority of the proceeds from green bonds. Government-backed entities are not showing much interest in this area. There are many other challenges for the Indian green bond market, like high issue costs, lack of infrastructure, small market size, lack of investor and issuer awareness, and green-washing practices. Therefore, the government and all statutory bodies must encourage efforts to address these issues.

KEYWORDS:

GREEN BONDS, GREEN BOND MARKET, SUSTAINABILITY, ENERGY PROJECTS, GREEN FINANCE, GREEN BOND PRINCIPLES.

1. INTRODUCTION

Among the biggest problems facing humanity today are climate change and environmental degradation. A significant step in combating climate change was taken with the adoption of the Paris Agreement on Climate Change by 196 nations (Bansal et al., 2022). As per this Agreement, India has agreed to increase investment in low-carbon industries and reduce greenhouse gas emissions by 33% to 35% by 2030 from 2005. According to Bansal et al., (2022), "Low-carbon, green economic growth is essential for India to meet its financial and emissions targets. Green economic growth is required to simultaneously increase human welfare and prevent the harmful effects of climate change and environmental degradation." However, a significant barrier is the start-up expenditures of green projects.

The fixed-income financial instruments known as "green bonds" are associated with advocating and implementing climate change and environmental solutions. With the help of this instrument, the green bond issuer can raise money to fund environmentally friendly projects, and the investors can earn a fixed income in the form of interest. The principal is reimbursed when the bond reaches maturity. Green bonds provide income to pay for the green work upfront, like company bonds. They are a subset of corporate bonds. Green bonds have been an increasingly vital tool to raise climate finance since their inaugural

issuance in 2007 by two multilateral development banks—the World Bank and European Investment Bank—with total issuances estimated to be over \$180 billion globally by the end of 2016. (Mathur, Sharma, Wali, & Priyanka, 2020)

India entered the green bond market in 2015 when the YES Bank released the nation's first green bond to fund sustainable energy projects, notably those involving wind and solar energy (Agarwal et al., 2018). The market for green bonds has gradually grown to include several public sector organizations, state-owned corporate banks, state-owned financial institutions, corporations, and the banking industry. Regarding the overall amount of green bonds issued in 2021, India has risen to the sixth-largest position in the Asia-Pacific region. India's issuance of green bonds increased by 523% from the previous year to \$6.8 billion during the years (Sihag, 2022). Indian organizations have issued green bonds worth more than \$18 billion, according to Climate Bonds Initiative, a global organization aiming to mobilize funds for climate action. Bonds with a green premium offer a yield discount of 10–20 basis points, making them appealing. A voluntary capital market project called "green bonds" aims to direct funding to combat the future issue of climate change.

Green bonds have much-unrealized potential in industries

other than renewable energy. Public interventions are required to make the more unusual investment areas, such as water, agriculture, forestry and marine conservation, waste, and land, appealing and financially viable for private investments. The financial industry is playing a crucial role in advancing novel models globally and driving the green bond market, including the public sector and development banks (Mathur, Sharma, Wali, & Priyanka, 2020).

The present study focuses on the overall achievement made by the Indian green bond market from 2017 to 2021 in different types of entities. The Indian green bond market is dealing with a slew of issues. This paper also focuses on the issues.

1.1 TYPES OF GREEN BONDS IN INDIA

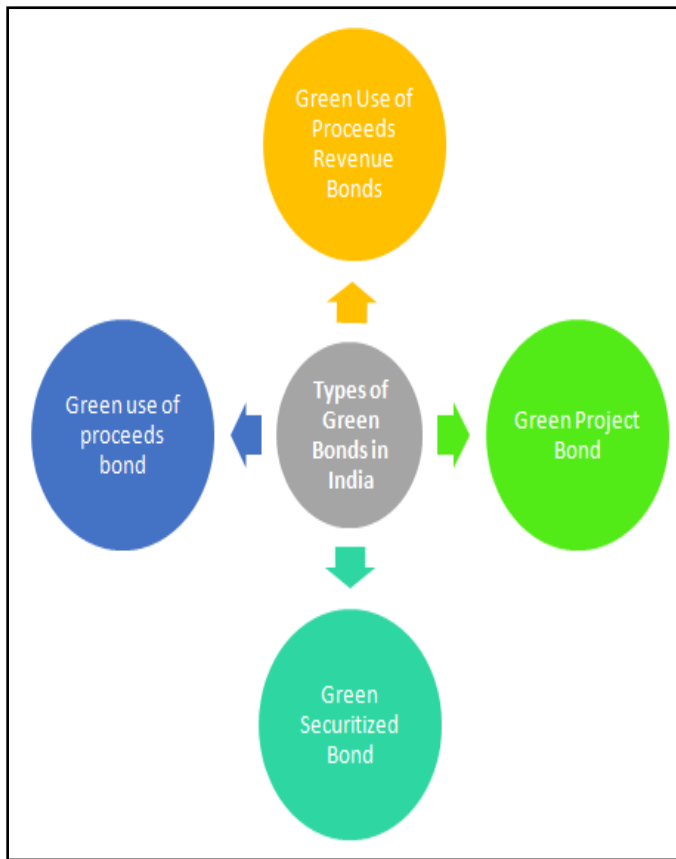


FIGURE I: TYPES OF GREEN BONDS IN INDIA

Source: (Climate bond Initiative, 2022)

The types of green bonds are as follows (Climate bond Initiative, 2022):

- a. **Green use of proceeds bond-** According to the Climate Bond Initiative 2022 report, "It is a typical recourse debt obligation, with the proceeds going to the account to be put to use on the project. The issuer must tell the investor the appropriate use of any pending investor proceeds if there are any".
- b. **Green Use of Proceeds Revenue Bonds-** The proceeds from this non-recourse debt obligation bond may be used for associated or independent

green projects. Once more, the project account will be credited with the earnings. The issuer must also disclose how it plans to use any remaining funds from the designated sum.

- c. **Green Project Bond** – Regardless of related debt obligations, the earnings will be used for many green initiatives, putting the investment at risk.
- d. **Green Securitized Bond-** In this type of bond, one or more projects serve as collateral, while the income earned from these projects is used to repay the debt.

1.2 GREEN BONDS PRINCIPLES

The Green Bond Principles (GBP) promote integrity in the growth of the Green Bond market by outlining the process of issuing a Green Bond and recommending transparency and disclosure (ICMA, 2022).



FIGURE II: GREEN BONDS PRINCIPLES

Source: (International Capital Market Association, 2022)

The green bond principles are as follows (International Capital Market Association, 2022):

- a. **Use of Proceeds:** This details the projects to be funded with the yield from the green bond fund and indicates how those funds will be used.
- b. **Process of project evaluation and selection:** This involves evaluating the project from the standpoint of its influence on society and environmentally friendly goals.
- c. **Management of Proceeds:** In this step, the project's funds are sent to the reserve set aside for that project so that the money used can be tracked. If the funds are not

entirely utilized, they should be placed on a temporary usage of unutilized funds.

d. Reporting: At last, reporting is the procedure where the issuer must provide all pertinent information about the project, including the status of the project, usage of unused money, allocation of cash, and information that investors may need. Therefore, complete information disclosure should be made available through yearly reports.

e. External Review: External Review is a fifth element incorporated into the abovementioned four elements. The auditor, independent of the organization, conducts a thorough evaluation as part of the external review process. The project's working and supporting documentation are fully verified by the external auditor, who also issues a certificate to the issuer.

2. LITERATURE REVIEW

Bansal et al. (2022) examined the factors that act as hurdles in the Indian green bond market growth. Apart from that, he provided some suggestions for removing such hurdles. He used the best-worst method (BMW) to classify the hurdles and the plans that were based on the preferences given by different managers. According to the findings, the most significant obstacles facing the Indian green bond market are a lack of legislative backing and a defined risk assessment system, followed by a lack of interest in investors in green bonds and market expertise. Standardization stood out among the tactics as the best for promoting green bonds in developing nations.

In their paper, Kumar et al. (2022) examine the potential and difficulties associated with the various green finance efforts adopted by Indian financial organizations. The paper also emphasizes India's advancements and prospects for green financing.

Prakash et al. (2021) studied the financing gap for "green" projects in India connected to SDG goals relating to the environment examined in the article. It advances the case for using green bonds to close the gap. After demonstrating how green bonds might be used to raise funds for India's SDG targets connected to the earth, we examine the present political climate and offer suggestions for effective implementation.

Verma et al. (2020) discussed the state of Green Bonds in India. The study also emphasized the potential of green bonds in the future. At last, it included suggestions applicable to the Indian perspective, like encouragement by the government for the private sector, tax benefits to the investors, and credit rating of green bonds.

Zala et al. (2020) concentrated on how announcements made from 2015 to 2019 may affect green bonds issued by both Indian public and non-public firms.

Based on certification, the study divided the green bonds into categories. The results revealed that the event window had positive abnormal yields for 80 percent on average of the collection of green-certified bonds. The study showed that the financial market responded favourably towards announcements of certified green

bonds and negatively to those of a select few non-certified issuers.

Rachello(2019) examined the qualities, purpose, and reach of green bonds and offered a market analysis, paying particular attention to the market's stage of development in a few selected developing market economies.

In their study, Jha B. et al. (2019) focused on investigating the numerous green finance actions made by Indian banks and organizations from the public and private sectors. The paper outlines the many issues that India has when it comes to green funding and suggests solutions.

Mihálovits et al. (2018) explained the success of green bonds in India and their contrast with traditional bonds. The study showed that many variables, including price, risk, underwriters, and influence green bonds' success. It also discusses how certifications, stock exchanges, and standards can improve the issuance process. The study concludes that India has enormous opportunities for expansion in this slowly developing sector.

Agarwal et al. (2018) aimed to comprehend India's expanding "green" bond market. It detailed specific prospects for supporting the growth and diversification of Indian green bonds based on outstanding global achievements and industry standards. It also provided a summary of the changes in this category, which are driven by regulations and the market.

Panda (2017), with the aid of recent statistics, seeks to describe the origins of Green Bonds, their origination, and their current trajectory. A particular type of investor is drawn to green bonds, which benefit issuers and the economy. 2008 saw the World Bank offer this novel financial product in response to investor demand. This instrument is currently becoming more and more well-known all over the world. Numerous institutions are producing this instrument after the World Bank.

3. RESEARCH OBJECTIVES

The aim of an objective in research helps describe the goal of the area under consideration. India's first time, green bonds were issued in 2015 by the Yes Bank with INR 1000cr (Verma et al., 2018), so one of the objectives is to assess the growth of Indian green bonds from 2017 to 2021. The final objective is to demonstrate the challenges in the Indian green bond market. Consequently, this study's two main goals are as follows:

- To access the growth of Indian green bonds from 2017 to 2021.
- To examine the challenges in the Indian green bond market.

4. RESEARCH METHODOLOGY

Due to the shortage of time and money, all the data is collected through secondary sources like websites, journals, and various other published sources. The study is entirely descriptive.

5. DISCUSSION

VALUE OF GREEN BONDS IN INDIA FROM THE FINANCIAL YEAR 2017 TO 2021 BY ISSUER TYPE

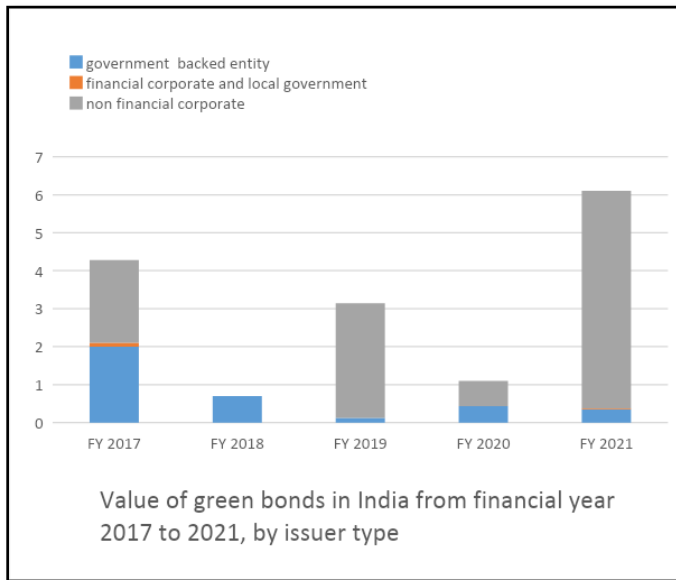


FIGURE III: VALUE OF GREEN BONDS IN INDIA FROM THE FINANCIAL YEAR 2017 TO 2021 BY ISSUER TYPE

Source: www.statista.com (as on August 30, 2022)

Figure III shows that there has been tremendous growth in the issuance of green bonds in India from the financial year 2017 to the financial year 2021. There was a decline in the issue of green bonds in the 2018 financial year by all the issuers. In the fiscal year 2017, the amount was 2 US billion dollars, but it stood at 0.7 US billion in 2018. The corporate financial sector saw a considerable decline in the issue of green bonds in 2018.

In the financial year 2019, there was a considerable increase in the amount issued by the non-financial corporate sector. There was no growth on the part of government-backed entities, financial corporations, or local governments.

In the financial year 2020, again, there was a decline in the issue from the non-financial corporate sector. It stood at 0.67 billion US dollars, down from 3.02 billion dollars that year, and there was growth in the amount issued by government-backed entities. It was 0.12 billion dollars in FY 2019, but it became 0.43 billion in FY 2020. The value of green bonds in the financial, corporate, and local government sectors was zero.

In the financial year 2021, there was an immense growth in the issue of non-financial corporate sector green bonds from 0.67 US billion to 5.73 US billion. However, there was a decline in government-backed entities from 0.43 US billion to 0.35 US billion. In the financial, corporate, and local government sectors, there was an increment of only 0.02 US billion dollars.

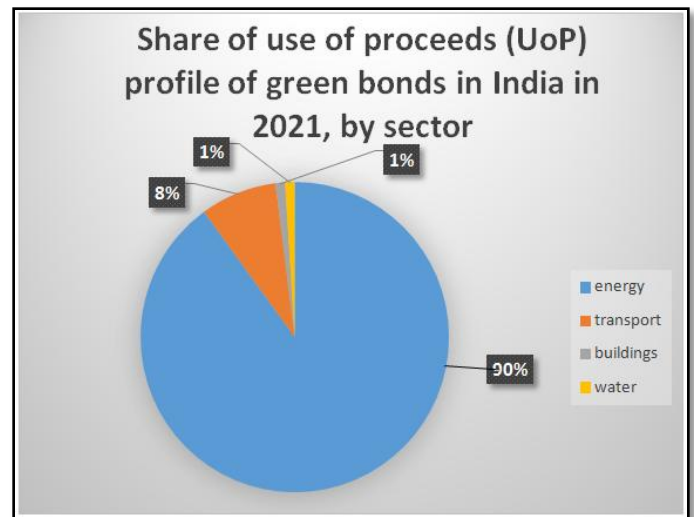


FIGURE IV: SHARE OF USE OF PROCEEDS (UOP) PROFILE OF GREEN BONDS IN INDIA IN 2021 BY SECTOR

Source: www.statista.com (as on August 30, 2022)

The figure mentions that 90% of proceeds from green bonds are used for the energy sector, 8% for the transport sector, 1% for the water sector, and 1% for buildings. From the above figure, it is clear that the proceeds from green bonds are mainly used for energy projects, but there is a need to promote the use of proceeds for other sectors like energy, transport, building, and water.

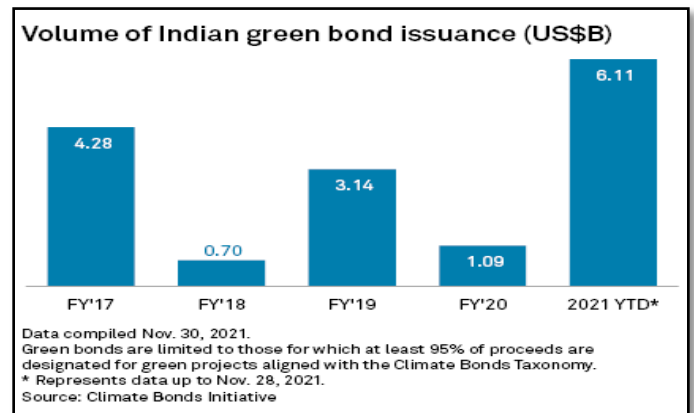


FIGURE V: VOLUME OF INDIAN GREEN BOND ISSUANCE IN US\$B

Source: www.climatebonds.net (as of 2022)

From the above figure, it is clear that the volume of green bond issuance in India has decreased from 4.28 US billion dollars to 0.70 US billion dollars in the financial year 2018. However, in the financial year 2019, there was a good increase in the issuance of green bonds from 0.70 US billion dollars to 3.14 US billion dollars. Again in the financial year 2020, there is a decline from 3.14 US billion dollars to 1.09 US billion dollars. And in the year 2021 there was a significant increase in the issue from 1.09 US billion to 6.11 US billion dollars. So we can say that there are substantial fluctuations in green bond issuance from the year 2017 to 2021.

6. CHALLENGES

a. Issuing costs: In India, the cost of green bond issuance has consistently stayed more expensive than other bonds. Compared to corporate and government bonds with comparable maturities, the average coupon rate for green bonds appears to be higher. Similar patterns are seen in green bonds issued in Indian Rupees. It is to be stated that the bulk of green bonds in India are issued by corporations or public sector organizations in excellent financial standing.

b. Market Infrastructure Development: There are still many untapped prospects because the domestic market is so enormous, and green instruments have only recently begun to penetrate it. Some studies in this context highlighted the importance of (a) more robust investment and environmental policy synchronization and (b) suitable legislation to overcome the existing tensions. Consequently, various legislative plans, such as enlarging the corporate bond market, normalizing the terminology that defines green financing, and ensuring continuity in corporate reporting, can undoubtedly assist in tackling a few shortcomings in the green bond market.

c. Market size small: Small bond sizes result in liquidity problems because of the market's small size. Lack of standards and judicial regulations increase the risk to one's reputation and the difficulty of keeping one's environmental integrity.

d. Regulatory mechanisms: The demand for green bonds is being impacted by the unreliable and inadequate regulatory framework, which also affects investments in the renewable energy sector.

e. Lack of knowledge: Another obstacle that exists in the Indian green bond market is a lack of knowledge among investors about new types of green bonds and issuers also lack the ability to issue green bonds and the usage of its proceeds.

f. Preference only to the energy sector: Looking at figure IV, we can observe that the yield from green bonds mainly contributes to the energy sector only. Other sectors must also be taken care of, such as transportation, water preservation, and waste management.

g. Green Wash Activities: Green Washing practices are one of the most significant issues with green bonds. It involves providing positive information about an organization's environmental and social initiatives while suppressing the misinformation to create a good impression.

CONCLUSION

At last, we can conclude that that green future has not been given much attention earlier. As a result, financial players have a great chance to intensify their efforts to pursue sustainable objectives. Additionally, for those developing green projects, green bonds are a vital source of long-term, practical cost of funding. There has been considerable growth in green bond issuance since its inception in India. In some years, good development is

traced, but in some years, there is a decline in its issuance. There is a need for the government sector to step forward because there is not much interest from the government sector in this area. The majority of the money is allocated to energy-related initiatives. Thus organizations involved in waste management, biodiversity protection, and water management must be supported. There are specific difficulties, including expensive issues, poor infrastructure, and a small market. Additionally, the market is dealing with issues including lack of knowledge among investors and issuers, and green-washing efforts. The government and all statutory agencies must provide significant support to address these issues.

REFERENCES

1. Agarwal, S., & Singh, T. (2018). Unlocking the green bond potential in India.
2. Bansal, S., Mani, S. P., Gupta, H., & Maurya, S. (2022). Sustainable development of the green bond markets in India: Challenges and strategies. *Sustainable Development*.
3. Climate bond Initiative. (2022). *Explaining the Green Bond*. Retrieved from Climate Bond: <https://www.climatebonds.net/market/explaining-green-bonds>
4. International Capital Market Association. (2022). *Green Bond Principles (GBP)*. Retrieved from ICMA: <https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/green-bond-principles-gbp/>
5. Jha, B., & Bakhshi, P. (2019). Green finance: Fostering sustainable development in India. *International Journal of Recent Technology and Engineering*, 8, 3798-3801.
6. Kumar, S. (2022). Critical Assessment Of Green Financing Initiatives In Emerging Market: A Review of India's Green Bond Issuances. *Academy of Marketing Studies Journal*, 26(5).
7. Mathur, A., Sharma, J., Wali, A. S., & Priyanka. (2020). *Innovative-financial-mechanisms*. TERI. Retrieve from TERI: <https://www.teriin.org/sites/default/files/2021-02/innovative-financial-mechanisms.pdf>

8. Mihálovits, Z., & Tapaszi, A. (2018). Green bond, the financial instrument that supports sustainable development. *Public Finance Quarterly*, 63(3), 303.

9. Panda, P. (2017). Green bond: A socially responsible investment (SRI) instrument. *Research Bulletin*, 43(1), 97-113.

10. Prakash, N., & Sethi, M. (2021). Green bonds driving sustainable transition in Asian Economies: The case of India. *The Journal of Asian Finance, Economics and Business*, 8(1), 723-732.

11. Rachello, V. (2019). The Green Bond Market in Emerging Market Economies. Green Bond Market Development and Green Premium analysis in Emerging Market Economies.

12. Sihag, A. R. (2022). *Going green with sovereign bonds*. Retrieved from The Hindu Business Line: <https://www.thehindubusinessline.com/opinion/going-green-with-sovereign-bonds/article65576681.ece>

13. Verma, A., & Agarwal, R. (2020). A study of green bond market in India: A critical review. In *IOP Conference Series: Materials Science and Engineering*, Vol. 804, No. 1, p. 012052.

14. Zala, P., & Vel, R. (2020). Empirical Evidence on Announcement Effect: The Case of Green Bond Offerings by Indian Companies. *Indian Journal of Research in Capital Markets*, 7(1), 38-47.

15. Zerbib, O. D. (2017). The green bond premium. Available at SSRN 2890316.



IMPACT OF MINING ACTIVITY ON ENVIRONMENT: AN OVERVIEW

DR. POOJA SHARMA

DEPARTMENT OF GEOLOGY, GOVERNMENT COLLEGE, SIROHI, 307001

ABSTRACT:

Mineral are crucial for any country's development and economic prosperity, so many open and underground mines have been created. On the other hand, this has an impact on our environment both directly and indirectly. Using large machines to generate more with less effort increases environmental issues. Due to mining activities, there are more environmental issues, such as land degradation, loss of biodiversity and forest, soil contamination, surface and ground water pollution, air pollution, and noise pollution. Stakeholders and the government should be informed of the laws & regulation that fall under "The Environmental Protection Act, 1986" in order to lessen the issue. This paper evaluates the effects of mining on the environment, including soil degradation, air pollution, noise pollution, water pollution, ecological disruption, health etc. and National Mineral Policy, 2019.

Therefore, a country's management of its mineral resources must be strongly connected to its entire economic development and preservation and conservation measures. Before major mining projects can be approved and carried out, the majority of countries around the world demand some sort of environmental impact assessment (EIA), and the contribution of these two acts, Environment Protection Act of 1986 and The Water (Prevention and Control of Pollution) Act of 1974, helps in reducing environmental pollution.

KEYWORDS:

MINING IMPACTS, NATIONAL MINERAL POLICY, 2019, ENVIRONMENTAL PROTECTION ACT, 1986, THE WATER (PREVENTION AND CONTROL OF POLLUTION) ACT, 1974, AND EIA

INTRODUCTION

Minerals are a crucial component of any nation's national economy. India is blessed with abundant mineral resources. The majority of the land is being mined, with a sizable amount of it being covered by forests. In India, there are up to 89 minerals and over 20,000 mineral deposits that are known 4 fuel, 11 metallic, 52 non-metallic and 22 minor minerals are generated at a cost of Rs. 73944.59 Crore (Annual Report, Ministry of Mines, 2004-05). Mines that are both open-pit and underground the ecology were impacted by both types of mines. Overburden is consolidated and unconsolidated material that is dumped on unmined areas as a result of open-pit mining operations and must be removed. One of the most pressing environment issues is control the overburden produced by these open-pit mines, which is linked to issues with soil erosion and topsoil loss, pollution of the water, air and noise, biodiversity loss, ecological disruption, social issues, health difficulties, and among other things.

MINING RELATED POLLUTANT AND EFFLUENT SOURCES

IMPACT ON WATER

- Water supply in the area is declining since mining utilizes a lot of water.
- Removing water bodies from the area to make room for dumping and quarrying.

- Interference with the drainage system.
- Hydrological regime, ground water regime, and ground water table disruption.
- Surface and ground water bodies are polluted by mine water discharge, runoff from coal stocks, and overburden dumps, particularly domestic effluents, making the water unfit for domestic use and, in some cases, even for agriculture purposes.
- Heavy/toxic metals may be produced by acid mine drainage (AMD) as a result of the presence of pyrite bands in coal seams. Among toxic water are the pollution of heavy metals like lead (many Chhattisgarh and M.P mining regions), mercury (around India but especially some of the most seriously affected places are coastal cities like Mumbai, Kolkata, Karwar (in Karnataka), and North Koel (in Bihar), and other pollutants include arsenic (Bihar, Jharkhand, and West Bengal) as well as uranium (Rajasthan, Jharkhand, and Panjab).
- Surface water bodies must be drained if the amount of subsidence movement on the surface exceeds the safe limit.
- Water from disturbed above-ground water bodies seeps into the underground caverns. It is necessary for this water to out of the mine,

pumped.

- As surface cracks grow, rainwater from the surface finds its way underground. This could include a variety of contaminants on the surface.
- When pumped out and released onto the surface, polluted underground water may also pollute surface water bodies.
- Avoid dumping overburden from mines in valleys or depressed areas adjacent to mined areas, which serve as the primary sources of surface or groundwater supplies (Nriagu, 1988). This effect may be seen in the major waste dumps constructed in the southern valley of the Jhamarkotra phosphorite mines, which contains shallow groundwater and surface water for supplying water supplies.



FIGURE SHOWING WATER POLLUTION BY MINING ACTIVITY

IMPACT ON LAND

- Land receives the brunt of open-pit mining's negative effects, accounting for over 85% of them.
- The use of land for large-scale excavation, dumping of overburden, construction of industrial and service buildings, roads and other infrastructure, townships, etc. cause significant land disturbance. If it affects forest land, agricultural area, or inhabited land, the effect is severe. When it comes to forest land, the impact depends on whether the area is thick of degraded, and whether it supports endangered or threatened species, endemic habitat, or both. Moving people involves inhabited land. Agriculture production is decreased when agricultural land is converted to residential and industrial use.
- Scholars and environmental activists have extensively researched and documented soil erosion and degradation brought on by a variety of environmental unorganized activities in general, and mining in particular.
- Because of siltation and runoff from overburden dumps, the alteration on top soil characteristics reduces the fertility of the land and the amount of

agriculture produced in the immediate area.

- A shift in land use due to the construction of building and other infrastructure.
- Topographic and drainage changes brought on by subsidence.
- A change in the effective use of land brought on by altering the underground and surface water regimes.
- Polluted water discharge on the surface affects the topsoil's quality.



FIGURE SHOWING DEFORESTATION IN THE MINING AREAS

IMPACT ON AIR QUALITY

- Air pollution from drilling, blasting, transporting coal and overburden, crushing, and screening that releases gaseous pollutants (SO_2 , NO_x , CO), suspended particulate matter, as well as dust.
- Pollution caused by waste-dump fires and mine fires including those that were left unattended after mining.
- Auto-emissions.
- The emissions from coke ovens and soft coke bhattas.



FIGURE SHOWING AIR POLLUTION BY MINING ACTIVITY

IMPACT ON NOISE POLLUTION

- Pollutants like SPM, CO_2 , NO_x , SO_2 , and others are contributed by mine exhaust air.

- Diesel generators, boilers, etc. release NOX, CO, SPM into the atmosphere.
- Equipment that is installed in shafts, incline, compressor houses, and workshops produces noise that contaminates the surrounding area.
- The use of land machinery during the handling of overburden raises noise levels in the nearby residential areas as well. However, at the planning stage, choosing the right disposal location can minimize any noise impacts on the locals. It is preferred to use “noise mapping” to visualize the spread of the noise and create noise contours, allowing for the planning and implementation of preventative actions (ABH Publishing Corporation). Although the Tenth Conference on Safety of Mines’ recommendations made noise mapping necessary in Indian mines (according to the Directorate General of Mines and Safety), the mining industry is still not placing enough emphasis on creating noise maps of mines.



FIGURE SHOWING NOISE POLLUTION BY USE OF BLASTING TECHNIQS & HEAVY MACHINES IN MINING AREAS

IMPACT ON ECOLOGY

- Clearing vegetation from land used for quarrying, detonating overburden, and building infrastructure.
- Deforestation if the mine is located near a forest.
- Wild life and other fauna disturbance brought on by clearing of vegetation on deforestation.
- Animals and birds flee the area due to noise and vibrations from machine operations and blasting.
- Decrease in water table, disruption of the waste regime, and air and water pollution all cause vegetation to grow more slowly.
- Aquatic flora and fauna decline as a result of polluted water discharge.
- The clearing of the region required for the development of the shaft/incline complex, infrastructure, settlement, etc. drive the wildlife out.
- Because of the aquifer fissures caused by underground mining, the adjacent area’s water

table is reduced. The growth of vegetation and agricultural products are negatively impacted by this.

- The top soil’s ability to support vegetation in the subsiding area’s tensile zone may be compromised.
- Aquatic ecosystem is impacted when toxic water from underground mines is discharged into surface water bodies.
- Environmental disorder and mining always go hand in hand, but open cast mining especially so. In addition to having an impact on river flow, siltation, water pollution, deforestation, and other factors, opencast mining also leads to soil degradation, vegetation degradation, and the destruction of productive land. Many times, important ore deposits occur near or close to a forest. This is specifically true of Karnataka, where open cast mining significantly contributes to deforestation in Bellary, Sandur, and Chikkanayakanahalli (Tumkur). Trees and vegetation are destroyed when infrastructure for any sort of mining is developed.
- In the end, the nallas become a river or reservoir. The increase in total solids, other minerals like fluorite, mercury, etc., and leachates from mine dumps, which are detrimental to aquatic life and human health, are the main causes of water pollution. As a result, the water’s dissolved oxygen content decreases. The aquatic life is impacted by this action. High levels of particle matter in the water column in surface waters can have harmful effects on fish and other aquatic life that are both chronic and acute.
- The biodiversity of birds, animals, medicinal plants, insects, flies, reptiles, sponges, etc. was harmed by gas mining. A total of 194 plant species were identified in Tumkur, Ballary, Hospet, and Sandur (TBHS) region, of which 90 are tree species, 36 are shrub species, and 68 are herb species, according to a study on the National Environmental Engineering Research Institute (NEERI) Report. In this area, 61 plant species with therapeutic characteristics can be discovered, including 28 trees, 23 herbs, and 10 shrubs. This accounts for 30% of all plant species. In forest areas, conservation and preservation of species in a state of balance are particularly crucial because each species has a specific ecological niche and connected to other species in some way via the food chain. The impact of mining on the forest, agriculture, aquaculture, and human life has increased in line with the more than fourfold growth in ore production since 1999-2000. In place with a higher concentration of mining activity, it has been seen that SDI is decreasing. Continuous serial mine stretches on its hilltops in

the Ramdurga block, NEB block, and other blocks have fundamentally altered the environment in the area. It has been noted that the majority of lessees are utilizing exotic species for planting to restore the landfills and other leased areas, which results in monoculture and will soon change the environment. The NEERI reported a substantial number of wild creatures during its investigation in 2001-2002, including 16 species of mammal, 145 species of bird, and 9 species of reptile. Due to mining related noise, air, water, and soil pollution as well as associated human disturbances, all of these species are currently endangered (Pullaiah. T, 2006). The night time mining operations have further fueled and exodus of wild animals from surrounding forest. The loss of biodiversity in the area would be caused by the fine dust produced by mining activities, such as transportation, which settles on flowers, fruits, leaves, etc. and prevents seed germination (Environmental Geology-ecosystem protection in mining zones).

- Opencast mining activities alter the earth's surface. Overburden dumps are man-made habitats that contribute to a number of environmental issues, such as habitat fragmentation, dust pollution, erosion, and an overall disruption of ecology in the surrounding area.
- Sediments that have been deposited in layers in terrestrial ecosystem can have a variety of effects on groundwater, surface waters, and terrestrial ecosystems. Heavy metals may be mobilized by minerals linked to deposited sediments and transported to nearby surface waters or subsurface aquifers by lowering the pH of surface discharge. Additionally, contaminated sediments may reduce the pH of soils to the point that suitable habitat and plants are lost. (Journals and daily news publications)

IMPACT ON SOCIETY

- The eviction of landowners' neighbours. The stress and anguish of moving deteriorated the PAPs' already precarious health conditions.
- Loss of income for those who are directly or indirectly dependent on the land.
- Outsider immigration (officers, skilled workers, contractors, small business owners, and government officials), which rapidly declines after the mine is shut down. Local ethnic culture has been diluted.
- Noise from crushing and blasting, as well as disturbance and health effects on the local population.
- The sanitation has been severely compromised. As a result of the widespread accumulation of feed dust, several ailments affect humans. Heart

disease, cancer, and lung infections are very common in the mining region. According to environment officers with the Karnataka State Pollution Control Board, the problem of dust during transportation is not resolved because there are no basic criteria that have been defined and where action may be taken. Due to mining activity, people are suffering from pandemic diseases. Pure food, pure air, and pure drinking water are now uncommon. The equilibrium of the surroundings is absent.

- Urbanization (well-organized townships, markets) while mining is active and the abandonment of remnants after mining is complete.
- Threats to property and human life after mining. Society's aspirations are rising.
- In the event of a mine area slope failure, communities close to overburden dump sites run the risk of having mud slide from the dumps. The settlement is affected in numerous ways when the entire muck etc. enters there. This incident took place in the adjoining Khadia overburden dumps of Chilkad and Basti. In the interim, a tunnel through the Basti has been built of efficiently drain run-off water.
- Impact on the mining industry's high labour intensity in India which, despite attempts at mechanization, is continuing to intensify and calls for serious and honest efforts in this crucial area of environmental challenge. In this sense, significant variables that have a bearing on worker health include:
 1. The production of dust, especially irrespirable dust.
 2. The surrounding and conditions at work.
 3. Vibration and noise, with the latter being particularly hand-transmitted.

Research on this topic conducted by CMRs (Central Mineral Resources) in a few coal mines and industrial districts of the Jharia and Raniganj coal fields has shown that 19-20% of the population suffers from respiratory ailments (silicosis), and 23-24% from gastrointestinal issues. Another 16% is accounted for by illnesses including malaria, pneumonia, tuberculosis, fever, etc. (R.N.Trivedi-2001)

- Loss of common property resources, in general, common property resources (CPRs) are resources that are available to the entire community of a village and over which no one person has exclusive ownership rights. They include village pastures, community woodlands, wastelands, shared threshing areas, trash disposal sites, watershed drainages, village ponds, tanks, rivers/rivulets, and river beds in India's dry regions. Many people's resources and property

have been damaged by the mine owners and middleman. Tanks and community land have been obtained. The public has been greatly inconvenienced by this. These days, water is not collected in tanks, and the water that is, is polluted by the accumulation of dust on the surface. Desserts are created by destroying forests. (Campaigns)

CPR decline might manifest in one of three ways:

1. Physical loss of resources, like the surrender of grazing land to a recently built irrigation dam or CPR area covered with buildings and highways.
2. Degradation of pastures of forest land, which reveals a decline in the physical productivity of resources.
3. A change in ownership and usage rights as evidenced by the sale of CPR lands to private parties. (2006) Benny Joseph

WATER POLLUTION RULES AND REGULATION

In order to prevent and manage water pollution and to maintain or restore the country's water's wholesomeness, the Water (Prevention and Control of Pollution) Act was passed in 1974. In 1988, the Act was modified. In order to provide for recovery and collection of a cess on water consumed by people operating and carrying out specific types of industrial operations, the Water (Prevention and Control of Pollution) Act was passed in 1977. The purpose of this cess is to augment the financial resources available to the Central Board and State Boards for the prevention and control of water pollution, which were established in accordance with the 1974 Water (Prevention and Control of Pollution) Act. The Act last underwent revision in 2003.

NATIONAL MINERAL POLICY 2019

The National Mineral Policy 2019 contains provisions that will help the mining industry, such as:

- Granting RP/PL holders the right to first refusal.
- Encouraging the private sector to engage in exploration.
- Transferring mining leases and establishing specific mineral corridors to expand mining operations in the private sector.
- The 2019 Policy suggests giving mining activity the status of an industry to encourage private sector financing of mining.
- It also states that a long-term import-export mineral policy will aid the private sector in more stable planning.
- The Policy also urges efforts to align taxes, levies, and royalties with international standards in order to support the private sector.

THE ENVIRONMENT PROTECTION ACT, 1986

Under Article 253 of the Constitution, the Environment

Protection Act of 1986 (the "Environment Act") addresses subjects related to the protection and enhancement of the environment. The United Nations Conference on Human Environment, which took place in Stockholm in June 1972, is when the act was founded. India took part in this initiative to improve environment conditions and take the necessary precautions to protect the environment. The ability of the central government to act, the protection and improvement of environment, the appointment of officers and their duties, the ability to issue directives, and the creation of regulations to control environmental pollution. The Environment Protection Act lays out a framework for researching, organizing, and putting into practice long-term environmental safety requirements. It also establishes a system for prompt and adequate response to environmental threats. It is an overarching piece of legislation created to offer a framework for coordination of federal and state agencies that were established in accordance with the 1974 Water Act and the Air Act. Under section 2(a) of the Environment Act, the term "Environment" has a fairly broad definition. It covers land, water, and the relationships that occur between those elements and people, other living things, plants, animals, micro-organisms, and property. Be regulating the location of industries, the management of hazardous wastes, and the protection of public health and welfare, the Central Government is given the authority to take the necessary actions to protect and improve the quality of the environment. These actions include setting standards for emissions and discharges of pollution into the atmosphere by anyone conducting and industry or activity. The Central Government occasionally issues notifications pursuant to the Environment Act for the protection of ecologically sensitive areas or issues guidelines for matters pursuant to the Environment Act for the protection of ecologically sensitive areas or guidelines for matters pursuant to the Environment Act.

MITIGATION MEASURE FOR CONTROL THE IMPACT OF MINING ON ENVIRONMENT

Water consumption in mining regions is quite dangerous. Surface water or groundwater will inevitably be directly or indirectly contacted by mining operations, having an effect on the aquatic environment. Therefore, businesses must make investments to prevent water contamination or, in the event that it does, to cleanse the water or keep it contained in the proper reservoirs, pipelines, canals, or other storage facilities. Environmentally friendly methods and technology must be encouraged in the mining industry.

The rule that businesses must adhere to is as follows:

- Finding substitutes for the mineral that is currently widely used while conserving resources and managing waste as little as possible.
- Correct metal recycling.
- The use of eco-friendly technologies.
- Energy conservation.

- Mining activities have a negative impact on the locals, lowering their standard of living and endangering their homes and livelihoods, particularly farming. The operation of the operator and others in this area should be looked into by the government at all levels, and adequate compensation should be given out in a suitable manner after reviewing and reevaluating the EIA.
- Before requesting a government-issued quarrying licence, it is advised that a thorough Environmental Impact Assessment be conducted. The government should establish a task force to look into companies that violate the code of practice for Quarrying Activities and bring legal action against offenders.
- The people who live there, the government, and quarry Operator Corporation should all agree on a method. Settlers should be relocated and well rewarded. During the issuing of licences and government monitoring activities, the interests of the residents should be objectively taken into account. Geologists, engineers, conservationists, and surveyors should be on the government task force team.
- Environmental management techniques.
- Waste is used as a raw resource.
- Reducing waste production by re-engineering the processes (Recycling of Industrial Effluents).
- Minimizing the need for land by careful planning of mining and related activities.
- Systematic collection, storage, and reuse of top soil as quickly as feasible on reclaimed territory.
- Using crushing and screening plants, dust extractors, and drills.
- Regulating mine fire.
- Design the mine layout to minimize disruption of the drainage pattern and surface water bodies.
- Facilities such as roads, link roads, street lighting, wells, tube wells, hand pumps, schools, community halls, health centers, veterinary centers, shopping centers, panchayat bhawan, children's parks/play areas, and tree planting are to be provided at rehabilitation sites.
- By treating resettlement and rehabilitation as an essential aspect of mining and allocating sufficient manpower and financial resources, you can restore or even improve the social and economic well-being of the displaced population.
- Opt for equipment with a low noise level.
- Surface miners' mining of coal results in a significant reduction of noise and ground vibration.
- Use of controlled blasting and proper blasting

design to reduce ground vibrations.

CONCLUSION

Surface and groundwater pollution is one of the significant effects of mining activity. Mining practices have serious environmental impacts related to water pollution, land degradation, loss of biodiversity, air pollution, increase in health related problems, noise pollution, vibration, and subsidence and landslides. The government should strive to offer technical assistance to local mine stakeholders, such as instruction in task facilitation and management. Mine waste needs to be regulated and transformed into a non-harmful form before it is released into waste ponds. New technology needs to be developed that uses fewer chemicals during extraction and processing. All mining operations, large and small, must be required to produce an accurate environmental impact assessment report in order to obtain a mine license. The Environmental Protection Act of 1986 should be strictly applied by the government to the whole mining industry, and an inspection officer should be appointed to ensure that the act is being followed by the mine owner. All of the society's stakeholders must initially actively follow the National Mineral Policy, 2019.

REFERENCES

1. Agarwal. S. K, 2005, Noise Pollution, ABH Publishing Corporation, New Delhi-002
2. Annual Report, 2004-05 & 2018-19. Ministry of Mines, Govt. of India.
3. Benny Joseph, 2006, Environmental studies, Tata Mc Graw Hill Publishing Campaigns; kudermukh betrayed: The KIDCL, Mining Saga, Karnatka, 2008-10.
4. Campaigns; kudermukh betrayed: The KIDCL, Mining Saga, Karnatka, August, 2000.
5. Environmental law in India by Vinay Vaish.
6. Ghosh Rekha, Chatterjee, 2004, Environmental Geology - Ecosystem Protection in mining areas, Capital Publishing Company, 7/28, Mahaveer Street, Ansari Road, Daryganj, New Delhi-0001.
7. Journal & Daily News Papers.
8. Khobragade Krishna, 2020. Impact of mining activity on environment pp. 784-791
9. L. C. Kaku, 2016, Mine management, legislation and general safety.

10. National Mineral Policy 2019.

11. Nriagu, J. O and Pacyna, J. M. 1988. Quantitative assessment of worldwide contamination of air, water and soils by trace metals. Nature. Pp 134-139.

12. Pullaiah, T, 2006. Biodiversity in India, Vol-IV Regency Publication, New Delhi

13. The Environment Protection Act, 1986, Ministry

of Environment & Forests.

14. Trivedi, R. N. 2001, A text book of Environmental Science, Anmol Publishers, New Delhi.

15. Wikipedia



INCULCATION OF QUALITY TEACHING STRATEGIES FOR THE HYBRID LEARNING MODEL WITH SPECIAL REFERENCE TO TEACHER EDUCATION

DR MOHIT DIXIT

HEAD, DEPARTMENT OF EDUCATION, PARISHKAR COLLEGE OF GLOBAL EXCELLENCE, JAIPUR.

LOVISH RAHEJA

STUDENT, DEPARTMENT OF NATURAL AND APPLIED SCIENCES, TERI SCHOOL OF ADVANCED STUDIES, NEW DELHI.

ABSTRACT:

'Hybrid' means something that is composed of different components. In education, the hybrid learning model refers to the blending or mixing of face-to-face classroom instruction and online technology-enhanced environments. These environments are intended to serve multiple objectives, including socio-emotional, physical, linguistic, and literacy development. Moreover, a discourse on teacher-education-related specific objectives is also presented in this paper. Now, to touch on all these aspects, some principles must be followed to facilitate development in the best possible manner. These principles include having a visionary approach, co-relation with real life, focusing on fundamental concepts, and planning with flexibility.

A simple and practical hybrid learning model is developed by considering a contextual set of objectives and principles. This model comprises six steps: assimilation and formalization of objectives, identification of curriculum categories, planning, pre-evaluation, execution, evaluation, and feedback. An example of this model is shown in an excerpt from the syllabus of the UOR, which seemed to complete the desired objectives to a large extent (qualitatively). Though, the field experiment has not been done at the present stage of the research.

KEYWORDS:

HYBRID LEARNING MODEL, TEACHER EDUCATION, QUALITY INNOVATIVE STRATEGIES, BLENDED LEARNING.

INTRODUCTION

The development of Science and Technology affects all disciplines of life, including education. One business approach to technology is to adopt technologies for better profitability (Davenport, 2017). However, this approach is not useful in education. Education is the process, the mere digitalisation of which leads to a lower level of accomplishment of objectives. However, repudiating the technological aspect is also questionable, as it hinders the calibre of education. This means that there is a need for a blended approach which is a hybrid model of learning (Tayebinik & Puteh, 2013). In the entire discourse of this paper, there is an attempt to propose a structure of an innovative model of hybrid learning,

OBJECTIVES

1. To define the hybrid learning model
2. To find the objectives of teaching strategies
3. To know the principles which are needed to be followed for the accomplishment of those objectives
4. To find the specific requirements of teacher education in this context
5. To construct a model for inculcating those principles and fulfilling those objectives using avant-garde quality teaching strategies to achieve the desired outcomes in the best possible way

LITERATURE REVIEW

It is important to review some of the previous approaches to the hybrid learning model so that the proper structure of the new model can be designed.

Bryan & Volchenkova (2016) in their study '**BLENDED LEARNING: DEFINITION, MODELS, IMPLICATIONS FOR HIGHER EDUCATION**' discussed the concept of blended learning in a generic way. The study was conducted under the project initiated by the Ministry of Education of the Russian Federation. This study aimed at the conceptual analysis of blended learning and its possibilities of an effective transition from the traditional model to the integrated one. This study took into account the definition of Friesen as the basis which defined blended learning as "*the range of possibilities presented by combining Internet and digital media with established classroom forms that require the physical co-presence of teachers and students*". After a constructive discussion related to the definition, the authors deliberated over various models of blended learning, from the initial typologies to the most advanced concepts that have recently evolved. This is the primary focus of our review.

The earlier typology by Valiathan divided learning models into three types: skill-driven, attitude-driven, and competency-driven. This has been criticised because of its mixed nature, inculcating both learning objectives and pedagogical methods. From this, if these two are separated, and their inter-dependency is considered, then

a better model can be designed.

Staker and Horn's consideration, as discussed in their study, has six models. They are the face-to-face driven model, the rotation model, the flex model, the online lab model, the self-blend model, and the enriched virtual model. These models differ based on the extent and variability of the two learning environments: classroom teaching and online learning.

Further, Graham's classification of the blended learning model is discussed which divides the models based on different dimensions (space, time, sensual richness, and humanness), levels (activity, course, program, and institution), and types (enabled blends, enhancing blends, and transformative blends). These dimensions are based on bimodal theory. These levels separate the solitary learning model from the learning model at the school/college level. Category division is related to the purpose of the model, where transformation is given the highest priority.

A psychological theory-backed review of the four hybrid learning models was provided by Chew, Jones, and Turner. Salmon's structured e-moderation is based on the sequential transition of students into an online environment. Maslow's principle provides theoretical support for it. Sun Microsoft systems' 'learning ecology' is a type of quadrant that takes self-directed/guided learning and content/practice as the axes in the second model. This model is supported by Vygotsky's principle of cognitive development. This is somewhere based upon the interaction of the two most essential poles of education (student and teacher) concerning the desired objectives and to be applied teaching strategies. The third model is Jones' blended learning continuum, which is somewhat related to Graham's categorical division, which accepts the requirement of different plans for different disciplines. Thus, this model is flexible in that sense. The fourth model is Garrison and Vaughan's enquiry-based framework which emphasises effective enquiry-based collaborative interaction among students and teachers.

Overall, these models have various implications and approaches considering different contexts, and their practical application extent is subject to a thorough review; therefore, there is an exigency of a model with a simplistic approach.

Kim (2014), in his study titled '**Types of Blended Instruction: Different Approaches to Different Mixes**,' discussed four hybrid learning models via case studies. These models were the learning enhancement, accessibility, instructor discretion, and cost-effectiveness models.

The **Learning Enhancement Model** uses the online mode of learning as a complement to classroom instruction, similar to the face-to-face model described by Staker and Horn. This model fosters the interchange of questions and reflections, through which high-quality learning is achieved. In the case study, the model used the IDEAL approach for pedagogy which has five major steps:

identifying problems and opportunities, defining goals, exploring, anticipating outcomes and actions, looking back, and learning called VISTA was deployed. To examine the quality of students and teachers' interaction, the study used the Interaction Analysis Model (IAM) which takes into consideration the five phases: "*Sharing and Comparing Information, Discovery, and Exploration of dissonance or inconsistency or advanced teaching strategies, negotiation of meaning/co-construction of knowledge, testing and modification of proposed strategies or co-construction and metacognitive statements or application of newly constructed meanings.*"

The Second Model is the **accessibility model** which insists on flexibility to obtain higher enrolment, that is, higher accessibility to the institution. This model in the case study failed to accomplish its objectives for various reasons such as the traditional attitude, failure to locate compatible online components, and the interrelation of the strength of one environment to the weakness of the other environment.

The third model, the **instructor-discretion model**, was successful. In the case study, the model was applied to mathematical subjects. The model had two primary components: traditional instruction on a face-to-face basis and multimedia presentations. Specific technological enhancements were suggested that were exclusive in nature, meaning that some benefits were only possible through technical means. This model had been proven to increase the effectiveness of teaching and to reduce the rate of failure of students.

The Fourth Model studied was the **cost-effective model** that considered the strain of financial resources of a professional development initiative for in-service teachers. The model had wide accessibility and the potential to curb the gaps between low- and high-financial resource institutions. This model had three formats: face-to-face learning, collaborative team sessions, and digital online instruction. Time, varying needs, the flexibility of professional development opportunities, provisional support, collaborative development, linking technology and educational objectives, and intellectual and professional simulation are important factors to be considered when administering the model.

DEFINITION

Hentea, Shea, and Pennington (cited in Alnajdi, 2014) in their study defined hybrid learning as the combination of an online environment inculcating the flexibility of distance or outside of the classroom and face-to-face classroom instruction.

Another study by **Doering (cited in Alnajdi, 2014)** defined hybrid learning as the blending or mixing of the learning environments: face-to-face classroom teaching and online learning environment.

OBJECTIVES OF THE DESIGN OF TEACHING STRATEGIES

Ingco (2014) in his SlideShare presentation '**Elements of**

Educative Process' talked of 6 elements of the educative process which are: The Teacher, the Learner, the Content/Teaching Strategies, the Curriculum, the Instructional Materials, and the Administration. The main focus of this text as mentioned in the title is 'Teaching Strategies'. So, there will be more focus on this part.

In the study by **O'Keefe et al. (2015)** titled '**Teaching and Learning Objectives: The First Step in Assessment Program**', the authors wrote that the determination of objectives is the most essential need of reliable and effective student assessment. If it is analyzed in the other manner, it is known that gaining some observable output is one of the key things which becomes visible in the form of accomplishment of the aims and objectives. Further, the authors have also stated that the determination of these objectives and aims should be driven by the mission statement of the respective institute. This is also one of the major things to be kept in mind. If the mission statement is comprehensive and dedicated towards a holistic approach, then the developmental goals can be achieved in a better way.

In the study of **Saputra (2014)** titled '**Teaching Strategies**', the need for the design of teaching strategies which can be treated as objectives was highlighted. These are:

- To have a didactic approach to the teaching-learning process,
- To combine and optimal organization of the teaching methods,
- Means and forms of grouping the participants,
- Active and creative learning of knowledge,
- To rationalize the educative process,
- To accomplish the educational objectives.

Further, **Teaching Strategies** lists 38 research-based objectives of teaching which are categorized into the following domains:

- Socio-Emotional
- Physical
- Language
- Cognitive
- Literacy
- Mathematics
- Science and Technology
- The Arts
- English Language Acquisition

So, it is needed to be focused on all these objectives in a well-versed manner while designing the model.

PRINCIPLES OF DESIGNING TEACHING STRATEGIES

Teaching strategies are choosing the procedures to educate concerning the specific subject (Saputra, 2014).

These procedures are intended to make teaching impactful and for this purpose, **Kember and McNaught (cited in Devlin & Samarawickrema, 2010)** listed some 10 principles which are given below:

1. Meeting Students' future needs,
2. Major emphasis on the understanding of fundamental concepts,
3. A co-relation with real life,
4. Challenging students' beliefs to deal with misconceptions,
5. Inculcation of various learning tasks in a meaningful way,
6. Development of genuine and empathic relationships with the individual students
7. Motivating students through higher levels of self-enthusiasm and encouragement,
8. Congruency and consistency with the desired outcomes,
9. Planning with flexibility,
10. The evaluation must be congruent with the learning outcomes.

These principles are to be kept in mind while designing the whole course of the model.

In the reporting of **Education Week (cited in Barnwell, 2020)**, there are suggested the following activities for classroom and remote learning modes:

For classroom activities, interactive sessions, hands-on lessons, laboratory work, one-on-one instruction time for vulnerable students, well-being check-ins, remote learning mode activities, video lectures or presentations, independent work like worksheets, reading and writing, and elective, remediation or advanced works have been suggested

SPECIFIC REQUIREMENTS OF TEACHER EDUCATION PROGRAM

National Curriculum Framework for Teacher Education 2009 (NCFTE 2009) lists the following points envisioning the role of the teacher and praxis of teacher education (chapter 1, page 20):

- Teachers are to be prepared in a manner that they develop the sense of caring for children, enjoying being with them, seeking knowledge, taking interest in their holistic development, developing sensitivity towards learners' problems, having the allegiance to justice and ardour for social reconstruction.
- Teachers should consider students as active participants in learning not merely the recipient of knowledge.
- Teacher education must involve a suitable combination of theoretical and practical learning experiences so that the pupil-teachers develop a deep sense of the actual concept of learning.

- Teachers need to be taught the organization of active learner-centric and participatory activities so that the process of learning becomes effective.
- Teachers should be allowed to critically examine the curricula, syllabi and textbooks so that they become the leader of change.
- The teacher-training program should provide some opportunities for pupil-teachers to reflect and develop the ability to think independently.
- The teacher-training program should co-relate theories with real contexts.
- Social sensitivity and finer human sensibility should be developed.
- Broadening of curriculum and appreciation of the potential of hands-on experience.
- Teachers need to reconceptualise citizenship education so related values should be incorporated into the teacher education curriculum.
- The evaluation protocol needs to be comprehensive.

NOVEL APPROACH TO HYBRID LEARNING MODEL FOR TEACHER EDUCATION

Now is the time to start the framework of the desired model based on the essential studies done.

ASSIMILATION AND FORMALIZATION OF OBJECTIVES

This is the first step of doing any systematic work. As there is a specific concern about the teacher education program, so there will be a prime insistence on the envisioning done by NCFTE 2009.

IDENTIFYING CATEGORIES OF CURRICULUM

It is time to define different segments of the curriculum. Since the teacher education curriculum is aimed at providing a practical dimension to the trainee. Therefore, there will be an identification of the nature of the content so that relevant teaching strategies can be incorporated.

PLANNING

After the decision of the different categories, the selection of strategies in a way that suits the time bounds is essential.

PRE-EVALUATION

The planned strategies should be theoretically tested on the principles proposed by Kember and McNaught (cited in Devlin & Samarawickrema, 2010).

EXECUTION

While implementing the plan, there is needed to have flexibility with strategies to some extent so that practicality remains there i.e., the failure of one component should not lead to the failure of the whole system.

EVALUATION AND FEEDBACK

There are always chances for mistakes to take place and so those of improvement and innovation opportunities. Keeping this in mind, the success of the program must be comprehensively and continuously determined and required changes should be made.

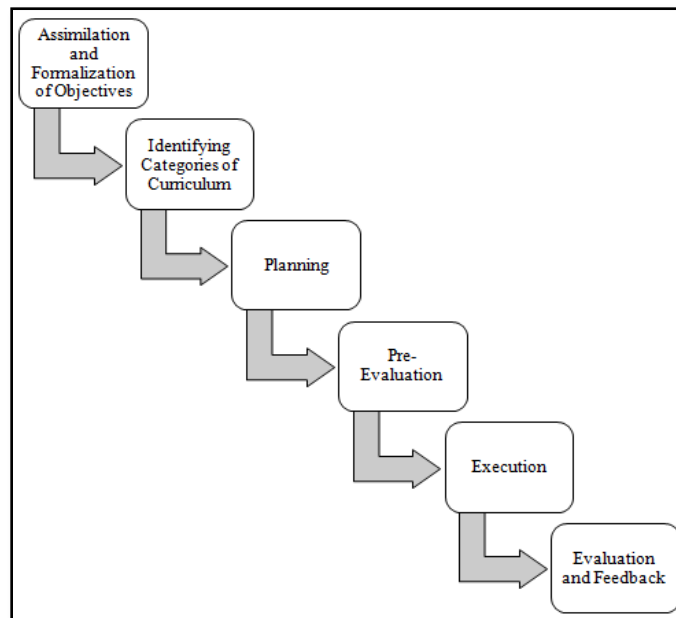


FIG. 1: FRAMEWORK OF THE PROPOSED MODEL

It is time to understand the concept in depth via a practical example. In the following table, the syllabus of the subject Childhood and Growing Up Unit 1 (Integrated Programme of B.Sc B.Ed. Degree, 2020) of the University of Rajasthan has been provided in table 1.

TABLE 1: SYLLABUS OF UNIT 1 OF THE SUBJECT CHILDHOOD OF GROWING UP AS PER THE UNIVERSITY OF RAJASTHAN

Unit I	Role of Psychology to Understand the Child
1.	Psychology: The Meaning, Nature and Branches of Psychology
2.	Methods of Psychology: Case Study and Experimental, Educational Psychology
3.	Meaning, Nature, Scope, Educational Implication of Psychology in the New Era
4.	Child Psychology: Meaning, Concept

Before initiating the analysis, it is needed to keep the reader informed that the count of units in the subject is five. Based on this, 20 days should be assigned to the unit since other units may be lengthy (and they are).

SOME OF THE KEY POINTS TO REMEMBER HERE ARE:

- When it talks about learning as self-paced, it is aimed at diminishing the academic time bounds which can be in both ways: remote mode and classroom instruction. This makes it clear that learning is not like a 9 to 5 job, it is completely

about achieving desired outcomes.

- Teaching strategies or methodologies have ultimately no limits but it has been tried to deal with a limited set of strategies as per the reference chosen (Barnwell, 2020).
- This learning model is generic in nature and insists more on practical aspects.

Assimilation and Formalization of Objectives

The identified objectives of this particular unit are:

1. To make students acquainted with the foundational concepts of the main subject and its branches especially Child Psychology and Educational Psychology
2. To aware the students with the methods and implications of psychology

For this, the desired generic outcomes will be (considering the **Teaching Strategies** discussed above):

1. Understanding of the need for student-centric education and students’ perspectives (Socio-Emotional Perspective)
2. Understanding the applications of psychological experiments at the ground level (Physical Aspect)
3. Development of the preliminary terminology related to psychology (Language)
4. Ability to relate Child Psychology and Educational Psychology with real-life contexts (Cognitive)
5. Development of LSWR skills for the effective study of the subject (Literacy).
6. Development of the understanding of scientific inquiry and use of scientific tools (Science and Technology).
7. Basic knowledge of mathematics is needed for the on-field study of the subject (Mathematics).
8. Understanding the implication of psychology in society (Social Studies)
9. Understanding of effective representation and explanation of the learned content (Arts)
10. Learning the subject from global perspectives (English language acquisition).

IDENTIFICATION OF CATEGORIES OF CURRICULUM

The following classification can be done from the above-mentioned content:

FOUNDATIONAL CONCEPTS

- Psychology: The Meaning, Nature and Branches of Psychology
- Meaning, Nature and Scope of Educational Psychology
- Meaning and Concept of Child Psychology

PRACTICAL EXPERIENCES

- Methods of Psychology: Case Study and Experimental

REFLECTIVE PRACTICES

- Educational Implication of Psychology in the New Era

PLANNING STAGE

After defining the different categories, the unit can be planned in the way depicted in table 2.

TABLE 2: HYBRID UNIT PLAN

Content	Category	Teaching Strategy	Time
Psychology: The Meaning, Nature and Branches of Psychology	Foundational Concept	Video Presentation with Objective Evaluation at the End	3 days
Methods of Psychology: Case Study and Experimental	Practical Experiences	Field or Lab Visits and Practice of the Methods at the Micro-Level	3+5 days
Meaning, Nature and Scope of Educational Psychology	Foundational Concept	Video Presentation with Objective Evaluation at the End	3 days
Educational Implication of Psychology in the New Era	Reflective Practices	Classroom Interaction	2 days
Child Psychology: Meaning, Concept	Foundational Concept	Video Presentation with Objective Evaluation at the End	2 days
Descriptive and Creative Evaluation	Evaluation	Writing Practices, Fostering Creative Development	2 days
		Total	20 days

STRUCTURE OF STRATEGIES

As the learning of the foundational concepts should be self-treaded, therefore, a pre-recorded video presentation along with an objective evaluation at the end will take

place. Videos should be equipped with lively animations. The methods of psychology can be shown through lively examples such as the arrangement of a meeting with an expert psychologist or if the institution has a psychology lab, then some micro-level experiments can be shown and practised. For studying the educational implication of psychology in the new era, classroom interaction using brain-storming or discussion methods can be done. As some objective evaluation has already happened, so the end of the lesson evaluation should be targeted at the enhancement of creative development which will also be targeted at the summative evaluation format.

PRE-EVALUATION STAGE

It can be seen that the program follows the aforementioned principles in the following way:

- It meets students' future needs as the methodologies used, help in assimilating the importance and implications of psychology.
- It emphasizes the foundational concept at near to 50% of the time is given to the foundational concepts.
- Since field and laboratory visits are included. Therefore, it has a co-relation with real-life contexts.
- The use of methods like brainstorming and effective classroom interaction helps in challenging the preconceptions and beliefs related to psychology from the educational perspective.
- The teaching methodologies or strategies used inculcate various types of tasks to assure the active participation of the students.
- Classroom interaction provides a good opportunity to develop empathetic relationships with the students.
- Methods used in classrooms help students stay motivated and continuous evaluation inculcation also boosts this aspect.
- The plan has the potential to fulfil all the desired objectives and broadened outcomes.
- The plan has flexibility towards the deployment of methods concerning practical situations.
- Continuous and consistent evaluation practices have been recommended.

Now, execution, evaluation and feedback on the plan are subject to practical engagements which have not been organized yet.

CONCLUSION

This paper proposes a simple and pragmatic model and idea for hybrid lesson plans. As technology progresses, changes in education are also required to inculcate scientific and progressionist values in the students. Thus, it is thought that this is the time to formulate hybrid lesson plans. As cleared earlier, teaching is not a business-like

process where a higher amount of inculcation of technology will lead to a growth in efficiency but it should be considered as a matter of combined concerns. Therefore, the hybrid learning model is the most important requirement for today and its implication in a proper way would lead to the improvement in the standard of education and achieving the fourth SDG goal.

REFERENCES

1. Alnajdi, S. (2014). HYBRID LEARNING IN HIGHER EDUCATION. Indiana State University.
2. Barnwell, P. (August 7, 2020). How to Plan for Hybrid Teaching and Learning. *Common Sense Education*. Retrieved from: <https://www.commonsense.org/education/articles/how-to-plan-for-hybrid-teaching-and-learning>
3. Bryan, A. & Volchenkova, K.N. (2016). BLENDED LEARNING: DEFINITION, MODELS, IMPLICATIONS FOR HIGHER EDUCATION. *Bulletin of the South Ural State University*. Ser. Education. Educational Sciences. 2016, vol. 8, no. 2, pp. 24–30.
4. Davenport, D. (Jul 18, 2017). The Right Technology Increases Business Efficiency and Profitability. *MotherG*. Retrieved from: <https://insights.motherg.com/blog/the-right-technology-increases-business-efficiency-and-profitability>
5. Devlin, M. & Samarawickrema, G. (2010) The criteria of effective teaching in a changing higher education context, *Higher Education Research & Development*, 29:2, 111-124, DOI: [10.1080/07294360903244398](https://doi.org/10.1080/07294360903244398)
6. Ingco, L.C. (July 5, 2014). Elements/Components of the Educative Process. Retrieved from: <https://www.slideshare.net/louiseingco/elements-of-educative-process>
7. Integrated Programme of B.Sc B.Ed. Degree (2020). Examination B.Sc B.Ed. Part-I, *University of Rajasthan*. Retrieved from: <https://www.uniraj.ac.in/index.php?mid=3102>

8. Kim, J. (2014). Types of Blended Instruction: Different Approaches to Different Mixes. Retrieved from:

<https://www.semanticscholar.org/paper/Types-of-Blended-Instruction%3A-Different-Approaches-Kim/fb71f5c21ad20b96f8ce9ee4072eae503d5316d3>

9. National Curriculum Framework for Teacher Education: Towards Preparing Professional and Humane Teacher. (2009). National Council for Teacher Education (pp.20).

10. O' Keefe, R.D., Lopez, J.R., Xu, J., Lall, R.K. (2015). Journal of Learning in Higher Education, Spring, 11(1).

11. Saputra, J. B. (2014). Teaching Strategies. Pendidikan Agama Islam Ideal Bagi Difabilitas (Project). Retrieved from:

<https://www.researchgate.net/publication/3274339>

65_TEACHING_STRATEGIES

12. Staker, H. (2011). The Rise of K-12 Blended Learning: Profiles of Emerging Models.

13. Tayebinik, M. & Puteh, M. (2013). Blended Learning or E-Learning. Retrieved from: <https://arxiv.org/pdf/1306.4085>

14. The 38 research-based objectives are at the heart of everything we do and they define the path teachers take with the children in their classroom. Teaching Strategies. Retrieved from: <https://teachingstrategies.com/our-approach/our-38-objectives/>



“NEW EDUCATION POLICY -2020: AN ANALYSIS OF CONTRIBUTIONS IN THE MAKING OF SELF-RELIANT INDIA”

DR. PRADEEP KUMAR SINGH

ASSOCIATE PROFESSOR (FACULTY OF LAW) MADHAV UNIVERSITY, RAJ.

ABSTRACT:

KEYWORDS:

INTRODUCTION

This Education policy of the 21st century and aims to address the many growing developmental imperatives of our country. Today's various dramatic scientific and technological advances, such as the rise of big data, machine learning, and artificial intelligence and many unskilled jobs worldwide may be taken over by machines, while the need for a skilled workforce, particularly involving mathematics, computer science, and data science, in conjunction with multidisciplinary abilities across the sciences, social sciences, and humanities, will be increasingly in greater demand in becoming increasingly critical that children not only learn but more importantly learn how to learn. Education thus, must move towards less content and more towards learning about how to think critically and solve problems, how to be creative and multidisciplinary, and how to innovate, adapt, and absorb new material in novel and changing fields. Pedagogy must evolve to make education more experiential, holistic, integrated, inquiry-driven, discovery-oriented, learner-centered, discussion-based, flexible, and enjoyable.

MAIN FEATURES OF NATIONAL EDUCATION POLICY 2020

This is the first education policy of the 21st century and replaces the built on the foundational pillars of Access, Equity, Quality, Affordability and Accountability, Credibility in this policy. Agenda 2030 for Sustainable Development and aims to transform India into a vibrant knowledge society and for global knowledge superpower by making both school and college education more holistic, flexible, multidisciplinary, suited to 21st century needs to bringing out the unique creation and development of student. This policy has been formulated after a very detailed consultative process, unprecedented in depth every part of the country. Consultation involved over two lakh suggestions from 676 Districts. The MHRD had initiated a collaborative, inclusive, and highly participatory consultation process from January 2015., 'Committee for

Evolution of the New Education Policy' under the Chairmanship of Late Shri.T.S.R. Subramanian, Former Cabinet Secretary, submitted its report Based on this, the Ministry prepared In May 2016 on 'Some Inputs for the Draft National Education Policy, In June 2017 the 'Committee for the Draft National Education Policy' was constituted under the Chairmanship of eminent scientist Padma Vibhushan, Dr. K. Kasturi Rangan, which submitted the Draft National Education Policy, in 2019 the Hon'ble Human Resource Development Minister. The main features of this policy was as follows:

1- NEW CURRICULAR AND PEDAGOGICAL STRUCTURE OF NEP-2020

A National Curricular and Pedagogical Framework for Early Childhood Care and Education (NCFECCE) for children up to the age of 8 will be developed by NCERT in two parts, namely, a sub-framework for 0–3-year-olds, and a sub-framework for 3–8-year-olds, aligned with the above guidelines, the latest research on ECCE, and national and international best practices there will be an increased focus on foundational literacy and numeracy - and generally, on reading, middle school curriculum, with a robust system of continuous formative/adaptive assessment to track and thereby individualize and ensure each student's learning.

Learning plan
A look at the key features of the new education policy: • R.V.S. PRASAD

SCHOOL EDUCATION

- Universalisation from age 3 to Class 10 by 2030
- Mission to ensure literacy and numeracy skills by 2025
- Mother tongue as medium of instruction till Class 5 wherever possible
- New curriculum to include 21st century skills like coding and vocational integration from Class 6
- Board exams to be easier, redesigned

HIGHER EDUCATION

- New umbrella regulator for all higher education except medical, legal courses
- Flexible, holistic, multi-disciplinary UG degrees of 3-4 years' duration
- 1 to 2 year PG programmes, no M.Phil
- College affiliation system to be phased out in 15 years

• Public spending on education by States, Centre to be raised to 6% of GDP

• Ministry of Human Resource Development to be renamed Ministry of Education

• Separate technology unit to develop digital education resources

2- SCHOOLING EDUCATION EARLY CHILDHOOD EDUCATION

All Levels of schooling from pre-primary school to Grade 12 NEP 2020 aims to achieve 100% Gross Enrolment Ratio in school education by 2030. The initiatives that will be undertaken for this include provision of effective and sufficient infrastructure, alternative and innovative education centres to ensure that children who are dropping out of school are brought back into mainstream education, universal participation in school by carefully tracking students and motivation, as well as their learning levels. Counsellors or well-trained social workers connected to schools/college complexes and teachers will continuously work with students and their parents to ensure that all school-age children are attending and learning in school.

NEP 2020 emphasises on the criticality of the early years to ensure quality early childhood care and education for all children between 3-6 years by 2025. The children in the ages of 3-5 will be catered to by the current system of Anganwadi s and pre-schools, and age 5-6 will be included with the schooling system in a seamless integrated manner, with a play-way based curriculum to be prepared by the NCERT. A National Curricular and Pedagogical Framework for Early Childhood Care and Education for children up to the age of 8 will be developed by NCERT. The planning and implementation of early childhood education will be carried out jointly by the Ministries of HRD, Women and Child Development (WCD), Health and Family Welfare (HFW), and Tribal Affairs.

Children are unable to learn optimally when they are undernourished or unwell. Hence, the nutrition and health (including mental health) of children will be addressed, through healthy meals and the introduction of well-trained social workers, counsellors, and community involvement into the schooling system. Furthermore, research shows that the morning hours after a nutritious breakfast can be particularly productive for the study of cognitively more demanding subjects, and hence these hours may be leveraged by providing a simple but energizing breakfast in addition to midday meals. In locations where hot meals are not possible, a simple but nutritious meal, or local fruits may be provided and quality of food should be good which provide nutritious. All school children shall undergo regular health check-ups, especially for 100% immunization in schools and health cards will be issued to school monitor the same.

To overall initiatives will be undertaken to bring children who have dropped out back to school and to prevent further children from dropping out. The first is to provide effective and sufficient infrastructure so that all students have access to safe and engaging school education at all levels from pre-primary school to Grade 12. Besides providing regularly trained teachers at each stage, special care shall be taken to ensure that no school remains deficient in infrastructure support. The credibility of Government schools shall be re-established and this will

be attained by upgrading and enlarging the schools that already exist, building additional quality schools in areas where they do not exist, and providing safe and practical conveyances and hostels, especially for the girl children, so that all children have the opportunity to attend a quality school and learn at the appropriate level. Alternative and innovative education canters will be put in place in cooperation with civil society to ensure that children of migrant laborers and other children who are dropping out of school due to various circumstances are brought back into mainstream education.

The second is to achieve universal participation in school by carefully tracking students, as well as their learning levels, to ensure that they (a) are enrolled in and attending school, and (b) have suitable opportunities to catch up and re-enter school in case they have fallen behind or dropped out. For providing equitable and quality education from the Foundational Stage through Grade 12 to all children up to the age of 18, suitable facilitating systems shall be put in place. Counsellors or well-trained social workers connected to schools/school complexes and teachers will continuously work with students and their parents and will travel through and engage with communities to ensure that all school-age children are attending and learning in school.

A new and comprehensive National Curricular Framework for School Education, NCFSE 2020-21, will be developed by the NCERT. The High-quality textbook materials will be developed by NCERT and SCERTs. States will prepare their own curriculum and prepare textbooks incorporating state flavour and material. The availability of textbooks in all regional languages will be a top priority. Reducing the weight of school bags and textbooks will also be ensured by suitable changes in curriculum load.

This curriculum will aim for holistic development of learners, equipping them with main key 21st century skills, reduction in curricular content to enhance essential learning and critical thinking and greater focus on experiential learning. Students will have increased flexibility and choice of subjects so that they choose their own paths according to their talents and interests. There will be no rigid separations between arts and sciences, between curricular and extra-curricular activities, between vocational and academic streams. The objective is to give equal emphasis on all subjects-science, social sciences, art, languages, sports, mathematics - with integration of vocational and academic streams in school.

3- MORDEN EQUITABLE AND INCLUSIVE EDUCATION IN NEP 2020

NEP 2020 aims to ensure that no child loses any opportunity to learn and excel because of the circumstances of birth or background but we have not forget that our is not to prove only degree but we have to focused on giving more knowledge about the relevant subject.. Special emphasis will be given on Socially and Economically Disadvantaged Groups which include: gender identities socio-cultural identities such as

Scheduled Castes, Scheduled Tribes, OBCs, and minorities, geographical identities such as students from villages, small towns, and aspirational districts, disabilities including learning disabilities, and socio-economic conditions such as migrant communities, low income households, children in vulnerable situations, victims of or children of victims of trafficking, orphans including child beggars in urban areas, and the urban poor.

A separate Gender Inclusion fund will be created as also Special Education Zones for disadvantaged regions and groups. Children with disabilities will be enabled to fully participate in the regular schooling process from the foundational stage to higher education. Recruitment of special educators with cross-disability training, and establishment of resource centres, wherever needed, especially for children with severe or multiple disabilities will be supported. Schools and school complexes will be supported for providing all children with disabilities accommodations and support mechanisms tailored to suit their needs and to ensure their full participation in the classroom. Assistive devices and appropriate technology-based tools, will be made available to help children with disabilities integrate more easily into classrooms and engage with teachers and their peers.

4- TEACHER RECRUITMENT AND CAREER IN EDUCATION FIELD

Teacher should be recruited according his experience assessment grading system should apply for recruitment of the the teachers. As well appointment of the thatcher the government look the research capability of the teachers and also look how much they have capabilities to explain the subject to student as practical aspect. Including tenure, professional development efforts, salary increases, promotions, and other recognitions. The professional standards will be reviewed and revised in 2030, and thereafter every ten years. School Governance: Schools can be organized into school complexes or clusters which will be the basic unit of governance and administration that will ensure availability of all resources including infrastructure, like academic libraries and human resources e.g. art and music teachers along with a strong professional teacher community. Standard of setting and Accreditation for School Education Regulation and operations of schools will be carried out by separate bodies to eliminate conflicts of interest. It is envisaged to have clear, separate systems for policy making, regulation, operations and academic matters. To ensure that all schools follow certain minimal professional and quality standards, States/UTs will set up.

Public and private schools will be assessed and accredited on the same criteria, benchmarks, and processes, emphasizing online and offline public disclosure and transparency, so as to ensure that public-spirited private schools are encouraged. Vocational Education to 2025, at least 50% of learners through the school and higher education system shall have exposure to vocational education. Beginning with vocational exposure at early

ages in middle and secondary school, quality vocational education will be integrated smoothly into higher education. Vocational education will be integrated in the educational offerings of all secondary schools in a phased manner over the next decade. Towards this, secondary schools will also collaborate with ITIs, polytechnics, local industry, etc. Every child to learn at least one vocation and exposed to several more. A 10-day bagless period sometime during Grades 6-8 to intern with local vocational experts such as carpenters, gardeners, potters, artists, etc. Similar internship opportunities to learn vocational subjects to students throughout Grades 6-12, including holiday periods. Vocational courses through online mode will also be made available.

5- HIGHER EDUCATION IN HOLISTIC MULTIDISCIPLINARY EDUCATION

Increase GER in higher education to reach at least 50% by 2035. The aim will be to increase the Gross Enrolment Ratio in higher education including vocational education from 26.3% (2018) to 50% by 2035.

The policy envisages a broad-based multi-disciplinary holistic education at the undergraduate level for integrated, rigorous exposure to science, arts, humanities, mathematics and professional fields having imaginative and flexible curricular structures, creative combinations of study, integration of vocational education and multiple entry/exit points. A holistic and multidisciplinary education will help develop well-rounded individuals who possess critical 21st century capacities in fields across the arts, humanities, languages, sciences, social sciences, and professional, technical, and vocational fields; an ethic of social engagement; soft skills, such as communication, discussion and debate; and rigorous specialization in a chosen field or fields. Such a holistic education shall be, in the long term, the approach of all undergraduate programmes, including those in professional, technical, and vocational disciplines.

The undergraduate degree will be of either 3 or 4-year duration, with multiple exit options within this period, with appropriate certifications- a certificate after completing 1 year in a discipline or field including vocational and professional areas, or a diploma after 2 years of study, or a Bachelor's degree after a 3-year programme. The 4-year multidisciplinary Bachelor's programme shall be the preferred option since it allows the opportunity to experience the full range of holistic and multidisciplinary education in addition to a focus on the chosen major and minors as per the choices of the student.

An Academic Bank of Credit (ABC) shall be established which would digitally store the academic credits earned from various recognized HEIs so that the degrees from an HEI can be awarded taking into account credits earned. Model public universities for holistic and multidisciplinary education, Multidisciplinary Education and Research Universities will be set up and will aim to attain the highest standards for multidisciplinary education across India.

A number of initiatives will be taken to ensure optimal learning environments are created that are engaging and supportive, and enable all students to succeed. All institutions and faculty will have the autonomy to innovate on matters of curriculum, pedagogy, and assessment within a broad framework of higher education qualifications that ensures consistency across institutions and programmes and across the ODL, online, and the traditional 'in-class' modes. He Is shall move to a criterion-based grading system that assesses student achievement based on the learning goals for each programme, and also move away from high-stakes examinations towards more continuous and

A National Mission for Mentoring shall be established, with a large pool of outstanding senior/retired faculty – including those with the ability to teach in Indian languages – who would be willing to provide short and long-term mentoring/professional support to university/college teachers.

All professional education will be an integral part of the higher education system. Stand-alone technical universities, health science universities, legal and agricultural universities, or institutions in these or other fields, will aim to become multi-disciplinary institutions.

An autonomous body, the National Educational Technology Forum will be created to provide a platform for the free exchange of ideas on the use of technology to enhance learning, assessment, planning, administration. Appropriate integration of technology into all levels of education will be done to improve classroom processes, support teacher professional development, enhance educational access for disadvantaged groups and streamline educational planning, administration and management. Technology-based education platforms, such as DIKSHA/SWAYAM, will be better integrated across school and higher education. HEIs will play an active role in conducting research on disruptive technologies and in creating instructional materials and courses including online courses in cutting-edge domains. Online Education and Digital Education is a comprehensive set of recommendations for promoting online education consequent in the recent rise in epidemics and pandemics in order to ensure preparedness with alternative modes of quality education whenever and wherever traditional and in-person modes of education are not possible, has been covered. A dedicated unit for the purpose of orchestrating the building of digital infrastructure, digital content and capacity building will be created in the MHRD to look after the e-education needs of both school and higher education.

Higher education plays an extremely important role in promoting human and societal well-being and developing India as envisioned in its Constitution - a democratic, just, sociallyconscious, cultured, and humane nation upholding liberty, equality, fraternity, and justice for all. It must enable an individual to study one or more specialized areas of interest at a deep level, and also develop character, ethical and Constitutional values, intellectual curiosity, scientific temper, creativity, the spirit of service,

and 21st-century capabilities across a range of disciplines including sciences. Some of the major problems currently faced by the higher education system in India include a severely fragmented higher educational ecosystem; less emphasis on the development of cognitive skills and learning outcomes;

This policy envisions a complete overhaul and re-energizing of the higher education system to overcome these challenges and thereby deliver high-quality higher education, with equity and inclusion. The policy's vision includes the following key changes to the current system:

- I. To moving towards a higher educational system consisting of large, multidisciplinary universities and colleges, with at least one in or near every district, and with more HEIs across India that offer a medium of instruction or programs
- II. To moving towards a more multidisciplinary undergraduate education
- III. To governance of HEIs by highly qualified independent boards having academic and administrative autonomy
- IV. To "light but tight" regulation by a single regulator for higher education
- V. To revamping curriculum, pedagogy, assessment, and student support for enhanced student experiences
- VI. To reaffirming the integrity of faculty and institutional leadership positions through merit appointments and career progression based on teaching, research, and service;
- VII. To establishment of a National Research Foundation to fund outstanding peer-reviewed research and to actively seed research in universities and colleges.

The main thrust of this policy regarding higher education is to end the fragmentation of higher education by transforming higher education institutions into large multidisciplinary universities, colleges, and HEI clusters/Knowledge Hubs, each of which will aim to have 3,000 or more students. Moving to large multidisciplinary universities and HEI clusters is thus the highest recommendation of this policy regarding the structure of higher education. . A stage-wise mechanism for granting graded autonomy to colleges, through a transparent system of graded accreditation, will be established. Colleges will be encouraged, mentored, supported, and incentivized to gradually attain the minimum benchmarks required for each level of accreditation.

The Accreditation System will develop and use appropriately different and relevant norms across this range of HEIs. However, the expectations of high-quality education, and teaching-learning, across all HEIs will be the same. By 2040, all higher education institutions (HEIs) shall aim to become multidisciplinary institutions and shall aim to have larger student enrolments preferably in the thousands, for optimal use of infrastructure and resources,

and the creation of vibrant multidisciplinary communities. The aim will be to increase the Gross Enrolment Ratio in higher education including vocational education from 26.3% (2018) to 50% by 2035. Any Institutions will have the option to run Open Distance Learning (ODL) and online programs, provided they are accredited to do so, to enhance their offerings, improve access, increase GER, and provide opportunities for lifelong learning. The most important factor in the success of higher education institutions is the quality and engagement of its faculty. Teaching duties also will not be excessive, and student-teacher ratios not be too high, so that the activity of teaching remains pleasant and there is adequate time for interaction with students, conducting research, and other university activities. In keeping with the vision of autonomous institutions empowered to drive excellence, HEIs will have clearly defined, independent, and transparent processes and criteria for faculty recruitment.

CONCLUSION & SUGGESTION:

Education is a great leveller and is the best tool for achieving economic and social mobility, inclusion, and equality. The fundamental principles that will guide both the education system at large, as well as the individual institutions within it are:

- I. There are recognizing, identifying, and fostering the unique capabilities of each student, by sensitizing teachers as well as parents to promote each student's holistic development in both academic and non-academic spheres.
- II. There is flexibility, so that learners can choose their learning trajectories and programs, and thereby choose their paths in life according to their talents and interests
- III. There are multidisciplinary and a holistic education across the sciences, social sciences, arts, humanities, and sports for a multidisciplinary world to ensure the unity and integrity of all knowledge
- IV. There is emphasis on conceptual understanding rather than rote learning and learning-for-exams
- V. There are ethics and human & Constitutional values like empathy, respect for others, cleanliness, courtesy, and democratic spirit synergy in curriculum across all levels of education from early childhood care and education to school education to higher education.
- VI. Moral educational must be important. from basic education to education higher education. Our

Indian scriptures teach us moral value there for slogans and text of Geeta and Ramayana must include in new education \policy.

This Education Policy lays particular emphasis on the development of the creative potential of each new education policy must help recruit the very best and brightest to enter the teaching profession at all levels, by ensuring livelihood, respect, dignity, and autonomy, while also instilling in the system basic methods of quality control and accountability. This new education policy must be provided to all students, irrespective of their place of residence, a quality education system, with particular focus on historically marginalized, disadvantaged, and underrepresented groups.

REFERENCES

1. Kumar, K. (2005). Quality of Education at the Beginning of the 21st Century: Lessons from India. Indian Educational Review.
2. Draft National Education Policy 2019.
3. Aithal, P. S. & Aithal, Shubhrajyotsna (2019). Analysis of Higher Education in Indian National Education Policy Proposal 2019 and its Implementation Challenges. International Journal of Applied Engineering and Management.
4. Aithal, P. S. (2016). Student Centric Curriculum Design and Implementation - Challenges & Opportunities in Business Management & IT Education. IRA International Journal of Education and Multidisciplinary Studies.
5. Shubrajyotsna Aithal & Aithal, P. S., (2016). Student Centric Learning Through Planned Hardwork - An Innovative Model. International Journal of Scientific Research and Modern Education (IJSRME).
6. Singh, J. D. (2011). Higher education in India-Issues, challenges and suggestions. Higher education, 93-103, ISBN: 978-3-8465-1753-6.



ADOPTING AEROTROPOLIS MODEL FOR URBAN DEVELOPMENT: A CASE STUDY OF NAVI MUMBAI INTERNATIONAL AIRPORT

GANDHARVA PEDNEKAR

RESEARCH ASSOCIATE, TATA INSTITUTE OF SOCIAL SCIENCES, MUMBAI.

ABSTRACT:

Gandharva Pednekar is Research Associate and Teaching Assistant at the School of Development Studies, Tata Institute of Social Sciences, Mumbai and a Visiting Faculty at AIBAS, Amity University. He holds postgraduate degrees in Geography, Population Studies and Development Administration and M.Phil. in Development Studies. He has recently submitted his Ph.D. thesis in Development Studies on the topic 'Impact of developmental projects on urban fringe areas'. His broad fields of interest are Corporate Social Responsibility, Resettlement and Rehabilitation, Urban Geography, Population and Development and Research Methodology. He has been associated with TISS since 2007 as a member of the research staff. He has been instrumental in completing more than thirty projects at TISS. He has to his credit publications on the topics like urbanization, environment, geography, forest conservation and ageing. He is member, Board of Studies, Ramniranjan Jhunjhunwala College, Ghatkopar for the subjects Geography and Environmental Studies for the period 2018-2021. He is also associated with Yusuf Meherally Centre, Utkarsh Sanstha and The Family Welfare Agency as a social research consultant.

KEYWORDS:

URBANIZATION, TRANSPORT NETWORKS, DEVELOPMENT PROJECTS, URBAN PLANNING, DISPLACEMENT.

INTRODUCTION

The necessity to transport people and things from one location to another, which is currently the precursor of the globalised society we live in, has made airports unquestionably the driving tools of the twenty-first century. In order to meet the demand for tourist, maintain the social, political, and economic linkages across countries, and preserve the existing market demand and supply, air transportation is crucial. The same has changed airports into the versatile commercial and transportation centres. Professor John Kasarda, Director of the University of North Carolina's Centre for Air Commerce, is the author of the term "Aerotropolis." According to Kasarda, airports are the fifth wave of transit-oriented development that is reshaping major cities in a similar way as earlier urban clusters. The idealised definition of an Aerotropolis, as shown in the figure, is a sub-regional economy in which the Airport city serves as a catalyst for economic growth associated with a concentrically expanding mix of clustered uses, including office and warehousing, residential housing, retail stores, commercial real estate, as well as time-efficient logistics, industrial development, and manufacturing activities, among others. In addition to serving as a hub for air transportation, airports also offer a variety of commercial and recreational amenities. Good airline service, in the words of Professor John Kasarda, "is a vital determinant for quick and structured urban economic development." In the new age of urbanisation, airports will define commercial locations and give direction to urban growth, just as expressways did in the 20th century, railroads did in the 19th century, and seaports did in the 18th century. The urban and peri-urban economies are significantly impacted by the airport's

development. Airports are becoming into airport cities, and by giving individuals from all walks of life access to employment possibilities, as well as significantly influencing the local and regional economies (Kasarda,2011).

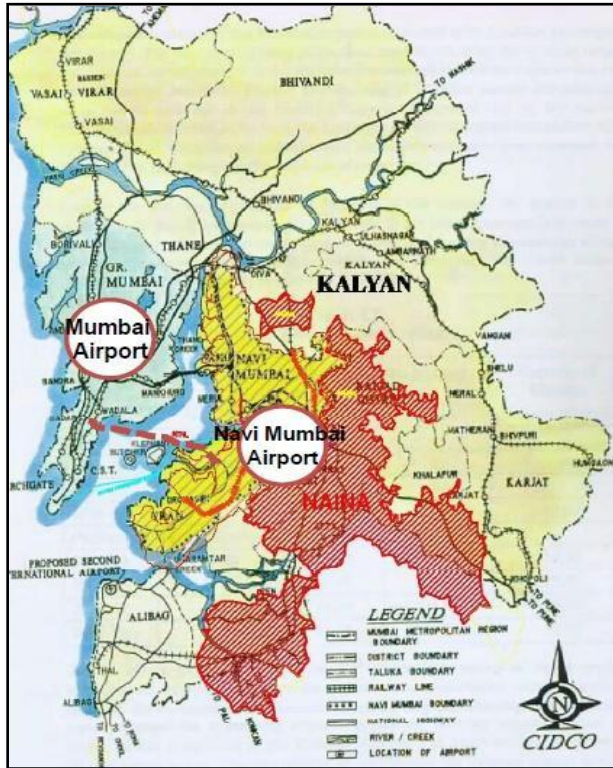
NAVI MUMBAI INTERNATIONAL AIRPORT (NMIA)

The Mumbai Metropolitan Region (MMR), which includes Mumbai, Kalyan, Vasai-Virar, Navi Mumbai and Thane, has a total coverage of 4355 square kilometres. According to the 2011 census, the region's population was over 21 million; by 2022, that number is projected to reach over 30 million. Mumbai's metropolitan area has experienced substantial economic expansion as India's financial capital. The change from conventional manufacturing to trading and service industries has been a major factor in the economy's growth over time.

The current airport, Chhatrapati Shivaji Maharaj International Airport (Mumbai Airport), located in Sahar-Santacruz, Mumbai, is unable to meet the expanding needs of business and service operations for both local and foreign travellers. To build a larger airport at the same site would require expansion at the current location and the huge capital investment. By 2030–2031, the MMR region is expected to have a demand for aviation of 100 million passengers annually (MPAA). According to CIDCO, Mumbai Airport will be able to accommodate 40 MPAA, while remaining 60 MPAA can be accommodated by the proposed Navi Mumbai International Airport. South and Central Mumbai would have easy access to the proposed airport thanks to the Mumbai Trans Harbour Link (MTHL), which will run from Sewri in Mumbai to Chirner in Navi

Mumbai. MMR and its surrounding territories are anticipated to make up the majority of the NMIA's potential catchment area.

FIGURE 1
LOCATION OF NMIA



Source: CIDCO,2015

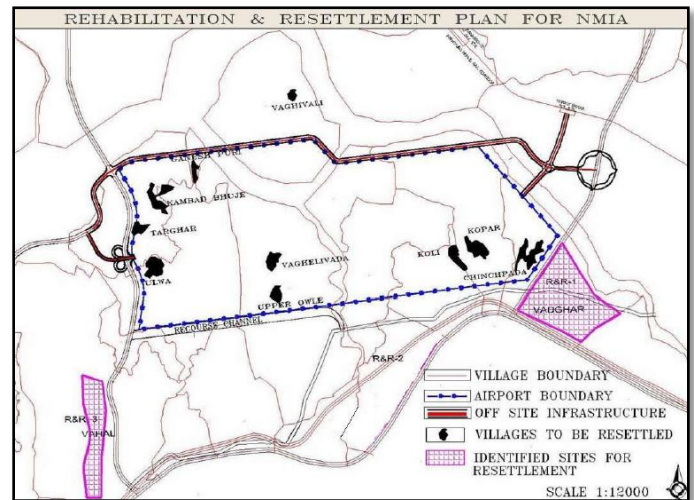
In the upcoming years, it is unlikely that the strain on Mumbai Airport would lessen, since there are very few foreign flights at Pune and Nagpur Airports, which are the other two international airports in the state of Maharashtra. As a result, the NMIA is anticipated to see considerable passenger traffic, which will improve the area's growth potential. Public-private partnerships (PPP) are being used to construct the airport. The airport's spread is 9.5 km² (3.7 sq mi) in size, with two parallel runways that can operate simultaneously and separately, as well as full-length taxiways on either side of the runways. The new large aircraft that are compliant with airport code 4-F can be accommodated on the airfield. According to CIDCO, the new airport was suppose to handle 10 million passengers annually in its first phase (by the end of 2014), 25 million by 2020, 45 million by 2025, and 60 million by 2030. The airport will cover 1,405 ha in total (3,470 acres). The Aamra Marg will offer access from the west, while National Highway 4B will be the primary road providing access from the east to the airport. The new airport will be accessible by 10-lane approach road leading to its terminal building (CIDCO,2014).

REHABILITATION AND RESETTLEMENT OF PAPS OF NMIA

Although CIDCO already owned the majority of the land

needed for the project, 10 villages— Ganeshpuri, Vaghivali, Kopar, Chinchpada, Ulwe, Vaghivali-Vada, Kombadbhuje, Upper Owale, Kolhi, and Targhar—had to be relocated. Around 3500 homes, small businesses, and other structures near the airport were impacted by the relocation process. The villages of Vadghar, Dapoli, and Vahal are close to the identified relocation areas. The PAPS have approved CIDCO's R&R Policy, which is consistent with current Central and Maharashtra Government policies. Each PAP will receive 12.5 percent developed land as per the previous arrangement from CIDCO and 10 percent additional land in lieu of compensation from the company. Pushpaknagar is being developed as the relocation site and allocations have already begun for some village.

FIGURE 2
REHABILITATION AND RESETTLEMENT SITES FOR NMIA PAPS



Source: CIDCO, 2014

The additional provisions for rehabilitation include 100 shares of NMIA at a price of Rs. 10 per share, contracts during construction, industrial training for youth, Rs. 1000 per sq. ft. as the cost of building a new home, and one-time monetary compensation for loss of livelihood. In addition, CIDCO will offer social services such crematoriums, bus stops, community centres, banks, post offices, playgrounds, schools, and Gram Panchyat offices at the relocation site.

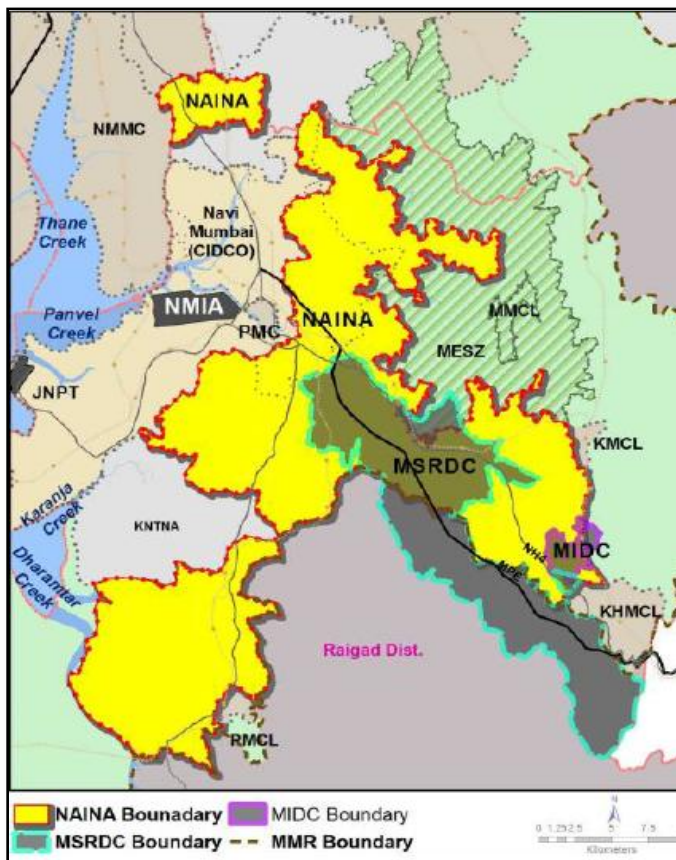
NAVI MUMBAI AIRPORT INFLUENCE AREAS (NAINA)

The Environmental and Coastal Regulatory Zone (CRZ) approval for the construction of the Navi Mumbai International Airport was issues in the year 2010 by the Ministry of Environment & Forest (MoEF), Government of India. The Master Development Plan for the Navi Mumbai region needed to be revised in light of the planned Airport development, which was one of the requirements the Ministry had set forth. The goal was to prevent unanticipated growth in the vicinity of the future airport. As a result, CIDCO took the initiative to create its Action Plan for environmental protection and sound urban

planning, which will aid in the sustainable development of the proposed airport's Influence Zone. To determine the airport's impact area, a variety of elements were taken into account, including geography, transportation, Airport Authority of India (AAI) regulations, the existence of the Matheran Eco-Sensitive Zone, and MMRDA plans. As part of the sub-area development, CIDCO has chosen the concept of an aerotropolis, indicating that the development will be focused on an airport.

According to CIDCO's estimations, the Influence Zone may be thought of as extending outward around 25 kilometres from the proposed airport. As a result, the Navi Mumbai Airport Influence Areas (NAINA) development plan took shape. Due to its proximity to the airport—25 kilometres radially—the chosen region fits the bulk of the criteria. It has adequate connections but no planning authority or special planning authority (SPA). Reviewing current and future land uses was a part of the Influence Zone (IZ) planning process. CIDCO was already working on creating a thorough transportation system for NMIA. It extended its planning to create an Action Plan and Development Plan for NAINA in order to decrease travel times and traffic. In order to create a transportation network and select priority locations for the development and regulation of the Influence Zone, the strategy seeks to identify airport routes with a greater potential for influence (CIDCO,2014).

**FIGURE 3
COVERAGE OF NAINA**



Source: CIDCO, 2014

**CHANGES IN APPROACH TO DEVELOPMENT:
SHIFT FROM NAINA SCHEME TO TOWN PLANNING
SCHEME**

A shift from 'NAINA Scheme-a voluntary approach' to 'NAINA Town Planning Scheme - an act to Land Pooling' was necessitated due to the delayed implementation of the NAINA scheme. The Town Planning Scheme (TPS) is considered one of the best tools of Urban Land Management to get serviced land with infrastructure and amenities in urban fringe areas, which are likely to grow haphazardly. The town planning scheme is a joint land development project undertaken by the owners. The planning authority stepped in as an agent on behalf of the owners. It provides for smooth vesting of lands to planning authorities for public purposes. The Lands in the scheme are pooled and reconstituted according to equitable formula. Procedures of TPS through MR and TP Act, 1966 and MR and TP Rules, 1974 are broadly divided into four stages — Declaration stage, Owners' Meet Stage, Sanctioning of Draft Scheme, Appointment of Arbitrator and its Role.

Small land owners demanded CIDCO initiate the scheme as they were short of funds and lacked technical know-how and belief in a person taking the lead for aggregation among themselves. Due to internal clashes, they could not come together, which led to CIDCO receiving sporadic proposals for the NAINA scheme. Developers stuck in the process of aggregation, aggregation of oddly shaped plots resulting in non-functional planning, difficulty in getting authorized access to land-related documents, small landowners not receiving consent from all co-owners and non-development of linear infrastructure because of sporadic schemes. Accordingly, CIDCO launched TPS-1 of 19.11 hectares in August 2017, which got its preliminary sanction by the Government in September, 2019, TPS-2 sanctioned in November, 2021. There are a total of 11 TPS in IDP area.

Thus, it may be noticed that by learning from the issues faced during the land acquisition of the Navi Mumbai Project, CIDCO has sought to deal with the PAPs more cautiously. On the one hand, it has carried out bulk land acquisition, i.e., NMIA project, which offers developed land to PAPs, which they can develop themselves or sell to a developer, instead of monetary compensation for land. On the other hand, it is notified that the area is under NAINA but will not be carrying out bulk land acquisition, as the lands will be acquired as and when the need arises by partnering with the PAPs.

CONCLUSION

Land is the most important asset in urban fringe, irrespective of its productivity, its mere possession ensures security of livelihood. This was highly evident through the issues of PAPs of Navi Mumbai project, as the value of land resources is so great that PAPs who have sold their land in exchange for generous financial benefits are now finding it difficult to make ends meet. Amongst the villages situated in IDP area of NAINA project, the

immediate urban fringe villages, like Palidevad, Vichumbe, Devad, and Kolkhe, are facing dwindling of natural resource i.e., land due to urban influences, leading to severe stress on the daily life. In order to cope with this change, households, especially the landless and economically weaker sections, look for work in the urban sector, but due to their low levels of technical and educational capabilities, they hardly make it past the surviving stage of the livelihood ladder. Due to the high land rent in this area, the some of the landowners have accumulated wealth. Despite being close to the city, immediate urban fringe households were generally found on a lower rung of the income ladder. This implies that the urban fringe households cannot currently benefit from the urban commercialised economy.

Although the research on the rural-urban edge is expanding, its dynamic character makes it difficult to define and delineate. This is largely because to variations in location and circumstance, which lead to various forms of urbanisation processes and their ensuing effects on the urban fringe. The present research viewed the urban fringe as a transitional area where activities from the rural and urban area collide. The urban fringe is an area undergoing transition rather than having a clear boundary, and change itself plays an important role here.

The growth and extension of urban areas have a significant socioeconomic and physical impact on the natural resources and population of fringe rural villages. Those who are the original inhabitants and those who have migrated to the urban fringe, both of these categories of community members, face the effects of urbanization in varying degrees. Their capacity to adapt in order to survive is a vital aspect of urban fringe livelihood. Urban fringe livelihoods have the characteristic of changing over time and adapting to changing conditions. This is a continuous process that is not static but changes from one season or year to the next. The ability to access available resources, activities, and opportunities may change

seasonally and throughout the year, which can cause the resources to be built up, deteriorated, or instantly destroyed. Also, in general sense, an aerotropolis model of development is planned in a concentric circular manner, whereas the planning of NAINA region is fragmented.

The urban fringe of Navi Mumbai has undergone a noticeable modernization and economic activity shift during the past two decades. The previously dominant agricultural practises are coming under more and more strain, and new opportunities for market-oriented agriculture are opening up. There were significant variations observed in the opportunities and resources available, which led to new forms of livelihood. Due to their proximity to the growing aerotropolis, the urban fringe households have more alternatives for non-agricultural jobs. Urban infrastructure's pull factor and expanded employment prospects are drawing migrants from all around the country to Navi Mumbai region. The number of inter-linkages between rural-urban areas have grown dramatically, and the village economy in the NAINA region is now entwined with that of the expanding city of Navi Mumbai and Mumbai Metropolitan Region.

REFERENCES

1. Kasarda, J. D. (2011). *AEROTROPOLIS - The Way We'll Live Next*. New York: Farrar, Straus and Giroux
2. CIDCO. (2014). Interim Draft Development Plan. NAINA. Belapur: CIDCO
3. CIDCO. (2015). *Draft Development Plan for Navi Mumbai Airport Influence Area (NAINA)*. Belapur: CIDCO.



DOES BRANDING HELPS IN SUSTAINING THE BUSINESS DURING CRISES? : A VIEW POINT ON INDIAN HOTEL INDUSTRY

MR. MAHESH KUMAR BAIRWA

RESEARCH SCHOLAR, DEPARTMENT OF MANAGEMENT STUDIES, JAI NARAIN VYAS UNIVERSITY, JODHPUR (RAJASTHAN) & LECTURER, STATE INSTITUTE OF HOTEL MANAGEMENT, JODHPUR (RAJASTHAN), INDIA 342001.

DR. SWAPNA PATAWARI

PROFESSOR & HEAD, DEPARTMENT OF MANAGEMENT STUDIES, JAI NARAIN VYAS UNIVERSITY, JODHPUR (RAJASTHAN)

MRS. RAJNI KUMARI

ASST. LECTURER, STATE INSTITUTE OF HOTEL MANAGEMENT, JODHPUR (RAJASTHAN), INDIA 342001.

ABSTRACT:

Purpose: This article presents a view point over the Indian hotels branding and its significant role during the pandemic covid-19 for the survival and sustaining during the unprecedented time. Specifically two hotel chain viz. Taj group of hotels and Oberoi group of hotels has been taken in consideration for their strategies for survival, sustaining and further flourishing in and after covid-19 pandemic. Also, the SOPs designed by the various international chain hotels during pandemic have been taken in consideration in view of safety and security of guest and their customer.

Design/methodology/approach: Authors has tried to create a view point over the Indian hotel industry, role and impact of brand management, strategies and SOPs formulated by the chain hotels during pandemic crisis etc. through systematic reference of studies conducted in the last decade and presented in view point.

Findings: Indian Hotel Industry has seen a substantial growth in the last couple of decades, many international brands has shown their presence in the Indian market through franchises and doing better business respectively. However, due to an unprecedented situation of covid-19, most of the hotels are struggling for their survival and even breakeven points. This article focuses on standard operating procedures, protocols etc. followed by the hotels to create a strategically image of utmost clean, aesthetically hygiene and full proof safety for the guest and staff. Also given overview over the strategies implemented by Taj and Oberoi group of hotels for sustaining and standing ever firmer during and after pandemic crisis.

Managerial and practical implications: This article will possibly add the knowledge of the strategies, SOPs etc. to the managers, stakeholders and other bodies to know and formulate the further strategies in the time line for betterment of business and their survival during crisis period.

Research Approach: Conceptual and review with viewpoint

KEYWORDS:

TOURISM AND HOSPITALITY INDUSTRY, COVID-19, BRAND MANAGEMENT, SUSTAINABLE DEVELOPMENT, TAJ HOTELS, OBEROI HOTELS.

1. INTRODUCTION

The Indian hospitality and tourism industry has emerged as one of the key contributors to growth in the various services sector in India. Tourism in the country has significant potential considering its rich cultural and historical heritage, diversity in ecology, terrains, and attractions of natural beauty spread across the nation. From an economic point of view, tourism is an important source of foreign exchange. However, due to the pandemic, it got a dip compared to its growth of 7% from 2016 to 2019 (IBEF, 2020). In the last financial year, the tourism and hospitality sector accounted for 39 million jobs, which was 8.0% of the total employment in the country. Further as per the expectations by economists, by 2029, it is expected to account for about 53 million jobs (IBEF, 2020).

Furthermore, according to WTTC, India ranked 10th among 185 countries in terms of travel & tourism's total contribution to GDP in 2019. During the year 2019, the contribution of travel & tourism to GDP was 6.8% of the total economy which equals US\$ 194.30 billion (WTTC, 2020). As per the report by IBEF (2020), the Indian hotel market was estimated at about US\$ 32 billion in FY20 including domestic, inbound, and outbound tourists, and further, it is expected to reach more than US\$ 52 billion by FY27, this surge in demand would be through travel agents and travelers to make sustained efforts. Moreover, In April 2021, the percentage share of FTAs was highest from United States (26.85%), followed by Bangladesh (15.65%), UK (5.87%), Afghanistan (6.92%), Nepal (4.59%), Canada

(4.27%), Iraq (2.99%), Portugal (2.40%), Germany (1.42%), Russian (1.41%), Maldives (1.39%), France (1.33%), Sudan (1.21%), Korea (1.18%), and Australia (1.02%) etc (IBEF, 2020).

1.1 INDIAN HOTEL INDUSTRY

The foundation of the hotel industry in India cannot be drawn to a definitive point of time. However, the origin of hospitality can be seen through the time of the Indus Valley Civilization and the Vedic Era. In the past days, traveling was predominantly undertaken for trade and pilgrimage. In Hindu mythology, people traveled to visit the various shrines for the sake of faith and the trade of their business (Devendra, A. (2001). The origin and evolution of the hotel industry in the country can be broadly categorized into three phase's viz. Ancient and Medieval Era, Colonial Era and Modern Era. The real development of the hotels can be seen in the colonial era, where hotels were mostly established and operated by the colonial rulers to cater to the need of the British and other foreign officials. During the period, western-styled luxurious hotels made a presence in the major cities like Mumbai, Calcutta (now Kolkata), Goa, etc. which subsidized the ancient inns and taverns. Some of the famous hotels were MacLean's Hotel, Victory Hotel, Mac Farlanes Hotels, Albion Hotel, etc. in the 18th century (Pal, 2015). The major hotels and chain hotels established in the 19th & 20th centuries like the Taj group of hotels, ITC, Oberoi, etc. The Taj group of hotels is a renowned brand having a presence in 12 countries. Similarly, Oberoi hotels have a presence in six counties including India with luxurious hotels in the world (Varma, 2009). The major hotel brands operating in India (in terms of the revenue) are The Indian Hotels Company Limited (IHC, including brand Ginger), Marriott International, Oberoi Hotels & Resorts, Radisson Hotel Group, ITC Hotels, Accor Hotels, Hyatt Hotels, Sarovar Hotels, Intercontinental Hotels Group, and Lemon Tree Hotels (statista, 2019). An estimate of 65,000 to 80,000 rooms by 850 properties of foreign hotel chains are expected to be added in Indian Room inventory as per market research agency ICRA (Gosh, 2012). Furthermore, by the WTTC's Economic Impact 2019 - Indian Travel & tourism sector is the third-highest GDP contributor followed by China and the Philippines. International hotel chains are showing their interest by investing around 47% share in 2020 and 50% share by the year 2022 in the Indian tourism and hospitality sector (IBEF, 2021). Around 39 million jobs were created in the tourism sector for FY 2020, which was around 8.0% of the total employment (IBEF, 2021). It is also forecasted that the hotel industry in India is expected to reach a value of ₹ 1,210.87 billion by the end of 2023 (statista, 2019).

1.2 HOTEL BRANDING AND COVID-19 PANDEMIC CRISES

As per the definition by American Marketing Association (AMA), a brand is a name, term, symbol, design or any other feature that identifies one seller's goods/products or

service distinctive from the other seller in the market. Similarly, hotel brands can permeate distinctive meanings to their customers or guest. These meanings and distinctive self-experiencing features create a relationship between the brand and customers (Rai & Nayak, 2019 p22). Further, hospitality is unspoken inward experiences and emotions of customers/guests to play an important role in decision making (Rai & Nayak, 2019 p23). Brands or brand images create unique experiences in the mind of the customers that serve as the primary basis for the brand preference (Brakus et al., 2009). While, (Schmitt, 1999) proposed in his study that customers of the twenty-first century are emotional as well as rational decision-makers where emotions can be created through unique brand experiences and benefits. In the purchase preference, customer and brand carry a two-way relationship, and the values are co-created (Fournier 1998). However, during the pandemic covid-19 crisis preference of the customers or guests was highly transformed due to uncertain situations and government and local bodies' regulations.

Many scholars have raised the issue of the ongoing pandemic COVID-19 and claim that the evolution and emergence of corona virus disease (Covid-19) are from China's Wuhan City, later it spread across the globe and has impacted socially, economically, and politically the lives and businesses of the mass. According to Laws & Prideaux (2005), a crisis is an incident that suddenly becomes apparent in a critical situation. The impact of the crises adversely affected the crowded or densely populated areas. Leung & Lam (2004) states that the hospitality industry involves a large number of customers and employees from various demographics and has higher exposure to both national and international places, which considerably increases the impending exposure and spreading of infections. However, the COVID-19 pandemic is an ongoing crisis and only a few previous studies have focused on the impact of public health crises on the hospitality industry, as most research has focused on economic rather than public health crises (Mair et al., 2014; Jian et al., 2017).

This research is focused on examining the role of branding which would have helped in sustaining the hotel industry businesses during covid-19 pandemic crises. This study majorly tried to distinguish the inclination of customer towards the brand hotels rather to choose small, independent and uncategorized hotels. The standard operating procedures, corporate social responsibility and other such factors has been taken in to consideration to conduct the study.

2. LITERATURE REVIEW

Branding hotel portfolio, by Connel, J. (1992), highlights on definition, problems of hotel branding, asses the differential brand marketing of UK and US and other countries. Author suggests that physical consistency is important for hotel branding. Further, the factors like service range, price and location are strategic points which provide an advantage for the companies, brand attributes

should be based on the needs of target market segment.

A study by Nayak & Rai, (2019) on Hospitality branding in emerging economies: an Indian Perspective, tried to test the applicability of brand interaction and perceived quality theory in the formulation of brand's trust and effective commitment in context with Indian hospitality industry. Further, authors conclude that effective commitment is associated with brand trust and lead to advocacy of hospitality brand i.e. through word of mouth interaction and revisit. Moreover, authors stressed on self brand connection helps in individual to identify a respective organization (Nayak& Rai, 2019, p30).

Kumar, A. (2020), on "Disastrous impact on Corona virus (Covid-19) on tourism and hospitality in India", stated that individuals and business to act upon the situation wisely and with paramount precaution, the impacts such as life style change, socio-psychological, economical implication, increasing use of social media, risk assessment etc. are to be taken in consideration, however correct assessment of situation is hard to find out because the crisis is still persistent.

Guo, L. et, al., (2021), highlights the findings of various studies in the literature review under the challenges and opportunities of Covid-19 for hotel industry. The study by Hall et. al., (2020), that owing to norms of social distancing travel restrictions and border closure, hospitality industry will be severely affected by covid-19 pandemic, due to loss of customers, uncertainty and unknown duration of impact (Gossling et, al., 2021), this pandemic will pose unprecedented challenges to hotel industry. The impact of crisis has eventually affected market and performance of hotels (Hao et. al., 2020). Government led regulations and shortage of operating expenses has led to close or shutdown operations by many individual or small hotel operations, subsequently, anxiety and fear among the travelers, perception of customer has played an important role in decision making during this crisis. In a nut shell, it can be said that customer's risk perception and behavior has changed (Li, et al., 2020) because during the pandemic the main concern of the traveler or customer has become health, safety and budget making decision for travelling (Pappas & Glypton, 2021). Although, covid-19 has brought some transformative opportunities and challenges too (Brier, et, al., 2021).

Over to crisis management framework adoption for tackling the adverse situation of covid-19 pandemic, the theories and frameworks suggested in studies by various scholars falls short. As such no similar situation has been perceived yet (Reddy. et al., 2020). However, existing studies may provide us guidance in framework of crisis management.

4. THE PROBLEM STATEMENT

The Covid-19 pandemic crises come faster of all the time. Initially in first two quarters of 2020, hospitality and catering has seen the global shutdown for the fine dining and accommodation inventories. However, later after the first quarter of 2021, hotel and catering business tried to revive, recoup and revamp with the systematic strategies to bring back the confidence of travelers though brand value by offering services with high standards of hygiene, sanitation and safety procurements. The major objectives of the study are:

1. To examining the role of branding which would have helped in sustaining the hotel industry businesses during covid-19 pandemic crises.
2. To assess the factors for inclination of customer towards the brand hotels rather to choose small, independent and uncategorized hotels.
3. To assess the strategies of 'Taj Group of Hotels' & 'Oberoi Group of Hotels' during Covid-19 for sustaining their brand.

5. RESEARCH METHODOLOGY

This study is based on the secondary data collected from high impact journals, magazines, articles, books, reports and e-resource. A view point is created to understand the role of branding for the sustenance of hotels chains in this hard hit pandemic covid-19.

6. DISCUSSIONS

The hospitality business has severely affected by the corona pandemic (Covid-19). Covid-19 pandemic has been most devastating and made the tourism and hospitality business to shattered. The crisis has not only affected the industry's economic stability but it also affected the purchase preferences of the customers. The below mentioned figure: 1, depicts that crisis can be revoked or recovered by the formulating the strategies of brand management.

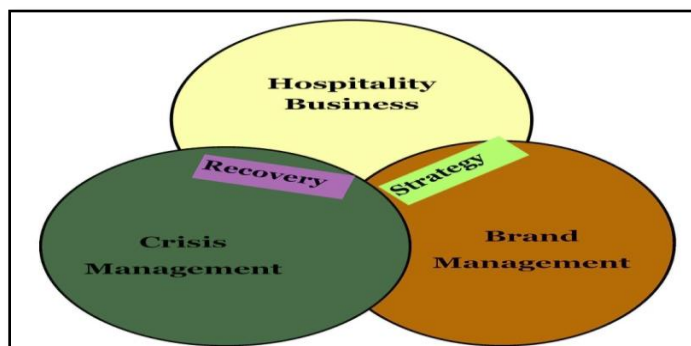


FIGURE 1, CONCEPTUAL MODEL OF BRAND & CRISIS MANAGEMENT IN HOSPITALITY BUSINESS, SOURCE:

AUTHORS, ASSIMILATED FROM LITERATURE REVIEW.

Through the figure, it is suggested that crises can be overcome or managed successfully if the enterprise is marketed well though the branding, however hospitality industry is very sensitive to the rumors, threats, bad publicity etc. moreover, the tourism & hotel industry is very prone to threats such as terrorism, disasters, pandemics, socio-economic crises, etc. and the impact of such threats widely affects social, economic, environmental, and cultural aspects.

HOTEL PREFERENCE ATTRIBUTES BEFORE AND AFTER COVID-19 PANDEMIC:

In the view of referring various literatures, social media and company websites, it will be imperative to assess the hotel brands in sustaining businesses during the pandemic with reference to brand preference through the parameters as suggested by Kim, J.J. & Han, H., 2022 are both tangible and intangible attributes. Hotel and room features with cleanliness, amenities offered are the most important features for the hotel selection and preference (Kim, et al, 2019). Wang et.al, (2020), tried to investigate the differences in hotel selection among the various group of travellers. The study indicated that business travellers,

Families and friends, couples FIT prefer the localism, values, room features, and cleanliness for their hotel selection. While in some other studies it is revealed that common hotel preference attributes by the travellers are cleanliness, accessibility, easy and hassle free check-in/check-out process, hotel class/category, interior and exteriors of the hotel property, lobby and supplementary facilities, online reviews over intermediary Apps, hygiene, professionalism of hotel staff, room features including bed, room size, bathroom etc. and the amenities provided in the room and bathroom along with value for money, safety & security etc. (Kim, J.J. & Han, H., 2022). Customers have more confidence on branded hotels due to hygiene, sanitation and safety conditions rather to relying on small and independent hotels.

During the covid-19 pandemic travellers preferred the hotels on the basis of three factors viz. social distancing, cleanliness & disinfections and tools and equipments used specially during the pandemic situation. The below table depicts the precautionary measures against covid-19 at the major hotel chain which could lead them to sustain the unprecedented time.

TABLE: 1, SUMMARY OF THE PRECAUTIONARY MEASURES AGAINST COVID-19 AT MAJOR HOTEL COMPANIES. SOURCE: WEBSITES OF EACH HOTEL COMPANY (ACCOR.COM / HILTON.COM / HYATT.COM / INTERCONTINENTAL.COM / MARRIOTT.COM) CITATION FROM THE ARTICLE BY KIM, J. J., & HAN, H. (2022).

<i>Hotel Chain</i>	<i>Norms and special features during Covid-19 protocols</i>
The Intercontinental Hotel group	<ul style="list-style-type: none"> • Social Distancing Norms: Social distancing protocols and enforcement of best practices in shared spaces, Social distancing operating signage, pre-packaged meal options and Single-serve. • Cleanliness & Disinfections: Intensified cleaning of high-touch surfaces, "last cleaned" logos, Availability of individual guest amenity cleaning kits, In-room IHG Clean Promise cards with cleaning procedures. • Tools and Equipments: Thermal scanners at the main entrance, Guidance on the use of protective equipment as necessary by hotel colleagues. Hand sanitizer and disinfecting wipes at high-touch points throughout the hotel, Sanitized key cards and paperless checkout.
The Marriot International	<ul style="list-style-type: none"> • Social Distancing Norms: Signage in its lobby to remind guests to maintain social distancing, Seating are kept at 2.5 meters between tables, with only 4 people allowed in each table (reduction of restaurant capacity to 50 or 60% as per government protocols), Removing or re-arranging furniture, Less contact through services including mobile key, mobile check-in, and mobile or e-requests. • Cleanliness & Disinfections: sprayers (Electrostatic) with hospital-grade for disinfectant to sanitize surfaces throughout the property, Increased the frequency of cleaning/ disinfection using a 70% alcohol based disinfectant spray etc.
Accor Hotels	<ul style="list-style-type: none"> • Social Distancing Norms: social distancing enforced in all common & public areas, desk-free check in, contactless payment solution- wherever possible, maintaining 1 meter distance across tables and maximum 8 person per table capacity. • Cleanliness & Disinfections: Strengthened room and public area cleaning protocols including extra disinfection of all high touch, The ALLSAFE label- new elevated cleanliness protocols and standards, Increased the frequency of cleaning. • Tools and Equipments: Thermal scanners at the main entrance or at lobby, Individual sanitizer, masks and wipes, Guest temperature measurement practices, disinfectant mats at the entrance etc.

<p>Hilton Worldwide</p>	<ul style="list-style-type: none"> • Social Distancing Norms: Contactless check-in powered by digital key technology, restricted and limited the number of guests allowed in the closed area such as fitness center at one time. • Cleanliness & Disinfections: Hilton 'Clean Stay' Room Seal on the products, De-clutter paper amenities, increased frequency of cleaning public areas at intervals, improved guidelines for disinfecting the hotel and its peripheral areas. Working with RB & Mayo Clinic for a new standard of cleanliness/ disinfection. • Tools and Equipments: Thermal scanners at the main entrance, manual and electrostatic sprayers which use an electro-statically charged disinfecting mist, ultraviolet light devices to sanitize surfaces, room equipments and objects, ready stations for disinfectant wipes at entrances and high traffic areas.
<p>Hyatt Hotels Corporation</p>	<ul style="list-style-type: none"> • Social Distancing Norms: guidelines for specific Capacity at elevators and all public areas, contactless room service with knock and go & Plexiglas partitions at high engagement areas such as restaurants. • Cleanliness & Disinfections: sanitizing public spaces with electrostatic sprayers with increased the frequency, removal of certain high-touch items from guestrooms • Tools and Equipments: Thermal scanners at the main entrance, purification and sanitation devices at public areas and guest rooms, Sanitizer stations prominently placed throughout the hotel, employees required to wear personal protection equipment (PP kits) in all areas of hotel.

Authors tried to go deep insights about the two hotel brands of India to find out how they sustained and survived during the covid-19 pandemic. Two large premier Indian hotel chains, Taj Group of Hotels (IHCL) and Oberoi Group of Hotels are taken in consideration for generating a view point:

Taj Group of Hotels (IHCL): The Indian Hotel Company Limited is among the Asia's leading hospitality companies with the presence of 200 hotels in more than 100 global locations. The portfolio of the company spans in multiple segments and countries like North America, UK, South Korea, UAE, Zambia, Srilanka, Malaysia, Maldives, Bhutan and Nepal and operates with the name of Taj, Selections,

Vivanta, Ginger, Expressions and Taj Sats (ihcltata.com). As per the IHCL sustainability report 2019-20, company had planned to tackle the current situation of pandemic where government around the globe had forced to suspend international flights and nationwide lockdowns. In the unprecedented situation of Covid-19, company experts devised five point strategies called R.E.S.E.T. 2020 which included- Revenue Growth, Excellence in Guest Well-Being, Experience and Operations, Spend Optimization, Effective Asset Management and Thrift & Financial Prudence. The below mentioned picture show the strategic plan of R.E.S.E.T. 2020.



FIGURE 2, RESET 2020 STRATEGY BY IHCL COMPANY, SOURCE: IHCLTATA.COM

As per the company's policy, company believed in proactive strategies to navigate the situation by RESET

2020. Further company believed that guest will prefer their trusted, reputed and time tested brand. Whereas on

the part of national level, industry will take possible measures to survive in short term, revive in medium term and thrive in long term. Strategically company took initiatives to set up engagement with customers through digital marketing by introducing brand specific websites, price check tool for corporate customers and integrating booking engines with brand websites. Also, 'Taj Inner Circle' program was refreshed and refined during the year. Charity events were organized in Taj Palace New Delhi to commemorate 115 years of operation.

OBEROI GROUP OF HOTELS:

The Oberoi group (EIH) was founded in 1934, presently operates 32 hotels, Nile cruiser and motor vessel in back water of Kerala. Oberoi hotels have presence in seven countries under the luxury 'Oberoi' and five star 'Trident' brand. Oberoi hotels and resorts group is also engaged in flight catering, airport restaurants, car rentals, tour services, project management and corporate air charters. EIH group has always been concerned and committed for the cleanliness and hygiene of the guest and its staff. Apart with the implementation of the guidelines set by the WHO and MOT, GOI, group has itself implemented number of additional measures of covid-19 protocols across all its properties. Some of the major steps are:

- Thermal scanning of all staff and guests.

- Disinfections and sanitization at all the touch points at public places and housekeeping rooms.
- Differentiated protocols for staff department wise viz. front office, housekeeping, F&B production and services etc. for smooth functioning.
- Sanitization of all materials received at hotels.
- Deployment of dedicated hygiene and safety managers at all its units.
- Mandatorily implementation of RTPCR and vaccination for guest and staff etc.
- Detailed SOPs in case of covid-19 positives with diagnosis and quarantine.
- Apart with detailed standards, company also had partnership with Bureau Veritas (world's leader in testing, inspection and certification services for validating and reviewing safety and hygiene programs).

EIH'S STRATEGIES FOR SUSTAINING BRAND DURING COVID-19

Company's strategy aim is to deliver strong return onto its shareholders, consistent value to its stakeholders and best in class services to its customers. For achieving this goal, company worked on three principles i.e. Endure, revitalize, and Flourish. Below figure show the three principles in synergy.

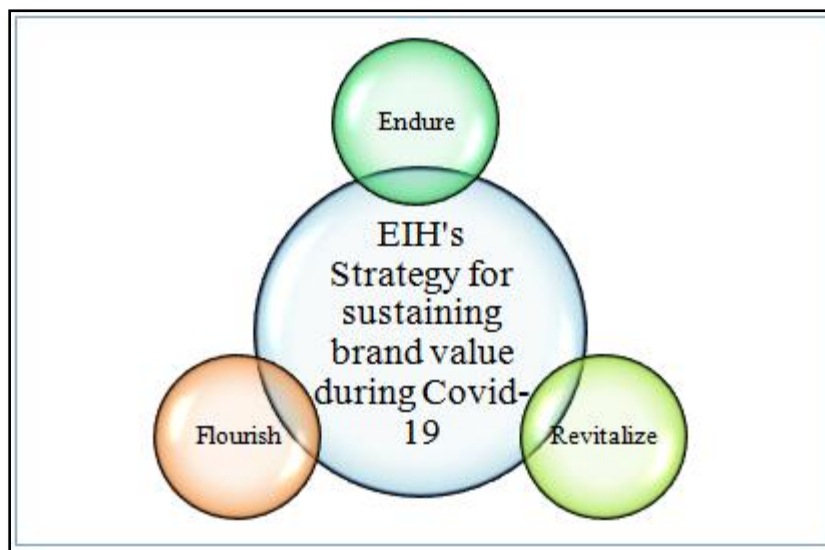


FIGURE 3, EIH COMPANY'S STRATEGY DURING COVID-19 FOR SUSTAINING BRAND VALUE, SOURCE: EIHLTD.COM

ENDURE: In the crises time employee health has been the prime focus, EIH demonstrated commitment for ensuring safety of the employees, partners and customers.

REVITALIZE: In FY 2021, following initiatives has been taken such as:

- Technology driven business
- Strategic initiatives such as technological advancements through the Oberoi Centre of Excellence

(TOCE)

- Partnership with Mandarin Oriental (O&MO) to bring together world's leading luxury brand to provide curated, exclusive and unique experience for royal members of both brands.
- Introduction of new transparent safety and hygiene norms.
- Integrated risk management for effective, ethical and

transparent practices.

- IT infrastructure for cloud computing data storage and excess.
- De-risking through enhanced F&B offerings with innovative stay dine in initiatives for attracting families, small groups to highly safe, sanitized and hygienic environment.
- Reducing carbon footprints.

FLOURISH: through this initiative, company focused on In-house project management and development of niche properties. A strong relationship is to be sustained with foreign and domestic clientele and intermediaries.

6. CONCLUSION

Tourism and hospitality industry of the country has significant potential in respect of economic contribution in the national and local GDP of the nation. As per the expectations of the economist, it is expected to grow with higher pace to any other service industry. However, due to emergence of unprecedented situation of Covid-19 pandemic, it shown a vertical drop in the growth, even many small and independent hotels are in position to shut their businesses or to transform in to other ways. Although, many chain hotels have been able to survive and recoup through their systematic strategies of branding. Branding or brand image create a unique experience in the mind of customer and serve as brand preference (Brakus et al., 2009). During the pandemic, main concern of the customer become health, safety and budget decision for travelling (Pappas & Glypton, 2021). Such concern of the customer or traveler made an array of affinity towards branded hotels or branded chain hotels. Individual hotels are striving for inclination of customers due to shortfall of policy, strategies and state of art safety and health facilities/policies due to financial and other constraints.

For survival, sustenance and recoup Taj group of hotels used rigorous brand management by working on RESET strategy which included the revenue growth, well being of customers, effective asset management etc. to give drift/thrift and financial prudence. Whereas, Oberoi group of hotels worked on three principles of branding and sustainability i.e. endure, revitalize and flourish, which ultimately helped in sustaining the brand image. The implications of branding strategy would be helpful in the view of independent and chain hotels to formulate and transform their businesses accordingly.

7. LIMITATIONS AND FURTHER SCOPE

This study highlights only on the conceptual and view point dimensions of branding and sustainability of hotel industry. Where, demography of population, perception, attitude, analysis, hypothesis etc. of customers and employees could not be measured through statistical tools. However, by seeing the present scope of branding on the sustainability of hotel business, it will be imperative to conduct a study on any specific variable in conjunction with others to find validated results. Authors are in process to conduct a study on branding and sustainability

of hotel industry in era of covid-19 pandemic with its various parameters through statistical analysis.

REFERENCES

1. CNBC (2020, May 15), what will hotel visits be like? Here's your room-by-room look at the future. Retrieved from <https://www.cnbc.com/2020/05/15/hotels-during-coronavirus-resorts-make-safety-changes-for-covid-19.html>.
2. CNN (2020, December 5). Vaccines won't end Covid so keep wearing your mask, top health official says. Retrieved from US Coronavirus: Vaccines won't rid us of Covid- 19, expert says – CNN
3. Connell, J. (1992). Branding hotel portfolios. *International Journal of Contemporary Hospitality Management*.
4. Demirçiftçi, T., & Kizilirmak, İ. (2016). Strategic branding in hospitality: Case of Accor Hotels. *Journal of Tourismology*, 2(1), 50-64.
5. Dev, C. (2009). Branding hotels.
6. Devendra, A. (2001). The Hotel Industry in India—The Past and The Present. *The Journal of Hospitality Financial Management*, 9(1), 65-73.
7. Giglio, S., Pantano, E., Bilotta, E., & Melewar, T. C. (2020). Branding luxury hotels: Evidence from the analysis of consumers' "big" visual data on TripAdvisor. *Journal of business research*, 119, 495-501.
8. Guo, L., Liu, K., Song, Y., & Yang, Z. (2021). Recovering hotel room sales during the COVID-19 pandemic: lessons from OTA information using the quantile regression approach. *Current Issues in Tourism*, 1-21.
9. Hashim, N. H., & Murphy, J. (2007). Branding on the web: Evolving domain name usage among Malaysian hotels. *Tourism Management*, 28(2), 621-624.

10. Hilton (2022). Clean and ready for you. Retrieved from [https://www.hilton.com/en/corporate/cleanstay/? Cid=OH, HI, CleanStay, MULTIPR, Tile, Home, SingleLink, i80729](https://www.hilton.com/en/corporate/cleanstay/?Cid=OH, HI, CleanStay, MULTIPR, Tile, Home, SingleLink, i80729).

11. <https://wtcc.org/Research/Economic-Impact>, accessed on 20th April, 2022.

12. <https://www.cayugahospitality.com/review/branding-hotels>. Retrieved on 12th May'2022.

13. <https://www.eihltd.com/-/media/eihltd/pdf-files/annual-reports/annual-report-2020-2021/eih-limited-integrated-annual-report-2020-21-02.pdf>

14. <https://www.ibef.org/industry/tourism-hospitality-india.aspx>, accessed on 20th April, 2022.

15. <https://www.ihcltata.com/content/dam/tajhotels/ihcl/sustainabilities/IHCL-Sustainability-Report-20-21.pdf>

16. <https://www.ihcltata.com/content/dam/tajhotels/ihcl/sustainabilities/IHCL-Sustainability-Report-2019-20.pdf>

17. <https://www.statista.com/topics/1293/market-research/retrived> on 22, April 2022.

18. John Connell (1992), Branding Hotel Portfolios, *International Journal of Contemporary Hospitality Management*, Vol. 4 No. 1. 1992 pp. 26-32 © MCB University press, 0959-6119

19. John W. O'Neill, Mats Carlbäck. (2011), Do brands matter? A comparison of branded and independent hotels' performance during a full economic cycle, *International Journal of Hospitality Management*, Volume 30, Issue 3, 2011, Pages 515-521, ISSN 0278-4319, <https://doi.org/10.1016/j.ijhm.2010.08.003>.

20. Kansara, D., & Mishra, M. (2019). Indian Hotel Industry–Review & Prospects. *Care rating-professional risk opinion*, 13-16.

21. Kim, J. J., & Han, H. (2022). Saving the hotel industry: Strategic response to the COVID-19 pandemic, hotel selection analysis, and customer retention. *International Journal of Hospitality Management*, 103163.

22. Kim, J. J., Han, H., & Ariza-Montes, A. (2021). The impact of hotel attributes, well-being perception, and attitudes on brand loyalty: Examining the moderating role of COVID-19 pandemic. *Journal of Retailing and Consumer Services*, 62, 102634.

23. Kim, J.J., Lee, Y., Han, H., 2019. Exploring competitive hotel selection attributes among guests: an importance-performance analysis. *J. Travel Tour. Mark.* 36 (9), 998–1011.

24. Kim, J.J., Lee, Y., Han, H., 2019b. Exploring competitive hotel selection attributes among guests: an importance-performance analysis. *J. Trav. Tourism Market.* 36 (9), 998–1011.

25. Kim, S.S., Chun, H., Lee, H., 2005. The effects of SARS on the Korean hotel industry and measures to overcome the crisis: a case study of six Korean five-star hotels. *Asia Pac. J. Tour. Res.* 10 (4), 369–377.

26. Kumar, A. (2020). Disastrous impact of coronavirus (COVID 19) on tourism and hospitality industry in India. *J. Xi'an Univ. Archit. Technol.*, 12(3), 1-15.

27. Lin, Y. C., & Chen, C. M. (2021). How do hotel characteristics moderate the impact of COVID-19 on hotel performance? Evidence from Taiwan. *Current Issues in Tourism*, 1-6.

28. Manthiou, A., Kang, J., Sumarjan, N., & Tang, L. (2016). The incorporation of consumer experience into the branding process: an investigation of name-brand hotels. *International Journal of Tourism Research*, 18(2), 105-115.

29. Marriott (2022, April 26). Travel with confidence during COVID-19. Retrieved from <https://clean.marriott.com/>.

30. Pappas, N., Glyptou, K. (2021). Accommodation decision-making during the COVID-19 pandemic: Complexity insights from Greece. *International Journal of Hospitality Management*, Vol. 93, 102767.

31. Pongsakornrungrungsilp, S., Pongsakornrungrungsilp, P., Kumar, V., & Maswongssa, B. (2021). The art of survival: tourism businesses in thailand recovering from COVID-19 through brand management. *Sustainability*, 13(12), 6690.

32. R. Taylor, C. (2020). Advertising and COVID-19. *International Journal of Advertising*, 39(5), 587-589.

33. Rai, S., & Nayak, J. K. (2019). Hospitality branding in emerging economies: an Indian

perspective. *Journal of tourism futures*.

34. Varun, K., Indu, B., & Ashish, K. (2015). Internal branding: a review of Indian hotel plindustry. *Advances in Management*, 8(11), 11.

35. Wang, L., Wang, X. K., Peng, J. J., & Wang, J. Q. (2020). The differences in hotel selection among various types of travelers: A comparative analysis with a useful bounded rationality behavioral decision support model. *Tourism Management*, 76, 103961.



NEW EDUCATION POLICIES 2020 CHALLENGES AND ROLE IN REFORMING HIGHER EDUCATION

RICHA AUDICHYA

(RESEARCH SCHOLAR), DEPARTMENT OF MANAGEMENT STUDIES, JNVU, JODHPUR

DEEPAK BHATIA

(RESEARCH SCHOLAR), DEPARTMENT OF MANAGEMENT STUDIES, JNVU, JODHPUR.

ABSTRACT:

Higher education must focus on producing decent, considerate, well-rounded, and creative people to meet 21st-century standards. Achieving personal goals and enlightenment, actively participating in society, and making a positive societal contribution are all made possible through higher education. It is the key to creating more thriving, socially active, cooperative communities and a happier, more unified, culturally advanced, creative, inventive, forward-thinking, and prosperous country. For decades, Indian higher education systems have been dealing with the following issue: several HEIs offer instruction in local languages, a lack of competitive peer-reviewed research funding across disciplines, an ineffective regulatory system, and large affiliating universities leading to low standards of undergraduate education, etc. Previous education policies had few limitations, as the new education policy has been framed to bring reforms in education. The government of India has made many recent amendments to the new education policy. It emphasizes institutional reform, comprehensive and multidisciplinary education, reimagining vocational education, and catalyzing high-caliber academic research across all fields through a new National Research Foundation. The primary goal of this study is to determine how new educational policies affect higher education and the adjustments needed following the previous educational system. This paper aims to highlight NEP 2020 and examine India 2.0's goal for a comprehensive educational system reform to meet the challenges of the twenty-first century. This study is exploratory and is based on secondary sources. Findings are based on a systematic review of existing literature.

KEYWORDS:

NEW EDUCATION POLICY 2020, INDIA, HIGHER EDUCATION, INDIAN HIGHER EDUCATION SYSTEM.

INTRODUCTION

The Indian government created the National Policy on Education (NPE) to encourage education among its citizens. The aim for India's future educational system is described in the "National Education Policy 2020 envisions an India-centric education system that contributes to building our country sustainably into an equal and thriving knowledge society by offering high-quality education to everyone". Quality higher education must aspire to educate exceptional, intelligent, well-rounded, and creative persons. The new education policy makes some fundamental changes to the current system. The key highlights are multidisciplinary universities and colleges, with at least one in or near every district, revamping student curricula, pedagogy, evaluation, and support for enhanced student experience. It establishes a National Research Foundation to support excellent peer-reviewed work and effectively seed study at universities and colleges. The key issues confronting the Indian higher education system include a lower proportion of enrolment in colleges and universities, the apparent absence of a coherent long-term policy, higher education excellence against equity, and issues of autonomy versus regulations in institutions. This study focuses on the challenges and key policies of the new education policy of 2020. It finds the future implications of NEP 2020 on stakeholders.

THE OBJECTIVE OF THE STUDY:

1. To highlight NEP 2020 and examine India 2.0's goal for a comprehensive higher education system reform to meet the challenges of the 21st century.
2. To identify the future opportunities of higher education under the new education policy.

RESEARCH METHODOLOGY:

The design used for this study was that of a descriptive research design that sought to examine, evaluate and assess the New Education Policy 2020 and its impact on higher education in India. This study is exploratory and is based on secondary sources. Studies were conducted on existing literature, textbooks, related literature, articles, journals, and online resources.

REVIEW OF LITERATURE:

This paper begins with an overview of NEP-2020, distinguishing the policy's strengths and weaknesses in higher education and research, evaluating the policy's implementation suggestions, and identifying and analyzing possible generic strategies for NEP-2020 implementation to meet its objectives based on focus group discussions. This article can be considered as a resource for the Government of India's policy implementation teams. [G., P. \(2022\)](#). This research paper discussed how the new education policy affects higher education in India. The

paper noted that the NEP, such a holistic approach, is bound to improve "creativity and innovation, critical thinking and thinking capacities, problem-solving abilities, teamwork, and communication skills." All of these are required to be an active learner and instill social and moral awareness. [Jagadesh Kumar, M. \(2020\)](#). This paper investigated the National Education Policy 2020 and its implications for stakeholders. This article is sponsored by Brain Impression [brainimpression@outlook.com]. Brain Impression is using Dermatoglyphics to study the unexplored potential skills of a child or an adult to find the right path to success. [Kalyani, P. \(2020\)](#). The paper identified three essential aspects of the new education policy for the higher education sector: course, language, and students. This paper also covered sentiment analysis about NEP 2020. It is discovered that most people view the policy as a positive and welcoming step. Kaurav, [R. P. S., et.al \(2020\)](#). Higher education is becoming increasingly crucial in policymaking as the importance of knowledge in the growth process tends to grow. With the adoption of the New Education Policy 2020, the affordability issue now raises concerns about the role of the public sector in financing higher education in India. This study discussed the significant challenges of maintaining national competitiveness while providing quality but affordable education across the country to people of all socioeconomic backgrounds. [Kazmi, S. S. H., et.al \(2021\)](#). This paper is the first attempt to highlight NEP 2020 and study India 2.0 vision towards overall education system transformation to meet the challenges of the twenty-first century. The research emphasized that one of the main objectives of NEP 2020 is to increase student enrollment in all educational institutions, such as elementary schools and professional and higher education, by 2030. [Kumar, A. \(2021\)](#). Research provided insights into the various contours of NEP 2020 and how they align with the 2030 targets of the UN Sustainable Development Goals (SDGs). This paper examined how India should proceed with caution to achieve its goals. The paper identified some significant gaps and execution challenges that must be addressed to foster "quality education for all" and add value to the world. [Kumar, K., et.al \(2021\)](#). India is celebrating its 73rd year of independence, and the country's goal is to achieve 100 percent literacy or universal literacy. Considering the vision and goals established for an independent India is critical. The purpose of this paper was to trace the history of India's educational system, review the NEP about HE, analyze the impact of the NEP on teachers, express the opportunities and challenges in implementing the NEP, and describe the road ahead to the NEP. [Tejashwini, K. C. \(2022\)](#). The Indian higher education system faces daunting challenges from inside—forces from within the institutions, within the country, and from global forces. It claimed here that some dilemmas are redundant, a few are legitimate and authentic, and some require a little daring re-thinking—drawing from ancient knowledge and modern global experience. The study discusses these many forms of educational difficulties. [Tilak, J. B. \(2020\)](#). This

conceptual research article focused on Higher Education and is based on the NEP 2020. (HE). The authors seek to explore background and emergence; highlight vision, focal thrust areas, and principal guidelines; and highlight features, impact areas, and opportunities for stakeholders. Finally, they emphasized the need for planned, methodical, and meticulous policy implementation. [Umachagi, A. E., et.al \(2022\)](#).

NEP 2020: A ROADMAP FOR INDIA 2.0

1. **HECI as a single regulator for HEIs:** In India, various higher education authorities will be merged into the Higher Education Commission of India as a single regulator for higher education institutions. The certification establishment will be replaced with the solid national certification council will be established. The national research foundation would provide research and innovation funds in higher education.
2. **Multidisciplinary education model for higher education institutions:** The multidisciplinary education model for higher education institutions will be mandated by NEP 2020. The deadline to achieve this vision is 2030, and it will take the lead to increase the strength of 3000 students by 2040.
3. **Modifying the evaluation assessment model:** NEP has made some changes to the evaluation assessment model. NEP has turned the end-semester examination system into a continuous assessment system. As traditional education becomes more market-driven, it will undergo the tremendous upheaval.
4. **Providing aid for education abroad:** The government of India will establish world-class educational institutes to attract international students. Under the new education policies, the government will give weight age to students who have completed their studies abroad and consider them equivalent in India. Students can start studies abroad and later on complete them in India. (NEP, 2020) (2)

CHALLENGES AND ROLE OF NEP IN REFORMING HIGHER EDUCATION

THE NEW EDUCATION POLICY FACES THE FOLLOWING CHALLENGES:

1. **Less proportion of enrollment in colleges and universities:** Only one-fourth of our youngsters enrolled in colleges and universities, including open and distance learning programs. Rural-urban disparities and inequalities across regions and states remain widespread in higher education, with minor improvements.
2. **The conspicuous absence of a coherent extended-term policy:** The lack of a clear and cohesive policy approach is also supposed to allow for judicial intervention and, on occasion,

contradictory judgments by the judiciary, whether it relates to private institutions, minority status, fees admission, reservation, or the validity of degree offered by open universities via distance mode, etc.

3. **Higher education excellence versus equity:** Elite institutions are essential in producing high-quality research. They expand the frontiers of knowledge, while mass institutions ensure a greater diversity of student populations in higher education and contribute to the democratization of society by increasing people's participation in national development activities. We must strike a careful balance between the size of the elite and mass systems.
4. **Issues of autonomy versus regulations:** Academic institutions must be autonomous. Complete autonomy for the private institute might be risky. They are already entirely autonomous in practice. They must follow many of the norms the UGC and others imposed at such institutions. Both autonomy and regulations are required in the higher education system.

ROLE OF NEP IN REFORMING IN HIGHER EDUCATION:

1. **QUALITY UNIVERSITIES AND COLLEGES: A FORWARD-LOOKING VISION FOR INDIA'S HIGHER EDUCATION SYSTEM:** The vision of the policy involves the following significant modifications to the present system:

- (a) Establishing a higher education system comprised of major, interdisciplinary universities and colleges, with at least one in or near each district, and additional HEIs throughout India that offer a medium of instruction or programs in local/Indian languages;
- (b) Redesigning curriculum, pedagogy, assessment, and student support for improved student experiences; and
- (c) Establishing a National Research Foundation to fund outstanding peer-reviewed research.
- (d) More opportunities for excellent public education; scholarships from private or charitable universities for underprivileged and disadvantaged students; online learning and open distance learning (ODL); and all educational resources accessible to and available to students with disabilities.

2. **INSTITUTIONAL RESTRUCTURING AND CONSOLIDATION:**

- (a) The fundamental goal of this strategy on higher education is to stop the fragmentation of the field by making universities, colleges, and HEI clusters/Knowledge Hubs big,

multifunctional institutions with an enrolment goal of 3,000 students or more.

- (b) All institutions now linked with universities must ultimately meet the requirements for accreditation and become independent colleges that offer degrees. This will be accomplished through a coordinated national effort that includes effective mentorship.

3. INTERNATIONALIZATION:

To reach this objective of internalization, we need to draw global quality standards. It will include courses and programs in subjects like Indology, Indian languages, AYUSH systems of medicine, yoga, arts, music, history, culture, modern India, and internationally relevant curricula in the sciences and social sciences. India will be marketed as an affordable worldwide study location that offers top-notch instruction, reclaiming its former status as a Vishwa Guru.

4. EQUITY AND INCLUSION IN HIGHER EDUCATION:

The government and HEIs have adopted the following actions specific to higher education.

- a. Earmark appropriate government funding for their education.
- b. Increase the gender balance in HEI admissions.
- c. Improve access by establishing more excellent HEIs in aspiration districts and Special Education Zones with higher concentrations of SEDGs .
- d. Develop and support high-quality HEIs that offer instruction in local/Indian languages or bilingually.
- e. Conduct outreach programs about higher education opportunities and scholarships for SEDGs (Socio-Economic Disadvantaged Groups). Develop and support technological tools for improved participation and learning outcomes.
- f. Offer more financial aid and scholarships to socioeconomically disadvantaged students.
- g. Boost the employability potential of higher education programs.
- h. Create more degree programs taught in Indian languages and bilingually.

5. TEACHER EDUCATION:

Teacher plays a vital role in shaping the future of students. All teacher education programs must be held at composite multidisciplinary institutions since teacher education needs input from several disciplines and instruction in pedagogy and high-quality content.

- a. Students who hold a Bachelor's degree in a specific field of study may enroll in the 2-year B.Ed. The program offered by the same HEI offers the 4-year integrated B.Ed. Candidates who have

completed a 4-year undergraduate degree in a specialized field may also be eligible for a 1-year B.Ed. Program. Establishing scholarships for deserving students will help draw top applicants to the 4-year, 2-year, and 1-year B.Ed. Programs.

- b. All new Ph.D. entrants, regardless of field, will be expected to attend credit-based courses in teaching/education/pedagogy/writing linked to their chosen Ph.D. subject during their doctorate training term.
- c. Technological platforms such as SWAYAM/DIKSHA for online teacher training will be encouraged, allowing for quickly delivering standardized training programs to many instructors.
- d. A National Mentoring Mission will be developed, with a massive pool of exceptional senior/retired professors, including those who can teach in Indian languages.

6. REIMAGINING VOCATIONAL EDUCATION:

- a. The leading causes of limited vocational education enrollment are that dropouts in Grades 8 and above and students in Grades 11–12 have received most of the attention in the past. Additionally, many students who completed vocational coursework in Grades 11–12 lacked clear avenues to pursue their chosen professions in higher school.
- b. This policy mandates the gradual integration of vocational education programs into mainstream education in all educational institutions to address the social status hierarchy associated with vocational education. High-quality vocational education will be seamlessly incorporated into higher education, starting with early exposure to the field in middle and secondary school.
- c. Further information on the National Skills Qualifications Framework will be provided for each subject, occupation, and profession. The International Labour Organization's International Standard Classification of Occupations will also be matched with Indian criteria. This Framework will serve as the cornerstone for prior learning recognition. Dropouts from the formal system will be reintegrated by matching their real-world experience with the appropriate Framework level. Additionally, the credit-based Framework will ease transitions between "general" and vocational education.

7. CATALYZING STANDARD ACADEMIC RESEARCH IN ALL FIELDS THROUGH A NEW NATIONAL RESEARCH FOUNDATION:

This strategy proposes the creation of a National Research Foundation to build on these diverse components synergistically and so really expand and stimulate high-quality research in the country

(NRF). The main objective of the NRF will be to make it possible for our institutions to develop a culture of research. In particular, the NRF will offer a consistent source of merit-based but equitable peer-reviewed research funding. It supports the growth of research at state universities and other public institutions where research capacity is lacking and fosters a culture of research in the nation through appropriate incentives for and recognition of outstanding research.

The NRF's primary responsibilities will be to:

- a. Finance competitive, peer-reviewed grant proposals from all disciplines.
- b. Mentor academic institutions to help them grow and support research, especially at universities and colleges where it is still in its infancy.
- c. Serve as a liaison between researchers, industry, and relevant government agencies to ensure that research scholars are consistently supported.

8. TRANSFORMING THE REGULATORY SYSTEM OF HIGHER EDUCATION:

- a. The National Higher Education Regulatory Council will be HCI's initial vertical. It will serve as the standard, single point of regulation for the higher education sector, excluding medical and legal education and including teacher education, removing redundancy and disjunction of regulatory efforts by the several regulatory authorities now in existence.
- b. Accreditation will be the primary tool for enabling such regulation. Consequently, a "meta-accrediting organization," known as the National Accreditation Council, will constitute the second HECI (NAC) vertical. Institutions will be accredited based mainly on fundamental standards, open self-disclosure, excellent governance, and results.
- c. The Higher Education Grants Council (HEGC), the third component of HECI, will manage the funding and financing of higher education based on open standards, including the IDPs created by the institutions and the status of their execution.
- d. The General Education Council (GEC), commonly known as "graduate characteristics," will define desired learning outcomes for higher education programs as the fourth vertical of HECI. To make the integration of vocational education into higher education more accessible, the GEC will develop a National Higher Education Qualification Framework (NHEQF) that will

align with the National Skills Qualifications Framework (NSQF). The NHEQF must define higher education credentials that lead to a degree, diploma, or certificate in terms of these learning goals. Through the NHEQF, the GEC will provide facilitative standards for problems like credit transfer and equivalence.

THE FUTURE IMPLICATION OF THE POLICY ON HIGHER EDUCATION

While the NEP 2020 represents a significant shift in education policy in India, the proposals for transformation in higher education provide their obstacles. The only way ahead is to put the proposals into action and prepare educational institutions for the changes.

1. **The policy offers a transformational road map by diagnosing the challenges and vision to overhaul and re-energize it:** An umbrella organization was always required in a country to provide uniformity in educational standards. The Higher Education Commission of India (HECI) would be established to supervise higher education in India, except medical and legal education. The same regulations, accreditation, and academic requirements will apply to public and private higher education institutions. Its four distinct verticals - the National Higher Education Regulating Council (NHERC), the General Education Council (GEC), the Higher Education Grants Council (HEGC), and the National Accreditation Council (NAC) - are thought to simplify the regulatory process.
2. **The HEIs will be free to choose a mix between research and teaching as per their strengths:** This is the general structure of the United States and the United Kingdom. Another centerpiece of the proposal is the National Testing Agency's introduction of a single university admission exam (NTA). The program also permits universities to establish offshore campuses, and many international institutions can now establish institutes in India.
3. **Academic Bank of Credit for digitally holding the academic credits:** The government will also construct an Academic Bank of Credit to digitally store academic credits earned from different HEIs, allowing them to be transferred and counted toward the final degree achieved.
4. **The government will implement the concept of all branches of creative human endeavor:** The idea that all forms of creative human endeavor, including science, mathematics, vocational courses, professional subjects, and soft skills, should be deemed "arts" has deep roots in Indian culture. This concept of a 'knowledge of many arts,' or what is now often referred to as the 'liberal arts,' must be reintroduced into Indian education since it is precisely the type of

education necessary for the twenty-first century.

CONCLUSION:

The movement from end semester evaluation scheme to continuous evaluation system will promote students to focus on understanding of the concept rather than mugging up. Setting up of NRF will foster quality research and improve the quality of education. NEP emphasis on experiential learning this will result in better attainment of course outcomes. National education policy 2020 was the need of the hour as for the economic development and social cultural development education is the base. NEP 2020 focuses on development of students as well as teacher; it will bridge the gap between industrial and academic expectations of the skill sets required by the students.

There are major challenges in implementing NEP 2020. **Firstly** the low enrollment ratio in higher education is a big cause of concern for the policy makers. **Second** the lack of uniformity in the interpretation and judgments given by the judges in matters related to quotas and minority status. **Thirdly** the lack of research culture is also a cause of concern in the higher education institutions.

The national education policy focuses on addressing all the issues related to this all the issues related mentioned above. Providing autonomy to the private institutions and uniformity in rules related to the policy matters of higher education institutions will bring about the positive change in the education system. The policy also focuses to address the issues related to the commercialization of higher education by the private institutes, this will encourage the enrollment in the institutions and aid in providing quality education to the students. If the policy is implemented with positive spirit and intentions, it will bring reforms in the education sector.

REFERENCES

1. G., P. (2022). *Role of NEP 2020 in Transforming Higher Education in India*. 11(5), 4.
2. Jagadesh Kumar, M. (2020). National Education Policy: How does it Affect Higher Education in India? In *IETE Technical Review* (Vol. 37, Issue 4, pp. 327–328). Taylor & Francis.
3. Kalyani, P. (2020). An empirical study on NEP 2020 [National Education Policy] with particular reference to the future of the Indian education system and its effects on the Stakeholders. *Journal of Management Engineering and Information Technology (JMEIT)*, 7(5), 1–17.

4. Kaurav, R. P. S., Suresh, K. G., Narula, S., & Baber, R. (2020). New education policy: Qualitative (contents) analysis and Twitter mining (sentiment analysis). *Journal of Content, Community and Communication*, 12(1), 4–13.

5. Kazmi, S. S. H., & Ali, M. (2021). New Education Policy 2020 and Financing of Higher Education in India. Kazmi, SSH, & Ali, M.(2021). *Education*, 4.

6. Kumar, A. (2021). New education policy (NEP) 2020: A roadmap for India 2.0. University of South Florida M3 Center Publishing, 3(2021), 36.

7. Kumar, K., Prakash, A., & Singh, K. (2021). How National Education Policy 2020 can be a lodestar to transform future generations in India. *Journal of Public Affairs*, 21(3), e2500.

8. Sawant, R. G., & Sankpal, U. B. (2021). National education policy 2020 and higher education: A brief

review. *International Journal of Creative Research Thoughts (IJCRT)*, 9(1), 3456–3460.

9. Tejashwini, K. C. (2022). Impact of National Education Policy 2020 on Higher Education. *Sumedha Journal of Management*, 11(2), 27–34.

10. Tilak, J. B. (2020). Dilemmas in reforming higher education in India. *Higher Education for the Future*, 7(1), 54–66.

11. Umachagi, A. E., & Selvi, R. (2022). National Education Policy 2020 and Higher Education: A Brief Review. *Sumedha Journal of Management*, 11(2), 19–26.



NEW EDUCATION POLICY- ISSUES AND CHALLENGES

DR. MOHAN LAL GOSWAMI

ASSISTANT PROFESSOR IN POLITICAL SCIENCE, GOVERNMENT GIRLS COLLEGE,
HANUMANGARH (RAJ.)

ABSTRACT:

In this set of hypothetical circumstances, education plays a critical and determining role. The National Education Policy 2020 has thus been converted into the structure of this restructuring, which might help to establish a fresh education system in the country in furthermore to reinforce those economic & social identifiers. The National Education Policy 2020 has been converted into the structure of this restructuring because it was determined that this restructuring would be beneficial. In the middle of all the gloom and doom that has engulfed the globe as a result of the difficulties presented by the COVID-19 epidemic, the New Education Policy (NEP 2020) that was released by the Government of India was a welcome shift and a breath of fresh air. That certainly has room for further development. Higher education that meets NEP 2020 standards will be provided by independent colleges and universities that encourage interdisciplinary study. This study also provides an overview of the most important aspects of NEP and investigates how those aspects influence the educational system that is now in place.

KEYWORDS:

EDUCATION, INDIA, POLICY, IMPORTANCE, GOVERNMENT, STUDENTS, STUDY.

INTRODUCTION:

The National Policy on Education (NPE) was developed by the Government of India to encourage education among several people of India. The policy extends from primary school through college education in both rural as well as urban India. Prime Minister Indira Gandhi issued the first NPE in 1968, Prime Minister Rajiv Gandhi issued the second in 1986, & Prime Minister Narendra Modi issued the third in 2020. The National Education Policy 2020 (NEP 2020), agreed upon by India's Union Cabinet on July 29, 2020, defines the goal for the country's future education systems. The newest policy supersedes the preceding 1986 National Policy on Education. The strategy provides a complete structure for kindergarten, secondary, & postsecondary education, in addition to vocational education in both rural & urban India [1].

By 2021, the initiative intends to reform India's education sector. The language policies in the NEP is a broad guideline or consultative, and their adoption is up to the regions, institutions, as well as schools. The NEP 2020 implements a slew of improvements to India's education policy. It intends to expand state education spending from roughly 4% to 6% of GDP as quickly as practicable. A group led by former Cabinet Secretary T. S. R. Subramanian began the discussion phase for the New Education Policy in January 2015. Following the committee assessment, a team chaired by former Indian Space Research Organization (ISRO) head Krishnaswamy Kasturirangan presented the proposed NEP in 2019 (Williams, 2019).

The Ministry of Human Resource Development subsequently announced the Draft New Education Policy

(DNEP) 2019, which was supported by a series of public discussions. The Draft NEP was 484 pages long. In developing the draught policy, the Ministry conducted extensive consultations: Over two lakh recommendations were submitted from 2.5 lakh gram panchayats, 6,600 blocks, 6,000 Urban Local Bodies (ULBs), and 676 districts. The National Education Policy envisions: National Education Policy 2020 targets an India-centric education system that effectively helps our country's long-term transformation into an egalitarian and thriving information culture by offering high training to everyone [3].

Excellent, intellectual, well-rounded, or creative persons must be developed via quality higher education. It must allow an individual to research one or more specialized regions of involvement in detail and create personality, moral as well as lawful principles, academic fascination, scientific emotion, imagination, service essence, and 21st-century skills in a variety of disciplines such as sciences, social sciences, the arts, liberal arts, cultures, individual, technical, as well as occupational topics. The new education policy makes a few basic adjustments to the current scheme, with the main points being multidisciplinary universities but also colleges in or relatively close to each neighbourhood, redeveloping pupil syllabuses, teaching methods, assessment, as well as assistance for augmented student experience, or rather constructing a National Research Foundation to endorse outstanding peer-reviewed tasks or rather successfully seed analyze at universities as well as colleges.

OBJECTIVE:

The research aimed to fulfill the following objectives:-

- Examine the New Education Policy in India 2020 and Similar policies.
- Study Why is it Necessary to Make These Adjustments to the Pre-Education Policy?
- To elaborate on features of the levels and the laws concerning higher education.
- Study important national education policy features relating to higher education.
- Examine the opportunities and obstacles regarding the national education policy 2020.

METHODOLOGY:

In this environment, education is crucial. The National Education Policy 2020 is the basis for this change, which might help develop a new education system also boost economic & social indices. The New Education Policy (NEP 2020) launched by the Government of India was a welcome shift from the negativity caused by the Covid-19 epidemic. Needs improvement. NEP 2020 supports diverse universities & individual colleges. This report highlights NEP's key elements as well as evaluates their impact on

education. This Article is mainly based on secondary sources.

REVIEW OF LITERATURE

➤ *What is the New Education Policy in India 2020?*

Under the new education policy of 2020, the educational system has to be fixed by 2030. The curriculum will be divided based on the educational system of 5 + 3 + 3 + 4 in place of the currently running 10 + 2 model. The target of investment of the Central and State governments has also been set for the new Education Policy 2020 in which Central and State Governments will invest in the education sector equal to 6 percent GDP of the country for cooperation in the education sector. We have tried to create a policy that will change the educational landscape in our understanding so that we can prepare the youth to face current and future challenges. It has been a journey that every member has taken personally and collectively, we have tried to cover different dimensions of the broader educational landscape of our country (Freire-Garabal y Núñez, 2020). This policy is all based on guiding objectives like access, capacity, quality, affordability, and accountability. From pre-primary to higher education, we have taken this field Seen in an uninterrupted continuity as well as encompassing other areas connected to the broader landscape.

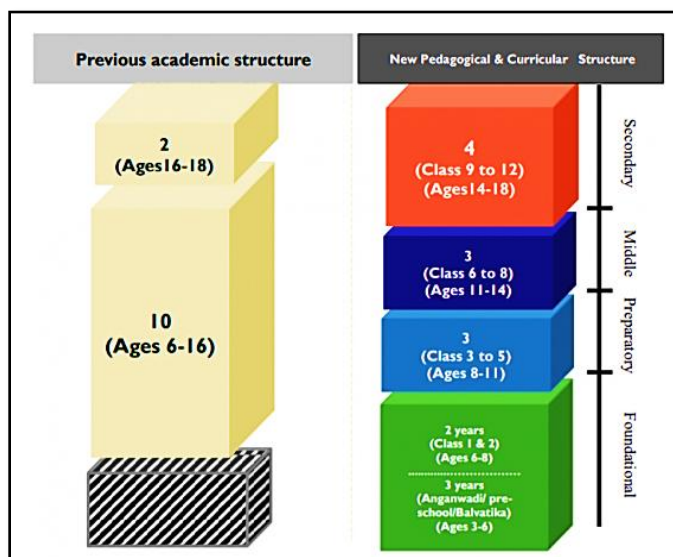


FIGURE 1. STRUCTURE OF INDIA'S NEW EDUCATION POLICY 2020

SIMILAR POLICIES

There are numerous rules & papers now in place that will be of assistance to the NEP 2020. The following guidelines and papers are attempted to be specified in Table 1:

THE POLICIES OR DOCUMENTS THAT ARE ASSOCIATED WITH NEP 2020 ARE LISTED IN TABLE 1.

S.No	Policy	Description
1	National Programme for Education of Girls at Elementary Level (NPEGEL)	The goal was to communicate with the females since they are more difficult to access than the other demographics (Draboo, 2020).
2	Saakshar Bharat/Adult Education	The goal is to build a literate community, with the nonliterate or neo-literate population aged 15 and older serving as the targeted audience.

3	Samagra Shiksha Abhiyan (SSA)	The primary educational initiative aimed at ensuring equal access to educational opportunities in schools (ASAD ALI, 2020).
4	District Primary Education Program (DPEP)	Primary education as well as the formalization of education at the basic level are the focus of the basic movement, which aims to revive both.
5	Inclusive Education for the Disabled at Secondary Stage (IEDSS)	To increase the number of students who identify as handicapped or abled who enroll in secondary or higher education.
6	Rashtriya Uchchatar Shiksha Abhiyan (RUSA)	Reforms touch several areas of the higher education system and the processes that are connected to it.
7	Rashtriya Madhyamik Shiksha Abhiyan (RMSA)	To improve secondary education on a local level (Sharma, 2021).
8	Right to Education (RTE)	Recognizing as a fundamental right is the provision of an education that is both free & mandatory to all children regardless of age group or social standing (Sharma, 2022).
9	Draft National Policy on Education 2019 - New Education Policy 2020	To promote children's cognitive growth and to facilitate their growth of analytical or procedural skills.

WHY IS IT NECESSARY TO MAKE THESE ADJUSTMENTS TO THE PRE-EDUCATION POLICY?

- The present educational system required modifications to accommodate the requirements of a knowledge-based economy in the context of a shifting international landscape (Avinash & Puradkar, 2018).
- New education should improve the overall standard of education while also encouraging innovations and development.
- In education policy, to guarantee that the educational system of India is accessible worldwide.

The perception of the National Education Policy 2020 is to create an education system that is centered on India by taking into account its legacy, heritage, principles, and ideology to participate straight in the transformation of the country into an understanding society that is inclusive, viable, as well as lively (Yenugu, 2022). The whole Indian educational system is established and constructed by trying to draw suggestions out of its extensive and lengthy chronological heritage as well as taking into consideration the contributions made by several academics to the globe in diversified areas those very as arithmetic, astronomy, metallurgical, medical science and surgery, civil engineering as well as design, shipbuilding as well as navigation, yoga, fine arts, chess, and so on.

FEATURES OF THE LEVELS

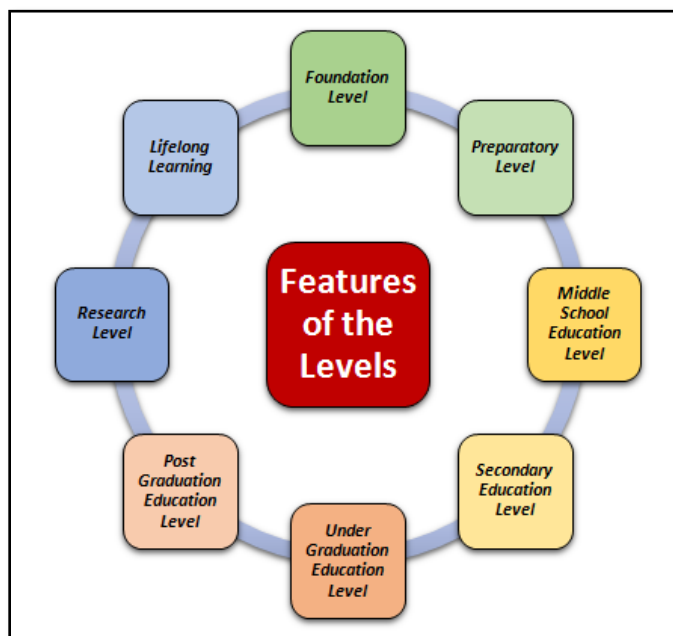


FIGURE 2. THE FEATURES OF EACH LEVEL OF THE NEW EDUCATION POLICY

The purpose of the recently announced NEP 2020 is to give a liberal education that is both multidisciplinary &

interdisciplinary to every candidate to increase the existing gross enrolment ratio (GER) to 50 percent by the

year 2035 (Kamala, 2020). Table 2 contains a rundown of the numerous educational lifespan phases that are

mentioned in the policy, together with an explanation of the characteristics that distinguish each level.

TABLE 2: FOLLOWING NEP 2020, A VARIETY OF EDUCATIONAL LEVELS WILL BE CARRIED OUT.

S.No	Educational life-cycle Levels	Features
1	Foundation Level	The Foundational Level, which lasts 5 years, includes foundational education that is dynamic, multilayered, play-based, activity-based, or discovery-based. Utilizing time-tested Indian customs & cultures, this stage is constantly developed via creativity & study for children's intellectual and emotional engagement (Garg, 2021).
2	Preparatory Level	For 3 years The preparatory level entails expanding on the play-, discovery-, or activity-based learning. Furthermore, this level increasingly integrates formal classroom instruction via publications. The goal is to introduce kids to many areas and encourage people to explore further discoveries.
3	Middle School Education Level	Middle school education lasts for 3 years & focuses on more complex topics within every subject such as sciences, mathematics, arts, social sciences, or humanities (Stacki, 2012). The constructivist approach will be used in specialized topics with subject instructors. Students are introduced to the semester system, as well as annual two-class level exams are held.
4	Secondary Education Level	Secondary school education is aimed to give transdisciplinary disciplines, particularly liberal arts education, across 4 years. This level will be based on a specific topic pedagogical or curricular approach with increased complexity, adaptability, critical reasoning, & emphasis on life goals. Students are introduced to the semester system, and each semester they will study 5 to 6 topics. Board examinations will be administered after the 10th or 12th grades.
5	Under-graduation Education Level	Undergraduate degrees in all subjects will be 3 or 4 years long, with numerous exit possibilities such as a certification after the 1st year, a diploma just after the 2nd year, or a Bachelor's degree after the 3rd year. The four-year undergraduate degree curriculum with majors, minors, or academic research is favored.
6	Post-graduation Education Level	The Master's degree consists of one program for students with 4 years of bachelor's degree, a two-year program for students with 3 years of bachelor's degree, as well as an integrative five-year program with a concentration on high-quality work in the final year. The Master's degree will include a substantial research element to develop occupational competency & preparing participants for postdoctoral research.
7	Research Level	For full-time or part-time studies, the research phase includes doing high-quality research resulting in a Ph.D. in just about any basic topic, transdisciplinary subject, or interdisciplinary pertain for a minimum of 3 to 4 years. Throughout their Ph.D., individuals must complete 8 credits of courses in teaching/education/pedagogy relating to their Ph.D. field. The previous one-year MPhil program has been terminated.
8	Lifelong learning	The NEP 2020 advocates lifelong learning & innovation to prevent humans from becoming outdated in societies in respect of understanding, skills, or experiences needed to live comfortably. It is considered that knowledge & study at any age would provide more maturation for life fulfillment.

LAWS CONCERNING HIGHER EDUCATION

Underneath the National Education Policy 2020, the gross enrollment ratio in higher education institutions is expected to rise from 26.3 % in 2018 to 50 % in 2020, with 3.5 crore additional seats created (Hegde, 2022). The gross enrolment ratio is the percentage of the entire qualified population at a certain education level who has enrolled in academic facilities. For instance, if the entire amount of students in the generation range suitable for entrance to higher education is 100, but only 60 apply, the proportion will be 60%. A Higher Education Commission of India will

indeed be established to supplant the UGC for all categories of higher education excluding medicine or administrative education.

There will be a multidisciplinary teaching and study institution comparable to IITs or IIMs. These institutions will be of the highest caliber (K., 2021). A universal entrance exam will be administered by the National Testing Agency for admission to these programs. It will be an option for all students; there will be no obligatory courses; arts & humanities disciplines will be offered in professional institutes. There are no Arts, Science, or

Commerce divisions. Students may select any topic they like. All of the country's institutions, such as the IITs, will take a comprehensive strategy.

IMPORTANT NEP FEATURES RELATING TO HIGHER EDUCATION

The new NEP was created with the goal of formalizing system improvements from the school level to the college/university level. Bearing the evolving environment in view, educational material will now center on essential concepts, theories, implementations, or issue approaches (K., 2021). The National Education Program is projected to have a favorable & long-term influence on the region's higher education system. The government's decision to enable international institutions to build campuses in India is a respectable one. This will allow students to experience worldwide education quality in their particular nation. The strategy of developing multi-disciplinary institutions would result in a revitalized emphasis on all sectors including arts & humanities, so this kind of training will assist students study & develop comprehensively. As a result, pupils will have a more solid information basis.

Different, independent, & competent agencies will conduct different administration, accrediting, finance, and academics benchmark tasks under the proposed higher education legislative system. These 4 entities will be developed as four autonomous divisions inside the Higher Education Commission of India (HECI). NEP has implemented several changes and innovations in the higher education sector. Among the notable characteristics are:

- ***A Uniform Governing Body for All Levels of Higher Education:***

The National Education Policy (NEP) has as one of its goals the creation of the Higher Education Commission of India, which would serve as the only regulating authority for all educational fields other than the fields of law and medicine.

- ***Programming Allowing Multiple Entries and Exits:***

There will be a variety of entrance & departure alternatives available for those who desire to depart the event at various points along the way. The Academic Bank of Credits will be used to facilitate the transference of their credits.

- ***Electronic Courses Will Be Made Accessible in a Variety of Languages:***

Technologies will play a role in the design of education, as well as teaching, learning, and evaluation, as well as training for teachers, schools, or students. The electronic material will be made accessible in provincial languages, beginning with eight main languages like Kannada, Odia, and Bengali, amongst others. These languages will join the e-courses that are now available in Hindi and English.

- ***An admission test that is standard across all educational institutions:***

The National Testing Agency is going to be in charge of administering the standardized test that is used for admission to all schools of higher education (NTA). The test will be taken voluntarily.

To control the standards of higher education in India, the Higher Education Council of India (HECI) will be established. Increasing the gross enrollment ratios will be the focus of the council's efforts. The HECI will consist of the following four verticals:

- *A "meta-accrediting body," the National Accreditation Council (NAC).*
- *The General Education Council (GEC) will define "graduate qualities," or the intended learning results. It will also be in charge of developing a National Higher Education Qualification Framework (NHEQF). As a professional standard-setting organization, the National Council for Teacher Education will report to the GEC (PSSB).*
- *The General Education Council (GEC) will define "graduate qualities," or the intended learning results. It will also be in charge of developing a National Higher Education Qualification Framework (NHEQF). As a competent standard-setting organization, the National Council for Teacher Education will report to the GEC (PSSB).*
- *Higher Education Grants Council (HEGC), for university and college funding and finance. The present National Council for Teacher Education, All India Council for Technical Education, and University Grants Commission will be replaced by this.*

CHALLENGES RELATED TO NEW EDUCATION POLICY (NEP): 2020

➤ *Education Is Expensive*

The new education strategy makes admittance to overseas institutions possible. Several scholars worry that admittance to overseas colleges would be too costly for the Indian educational system. As a consequence, lower-income students may find it difficult to obtain higher education.

➤ *Inappropriate Feeding-Related Investigations*

Several states still charge fees. There is control, but it is impossible to prevent profiting from unrestricted contributions.

➤ *Scarcity of human resources*

There is now a scarcity of qualified elementary school instructors. In such a case, the execution of the basic education system was developed under the National Education Policy 2020 (Sontakke et al., 2022).

➤ *Financing*

Providing financing will be contingent on how powerful the will is to spend the required 6% of GDP on education.

➤ **Co-operation**

State education is a simultaneous topic. This explains why the majority of states have school councils. As a result, the state governments must take the lead in carrying out this decision. The states may also be resistant to the concept of establishing a National Higher Education Regulation Campus as the primary regulating institution.

➤ **Education Sanskritization**

South Indian states claim that the trilingual formulation is an attempt by the government to Sanskritise education. Numerous issues might develop in sight of states although if kids are educated in their native tongue or local language. Individuals from many states, for instance, dwell in a union territory like Delhi. Children from various mother languages will attend this school. Whatever medium would all of these students be taught in, as well as regardless of whether English medium schools comply with the linguistic approach? In elementary school, what media would the students be allowed to learn through if the state modifies?

CONCLUSION:

The new National Education Policy, 2020, which has recently been endorsed by the central government to modify the education system in India to fulfill the requirements of 21st century India, would then, if it is satisfactorily enacted, make India one of the foremost nations in the globe. This new system is intended to modify the education system in India to fulfill the requirements of 21st-century India. Correspond Children aged 3 to 18 have been brought within the purview of the Right to Education Act, which was passed in 2009, following the new education strategy for the year 2020. This new education strategy, which was introduced after a gap of 34 years, has as its principal objective the provision of higher education to all children, with the ultimate goal of universalizing pre-primary education (the age group of three to six years) by the year 2025.

REFERENCES

1. The new limits of education policy: The Quality of Undergraduate Education. (n.d.). The New Limits of Education Policy. <https://doi.org/10.4337/9780857935953.00010>
2. Williams, R. (2019). National Higher Education Policy and the development of generic skills. *Journal of Higher Education Policy and Management*, 41(4), 404–415. <https://doi.org/10.1080/1360080x.2019.1606690>.

3. New higher education policy: A comprehensive model. (2015). *International Journal of Science and Research (IJSR)*, 4(11), 539–539. <https://doi.org/10.21275/v4i11.nov151164>
4. Freire-Garabal y Núñez, M. (2020). Practical recommendations to the new education policy of India 2020. *Al-Khalifa Business School Education Journal*. <https://doi.org/10.21428/2efc4e67.19584a7f>
5. Draboo, S. (2020). Barriers to girls' education at the elementary level in India. *ECE Official Conference Proceedings*. <https://doi.org/10.22492/issn.2188-1162.2020.32>
6. ASAD ALI, M. D. (2020). Samagra Shiksha Abhiyan – a paradigm shift in preprimary education. *i-Manager's Journal on School Educational Technology*, 16(2), 52. <https://doi.org/10.26634/jsch.16.2.17460>
7. Sharma, S. (2021). Rashtriya Madhyamik Shiksha Abhiyan in Punjab: Problems and suggestions. *Educational Quest- An International Journal of Education and Applied Social Sciences*, 12(2). <https://doi.org/10.30954/2230-7311.2.2021.10>.
8. Sharma, G. (2022). Locating the right to education in the National Education Policy of India (poster 23). *AERA 2022*. <https://doi.org/10.3102/ip.22.1886798>
9. Avinash, R., & Puradkar, P. (2018). Mahatma Gandhi's education policy in pre and Post-Colonial India. *Educational Discourse: Collection of Scientific Papers*, 4(3-4), 91–104. [https://doi.org/10.33930/ed.2018.5007.4\(3-4\)-9](https://doi.org/10.33930/ed.2018.5007.4(3-4)-9).
10. Yenugu, S. (2022). The New National Education Policy (NEP) of India: Will it be a paradigm shift in Indian higher education? *Perspectives: Policy and Practice in Higher Education*, 26(4), 121–129. <https://doi.org/10.1080/13603108.2022.2078901>.
11. Kamala, K. (2020). India National Education Policy (NEP) 2020. *ADVANCE RESEARCH JOURNAL OF SOCIAL SCIENCE*, 11(2), 80–86. <https://doi.org/10.15740/has/arjss/11.2/80-86>

12. Garg, S. (2021). Towards an Aatma Nirbhar India - laying the foundation of a globalized India through the new education policy (NEP) 2020. *Journal Global Values*, 12(2), 251-257. <https://doi.org/10.31995/jgv.2021.v12i02.032>

13. Stacki, S. L. (2012). Internationalizing the field of Middle-Level Education. *Middle School Journal*, 44(1), 6-7. <https://doi.org/10.1080/00940771.2012.11461833>

14. Hegde, G. (2022). Quality assurance and Private Higher Education in India. *India Higher Education Report* 2021, 151-165. <https://doi.org/10.4324/9781003298724-12>

15. Jain, K., & Singh, S. (2021). Ramifications of digitalization in higher education institutions concerning Indian educators. *Transforming Higher Education Through Digitalization*, 91-111. <https://doi.org/10.1201/9781003132097-6>

16. K., M. S. (2021). National education policy 1986 vs National Education policy 2020 - A comparative

study. *International Research Journal on Advanced Science Hub*, 2(Special Issue ICAMET 10S), 127-131. <https://doi.org/10.47392/irjash.2020.210>

17. Samtani, S., & Bhagavatula, S. (2022). National education policy (NEP) 2020: A necessary investment for India's education imperatives. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4061748>

18. Sontakke, S. G., Kadam, D. B., & Vartale, S. P. (2022). National education policy (NEP) 2020: India's new and Strong Higher Education Program. *SUMEDHA Journal of Management*, 11(3). <https://doi.org/10.46454/sumedha/11.3.2022.433>



NEW EDUCATION POLICY (NEP) 2020: ESCALATING EMPLOYABILITY SKILLS THROUGH VOCATIONAL EDUCATION

KRITIKA CHOUHAN

ABSTRACT:

India has been under the yoke of a harsh education system, despite the fact that it is the world's fastest growing economy and the country with the greatest working-age population. A significant demand for skill development has been identified in order to equip young people for their ideal careers. This is because the development of talents contributes to the progress of both the individual and the nation. A New Education Policy is introduced to replace the Root Education System and to introduce a more realistic style of teaching and learning. The NEP 2020 policy conveys that education is the most important factor prevailing in today's society and how vocational education is important for an individual's better career. The study also discusses the potential link between vocational education and the acquisition of employable skills.

KEYWORDS:

NEW EDUCATION POLICY, NEP 2020, VOCATIONAL EDUCATION, EMPLOYABILITY SKILLS

INTRODUCTION

NEP 2020 applauds the encouraging upward path in educational achievement because it is the bedrock of evolutionary progress for humans. Multilingualism and cross-disciplinary learning are at the heart of policy, which also supports the development of foundational knowledge and skills, as well as the nurturing of crucial creative and critical thinking. A fundamental goal of NEP 2020 is to help students stand out in a competitive environment by recognizing, identifying, and developing their individual strengths. Several novel ideas are presented to improve education, including the introduction of vocational courses, the reduction of stress around board exams, the addition of new subjects, the thinning of the wall between streams, and many others.

The basics of the Education Policies in India is to provide high-quality education to all which will convert India, into a developed and knowledgeable society also fundamentals of education policies is to encourage the various new courses which help the students to think outside the box and experimenting them with new ideas. More emphasis is paid towards identifying the unique capabilities of each student by offering multidisciplinary and holistic education across all the available subjects.

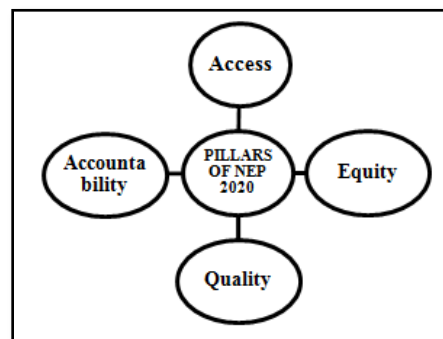
VARIOUS EDUCATION POLICIES IN INDIA:

- **National Policy of Education (NPE), 1968:**The specific policy in question mandated the establishment of a National School System, guaranteeing that children of all races, religions, and genders would have equal access to a basic education. Making the education level same for all. The basic characteristics of NEP 1968 is to create the vision like providing equal opportunities for all the students across the nation along with focusing on students from rural, tribal and

backward area, a special focus.

- **National Policy on Education, 1986 (NPE):**NPE 1986 focused on modernization and the role of information technology in education. More emphasis was placed on restructuring teacher education, early childhood care, women's empowerment, and adult literacy. The Policy includes a better understanding of the common educational structure, minimum levels of learning interregional mobility, lifelong education, national institution strengthening, and education reforms as first priorities.

New Education Policy, 2020 (NEP):NEP 2020 was announced in 2020 under Prime Minister Narendra Modi's leadership. The policy emphasises holistic and multidisciplinary education. Along with a forward-thinking vision for reimagining vocational education and a strong emphasis on capable faculty, as well as various students supports. The prerequisites for NEP 2020 are a New Curricular and Pedagogical Structure (5+3+3+4), as well as the promotion of multilingualism and Indian languages, as well as the adaptation and focus on Exposure of vocational education in the school and higher education systems.



LITERATURE SURVEY

Tilak, J. B. (2003) said there is a great demand for specific talents, hence vocational education has evolved. It reduces unemployment and boosts job changes. Current technology needs fewer middle- and lower-level skilled workers. Vocational education can build this manpower. Vocational education promotes a 'skill culture' and manual work mindset. As every profession transforms rapidly, vocational education and training are needed to address employment difficulties. **Idris, A., & Rajuddin, M. R. (2012)** emphasizes Vocational education is vital for employability since it trains competent personnel and makes them appropriate for the firm. Quality vocational education and training boosts production make students more capable. Many advanced countries value vocational skills and expertise. Many students consider Problem Solving, Planning, and Organizing, Time Management, Learning & Technology, Self-management, Problem-solving Teamwork, Communications Skills, Initiative, and Enterprise skills to be vital in preparing them for career-oriented employment.

Communication skills improve a person's professional career and social development (**Schulz, B 2008**), which increases an employee's employability. Effective social skills are evident in the classroom and working environments. Good communication skills are needed for being unique and thinking beyond the box. Training appropriate communication skills is an excellent way to increase an individual's skills. According to (**Gowsalya, Kumar, 2015**), universities and colleges are delivering skill-based education to students. Employers seek employees with a variety of talents, including teamwork, problem solving, good interpersonal and communication skills, leadership, technical skills, and business knowledge, so that employees can use their own initiative. Multitasking applicants can get jobs today. Thus, teaching should focus more on establishing abilities so students may learn how to apply them independently.

Popescu, M. E., & Roman, M. (2018) state vocational education promotes employability and success. Vocational training and education connect companies' demands with people's skills. It connects and holds young people to the changing market demands and wants and helps them find productive and sustainable careers. **Govinda R.(2020)** policy has a comprehensive set of educational principles that focus on instructors, students, and practical learning. A large part of policymaking will include a rebuilding schedule with a focus on strengthening, reforming, and innovating the present system by setting practical goals and outlining pathways. NEP 2020 changes include the development of vocational skills, which boosts employability.

Kalyani, P. (2020) said education is the boom for every developing economy and helps establish a nation. The education policy 2020 includes vocational education and inventive subject combinations. Vocational classes' help students grow and succeed. These early-stage changes focus on learning and developing according to talent,

which will help Students Bridge the gap between industry and academia. **Kumar, A. (2021)** reveals New Education Policy reframes previous policies and brings out progressive content to enhance the country's education. This policy aims to create jobs through vocational or multidisciplinary training. The new strategy clears all conventional education practices and introduces a new teaching style, making students highly competitive and advanced in the 21st century.

OBJECTIVE OF THE STUDY:

The current research investigates how New Education Policy 2020 can improve students' employability skills by increasing their participation in Vocational Education and other related programs. And what are the most significant challenges to overcome in order to enhance students' talents in accordance with the NEP 2020?

DISCUSSION

VOCATIONAL EDUCATION AND NEP 2020

The present NEP 2020 focuses on various vocational education programs and it aims that every child should learn "at least one vocation" and be "exposed to several more". NEP also talks about setting up "skill labs" a new initiative in collaboration with polytechnics and local industries, to have a vast practical experience for students. Quality vocational education will be incorporated smoothly into higher education which leads to a better position for carrier development (Pathak, R, 2020).

NEP has compiled a list of appropriate weapons to help bridge the well-known gap between vocational and academic education. In the context of vocational education, it is the job-oriented training that prepares learners or individuals for the job; it simply lists practical actions that prepare the learner for the development of the carrier, since the balance carrier is the exclusive duty of any workplace. Carrier development helps in the acquisition of new employment and possibilities, as well as the comprehension of new job positions. Following the development of carrier skills, there is a need to enhance or collect abilities in skill development that are required for the competent world. The process concludes with increasing employability, which is the main goal of NEP 2020, and all of the above factors are critical for increasing employability.

FEATURES OF STUDENTS' VOCATIONAL EDUCATION

- Vocational Education has been added to the curriculum in order to provide students with more subject options, including co-curricular and extra-curricular activities, and to allow them to establish their own goals and study pathways.
- In addition to vocational education, modern courses such as Artificial Intelligence, Design Thinking, Holistic Health, Organic Living, Environmental Education, and Global Citizenship Education (GCED), among others, are essential for developing students' talents.

- NEP 2020 has also taken the initiative to improve practical courses via the Internet, so empowering students to be more innovative and observant.
- The National Education Policy (NEP) has designated vocational courses such as carpenters, gardeners, potters, artists, etc. for students in grades 6 through 8, and courses such as digital literacy, coding, and computational thinking; ethical and moral reasoning; knowledge and practise of human and Constitutional values; gender sensitivity and management skills are introduced for students in higher grades.
- Vocational Education will contribute to the development of the modern Indian, and its success will inspire future aspirations in education, health, the environment, etc.
- Students will experience a sense of competition, which will assist them in developing respect for the environment, helpfulness, civility, patience, forgiveness, empathy, compassion, patriotism, a democratic worldview, integrity, responsibility, justice, liberty, equality, and brotherhood.
- The introduction of vocational disciplines will aid in assessing conceptual comprehension and application skills.
- Vocational education has been associated with a significant increase in employable skills, as it permits personal accomplishment, personal enlightenment, and public engagement.

FEATURES OF VOCATIONAL EDUCATION FOR TEACHERS & STAFF

- According to the NEP, for the purpose of regulating vocational courses, instructors with broader knowledge and more practical experience should be hired.
- For the benefit of students and to assist maintain and promote local knowledge and professions, it is necessary to designate eminent or knowledgeable experts in vocational courses.
- By 2022, a unified set of National Professional Standards for Teachers will have been developed by the National Council for Teacher Education in its new role as a Professional Standard Setting Body (PSSB) under the General Education Council (GEC), in collaboration with the National Council for Educational Research and Training (NCERT), State Councils for Educational Research and Training (SCERTs), teachers from all levels and regions, expert organisations in teacher preparation and development, expert bodies in vocational education, and higher education institutions (NPST).• The National Curriculum Framework for Teacher Education, NCFTE 2021, describes the prerequisites and requirements for teacher education in vocational education.
- The NEP 2020 emphasises that each school should have a sufficient number of vocational teaching teachers who can assist in resolving the overall

organised problems and obstacles faced by students in developing their vocational abilities.

- The objective of the NEP is to improve the Gross Enrollment Ratio in higher education, including vocational education, from 26.3% in 2018 to 50% in 2035.

VOCATIONAL EDUCATION AND EMPLOYABILITY

In many nations, bolstering access to vocational education and training is at the top of the list of priorities. It has been shown that the returns on investment in vocational education are significantly higher than those in secondary and higher secondary education generally (Agrawal, T., & Agrawal, A.) (2017). The NEP 2020 has been observed to be actively engaged in consolidating and expanding human capacities across intellectual, aesthetic, social, physical, emotional, and moral domains through the provision of holistic and multidisciplinary education. Although the Indian economy is one of the largest in the world, only a small fraction of the population possesses the set of skills that allows them to advance professionally and stand out from the rest of the pack. Some reforms, like encouraging vocational education and training to meet the new occupational standards, will help to increase the employability of young people in India. (Mehrotra and S. (2014)

Statistics gathered by the National Sample Survey Office (NSSO) show that between the ages of 15 and 59, just 2.2% of the population receives formal vocational training, while 8.6% receives non-formal vocational training. Based on these statistics, it's clear that the vast majority of people (about 90%) have no formal education or training in a trade. While the rate at which people get vocational training did increase slightly between 2004–05 and 2011–12, this only served to highlight the growing interest in and need for such programs. Establishing adequate vocational training and education is crucial to generating a more competent labour force, which in turn will increase the employability of citizens and the economy as a whole.

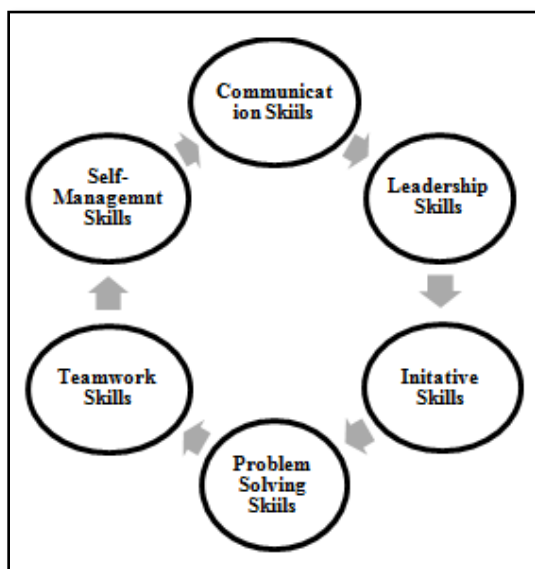
Workplace culture is shifting, and with it comes an increased demand for a highly qualified labour force, especially in light of the constant stream of new workplace initiatives. To thrive in today's competitive job market, employees need access to information and a wide range of skills. Knowledge in this field increases the individual's employability and productivity, so employers in countries like Malaysia, which is rapidly developing in the field of manufacturing and industrial sector, look to the current and next generation of workers to have a solid grounding in vocational education. The industry is bolstered by vocational education because it produces workers with the requisite skills. Since Malaysia is on the cusp of joining the ranks of the Newly Industrialized Countries, it needs an educated and experienced labour force to help steer and sustain its growing manufacturing sector. Increased employability is a direct result of vocational training's positive effects on both individual and occupational quality. When it comes to preparing the next generation of

workers for the job market, vocational and technical training can be a key factor. (Bakar, A. R., & Hanafi, I. (2007)

India stands to reap the most benefits from the coming demographic shift. There are plenty of job openings, which is worrying news for India's talent development system. In today's India, the job market is competitive and qualified people are in high demand, yet the jobless population is struggling with the same problem. Financial resources should be allocated to vocational education because of the strong correlation between a comprehensive education and future employment prospects. Vocational education and training in India has become increasingly important as a result of the country's ongoing process of modernization, which is linked to greater earnings and the satisfaction of employer and employee alike. To wit: (Kumar, R., Mandava, S., & Gopanapalli, V. S. 2019).

For the effective utilization of human resources, countries like India should pay more significant emphasis on vocational training the students along with academic education. The Indian government should take the necessary steps to boost the number of individuals enrolling in vocational education, as it is equally essential for expanding employment options. Incorporating vocational education alongside academic studies would enable the student to realise his full potential, since the acquired vocational skills will allow them to secure their chosen career after graduation. The association between vocational education and employability is favourable. The NEP intends to expand vocational education understanding by implementing these courses at the secondary and senior secondary levels. Many cooperatives and non-governmental organisations will also aid higher education institutions in training students with the finest occupational skills (Balakrishnan, K. 2021).

EMPLOYABILITY SKILLS OBTAINED THROUGH VOCATIONAL EDUCATION



- **Communication Skills-** Increase the employability in this competitive job market by developing your communication skills. An

in-depth comprehension of the job's responsibilities, duties, and potential for advancement depends on a person with strong communication skills and an understanding of how to effectively convey that information. A well-oiled communication system not only fosters teamwork and cooperation, but also boosts morale, involvement, output, and job satisfaction for workers.

- **Leadership Skills** — Effective leaders are essential in any organisation because they inspire their employees to work harder and set clear objectives for the future. Good leadership has a beneficial effect on a person's employability because it motivates and inspires workers to produce the desired results.
- **Initiative Skills-** The ability to take the lead and sees an opportunity when it presents itself is a hallmark of an initiator. The ability to take the lead and seize opportunities on one's own accord is one of the most valuable skills in the job market.
- **Problem-solving Skills-** Critical to a person's marketability is the ability to evaluate situations, generate new ideas, and find effective solutions to everyday problems. These abilities are vital in the business world because they aid in coping with a wide range of challenges.
- **Teamwork skills**—the ability to work effectively with others in a group; the cultivation of these skills leads to greater individual productivity and adaptability. Working effectively in a team involves delegating tasks amongst members and coordinating the efforts of everyone involved.
- **Self-Management Skills-**Ability to control one's own behaviour, thoughts, and emotions in order to keep a given situation thriving is an essential skill from an employment perspective, and this is where self-management skills come in. Those who take the time to cultivate, hone, and exercise their abilities in self-management tend to be more productive workers.

CHALLENGES OF NEP 2020 IN THE IMPLEMENTATION VOCATIONAL EDUCATION:

- Doubling the Gross Enrollment Ratio in higher education by 2035 is one of NEP 2020's primary objectives. This resulted in the opening of a new university every week for fifteen years. This enormous issue is a tremendous weight on the government, and making it a reality is a routine endeavour. Increasing the gross enrollment ratio by twofold is one of the stated and primary objectives of the policy.
- According to NEP 2020, at least fifty percent of students should get vocational exposure via school and higher education, which presents a challenge.

- The previous Gross Enrollment Ratio for vocational education in higher education in 2018 was 26.3 percent; NEP seeks to enhance it by 50 percent by 2035. NEP 2020 has as its specific objective the creation of 3.5 billion new seats in higher education.
- According to NEP 2020, there is no strict division between academic and vocational streams.
- The NEP 2020 acceptance rate is low since only a small percentage of students' select vocational education as their normal curriculum.
- Due to a lack of training institutes and understanding regarding vocational education, there is less interest in practical knowledge and vocational education.
- Another stated objective of NEP 2020 is to reintegrate students into the educational system and to offer them with a basic education. This objective involves a substantial investment in the infrastructure of schools, which necessitates meticulous preparation and is extremely difficult to achieve.
- Appointment of teachers, professors, and other operational personnel is a daunting task, since meeting the demand for highly qualified faculty members in the education system is a massive undertaking. Teachers and staff must be well qualified and of high calibre for the education system to function efficiently.
- After the age of covid-19, attention is placed on health care and economic recovery. NEP2020 is also the government's top priority, but it will be notified only after the healthcare and economic recovery requirements are met.
- It is vital to build and organize a significant pool of trained and certified vocational education teachers for the primary and secondary education systems. Teachers must be adaptable order to foster continuous development, and parents must do the same.
- As the Indian education system is monotonous and isolating, there is an urgent need for a cultural revolution throughout the entire higher education ecosystem. The entire focus of NEP 2020 is on interdisciplinary techniques that increase student quality and expand the educational platform.

CONCLUSION

In the present era, vocational education has been recognized as one of the important prerequisites for the development of India. The present study has focused towards the growth of vocational education in India. With the growing phase India needs to create a strong base for employability. The study emphasized on the role and the changes made in NEP 2020 for the successful implementation of the policy in various educational

institutions and how vocational education is important along with academic education. And it has proved as the mainstream for the overall development of individuals which helps them in accomplishing employability. It is also important to have the proper administration and management of vocational education along with training which leads to the enhancement of the quality and quantity of students. A better quality of vocational education will create a strong base of students and will help them to focus on specific criteria and planning to secure their position for their dream job. The study concluded that there is a positive relationship in vocational education training and employability skills.

REFERENCES

1. Kaurav, R. P. S., Suresh, K. G., Narula, S., & Baber, R. (2020). New education policy: qualitative (contents) analysis and Twitter mining (sentiment analysis). *Journal of Content, Community and Communication*, 12(1), 4-13.
2. Pathak, R. NEP 2020: A road map to Vocational Development.
3. Kalyani, P. (2020). An empirical study on NEP 2020 [National Education Policy] with special reference to the future of Indian education system and its effects on the Stakeholders. *Journal of Management Engineering and Information Technology (JMEIT)*, 7(5), 1-17.
4. Idris, A., & Rajuddin, M. R. (2012). An assessment of employability skills among technical and vocational education students in Nigeria. *Archives Des Science*, 65(7), 392-400.
5. Kumar, A. (2021). New education policy (NEP) 2020: A roadmap for India 2.0. *University of South Florida M3 Center Publishing*, 3(2021), 36.
6. Schulz, B. (2008). The importance of soft skills: Education beyond academic knowledge.
7. Gowsalya, G., & Kumar, M. (2015). Employability skill: A literature review. *International Journal of Advance Research in Computer Science and Management Studies*, 3(3).

8. Agrawal, T., & Agrawal, A. (2017). Vocational education and training in India: a labour market perspective. *Journal of Vocational Education & Training*, 69(2), 246-265.

9. Mehrotra, S. (2014). *India's skills challenge: reforming vocational education and training to harness the demographic dividend*. Oxford University Press.

10. Natarajan, C., & Chunawala, S. (2009). Technology and vocational education in India. In *International handbook of research and development in technology education* (pp. 105-116). Brill.

11. Tilak, J. B. (2003). Vocational education and training in Asia. In *International handbook of educational research in the Asia-Pacific Region* (pp. 673-686). Springer, Dordrecht.

12. Popescu, M. E., & Roman, M. (2018). Vocational training and employability: Evaluation evidence from Romania. *Evaluation and program planning*, 67, 38-46.

13. Govinda, R. (2020). NEP 2020: A critical examination.

14. Bakar, A. R., & Hanafi, I. (2007). Assessing

employability skills of technical-vocational students in Malaysia. *Journal of Social Sciences*, 3(4), 202-207.

15. Kumar, R., Mandava, S., & Gopanapalli, V. S. (2019). Vocational training in India: determinants of participation and effect on wages. *Empirical Research in Vocational Education and Training*, 11(1), 1-17.

16. Balakrishnan, K. (2021). Empowering Emerging India through Excellence in Education- Reflections on NEP 2020. *Elementary Education Online*. 20(1), 3596-3596.

17. <https://www.education.gov.in>

18. <https://cms.pib.gov.in>

19. <http://journal.iujharkhand.edu.in/Dec-2020/The-Significant-Shift.html>

20. <https://vikaspedia.in/education/policies-and-schemes/national-education-policy-2020>

21. <https://timesofindia.indiatimes.com/business/india-business/only-2-2-got-formal-vocational-training-nssso-survey/articleshow/49107369.cms>

22. https://www.researchgate.net/publication/350441366_New_Education_Policy_2020_-_Major_Challenges_Samachar_Nirdesh



ROLE OF NUCLEAR ENERGY IN GLOBAL CLIMATE CHANGE MITIGATION: A NEW APPROACH

MAHIMA RATHORE

RESEARCH SCHOLAR, JAI NARAIN VYAS UNIVERSITY, JODHPUR, RAJASTHAN, 342001.

ABSTRACT:

Today in the world of advanced economies the prime concern for survival of the mankind is safeguarding the environment. Much of environment is exposed to greenhouse gases and carbon emissions thereby resulting in the depletion of the environment each day and climate change. The global greenhouse gases and carbon emissions is mostly by the emissions from the energy sector which is primarily generated by combustion of fossil fuels i.e. coal, natural gas and oil. The recent trends show that approximately 60% of our electricity comes from burning fossil fuels, mostly coal and natural gas. In 2020, the electricity sector was the second largest source of U.S. greenhouse gas emissions, accounting for 25% of the U.S. total. The environmental depletion is not because of the economic advancement but by the absence of the effective measures to reduce the greenhouse gases emissions. Therefore with this declining trend of the environment it becomes a significant concern to conserve the environment and to deploy such technologies which not only reduces the carbon emissions but is also a sustainable energy resource. On this concern, Nuclear energy has come to the forefront to mitigate climate change because of its zero-emission clean energy source and seemingly limitless supply of energy. Today it has become the most sustainable energy source vital for achieving Sustainable development goals. This paper explores nuclear power and the effects it has on combating the environmental pollution at national and global scale and also in achieving the demands of economic development of the countries worldwide

KEYWORDS:

INTRODUCTION

Energy is the backbone of a country's development. One of the human systems most immediately affected by climate change is by energy use. The investments, inventions, and new industries that are the foundations of employment, inclusive growth, and shared wealth for entire economies are made possible by energy. Energy is a necessity for everything in our home and is a hallmark of modern convenience. In essence, we use energy to complete daily chores at home, at work, and elsewhere. The most popular approach to categorise energy use is by the end outcome, which can be either electricity, thermal energy, which includes heating and cooling (including hot water), or transportation. The majority of the fuel, power, and heat consumed by people all over the world is produced by fossil fuels, which include coal, petroleum, and natural gas, which are the main sources of energy. As a result the burning of fossil fuels for transportation, heating, and electricity production due to numerous human activities globally releases large volumes of greenhouse gases into the atmosphere.

The primary source of greenhouse gas emissions from human activities worldwide is the usage of energy. Burning fossil fuels to produce energy for transportation, industry, heating, and other uses accounts for almost two thirds of worldwide greenhouse gas emissions. This atmospheric concentrations of greenhouse gases have been rising because of this imbalance between greenhouse gas emissions and the capacity of natural mechanisms to

absorb those emissions. This has resulted into climate change and widespread damaging effects across our planet. In the coming decades, there will likely be a significant rise in the world's energy demand. This is mostly because to the anticipated increases in both the global population and the economies and industries of developing nations like China and India. Of the three end outcomes of energy, electricity became to be the most important and widely used for development and human activities. Over half of the rise in primary energy demand was brought on by higher power generation. With worldwide energy demand increasing by 4% to more than 23 000 TWh in 2018, electricity has continued to stake its claim as the "fuel" of the future. Due to its rapid expansion, electricity will soon account for 20% of all final energy use. Burning fossil fuels, such as coal, oil, or gas, to produce electricity and heat causes a significant portion of the greenhouse gases, such as carbon dioxide and nitrous oxide, that cover the Earth and trap the sun's heat. Gas is the second-largest source of electricity production after coal worldwide. Due to industrialization and urbanization, there is a growing need for power on a global scale. For instance, the International Energy Agency predicts that, compared to 2019, the global demand for electricity for electric vehicles will increase five to eleven times by 2030. Electricity needs to be as low in carbon as feasible if electric vehicles are to have a positive climatic impact. Burning fossil fuels is a major factor in the creation of energy. The electrical industry, which accounted for 25%

of all greenhouse gas emissions in the US in 2020, was the second-largest contributor. Coal continued to be the primary fuel for power generation in 2019, accounting for 37% of the world's electricity production, 10% of which came from renewable sources. The biggest concern is that since the generation of energy is heavily dependent on the combustion of coal and other fossil fuels, which has now become a major contributor to climate change, as energy demand rises daily.

In 2018 89% of the world's CO₂ emissions came from industry and fossil fuels. Hence there is an overall increase in the green house gases in the atmosphere which is responsible for the climate change. According to data from the United States Environmental Protection Agency, emissions of greenhouse gases are second only to transportation. Coal accounts for 56% of all energy use in India. This coal is mostly used to make power. Today, coal is used to generate 76% of India's electricity.

For many of us who live in urbanised, developed cities, energy conservation has proven to be an unattainable goal. More than 75 percent of greenhouse gas emissions are caused by energy use. To prevent a rise in global temperatures, the amount of electricity produced from clean energy sources must double during the next eight years. A new multi-agency assessment from the World Meteorological Organization warns that if we don't act, climate change, more extreme weather, and water stress could compromise our energy security and potentially endanger renewable energy sources (WMO).

Economic expansion is not something what leads to environmental degradation; rather, the absence of effective regulations to reduce greenhouse gas emissions is the cause. Because of this, it is essential to safeguard the environment and to put in place technology that not only reduce carbon emissions but also offer a sustainable source of energy to combat climate change, it is essential to finance the widespread use of renewable energy sources and energy-saving technologies while gradually phasing out fossil fuels. In such a scenario Nuclear energy, which is a carbon free sustainable source of energy due to a number of reasons, including the threat of global warming and the requirement for dependable baseload electricity, has come to the forefront to meet the requirements of zero carbon emission, clean and sustainable energy source and to be as measure to face the environmental challenges. Besides being a carbon free power, nuclear energy produces more energy electricity on less land than any other sources of energy.

NUCLEAR ENERGY AND CLIMATE CHANGE

One of the most significant problems the world is currently dealing with is climate change. Nuclear energy has the potential to significantly reduce greenhouse gas emissions (GHGs) while also providing for the rising energy needs of a growing world population and promoting sustainable development on a global scale. By producing nearly no greenhouse gases while producing electricity, district heating, and high temperature heat for industrial

processes, nuclear power offers a significant potential to help address the challenge of climate change. Nuclear power, which generates roughly 20% of our country's electricity and more than 60% of our low-carbon energy, is a crucial component of our energy plan as it is the only significant source of nearly greenhouse gas-free energy. The foundation of a clean, sustainable, and carbon-free energy source for the future has been built by nuclear energy, a low-carbon technique of generating electricity. Nuclear energy has helped to mitigate the greatest threat to humanity, i.e. climate change, by enabling the most sustainable energy transitions. It has established itself as a low carbon energy source, in contrast to coal, gas oil, and other energy sources. Nuclear power facilities do not emit CO₂ during the process of producing electricity. With 440 power reactors producing 10% of the world's electricity today, nuclear power has been essential in achieving environmental sustainability. With 28% of the total in 2019, nuclear power is the second-largest source of low-carbon energy worldwide. According to the World Energy Outlook 2021 published by the OECD International Energy Agency, nuclear energy is consistent with having the clean, dependable, and sustainable provisions of the Sustainable Development Scenario.

The Paris Agreement's politically-driven objective is to work toward limiting global temperature rise to 1.5°C and keeping it well below 2°C relative to pre-industrial levels (UNO, 2015). It is necessary to deploy low carbon energy technology much more widely in order to address the problems caused by climate change and to meet the objectives set forth in the 2015 Paris Agreement under the United Nations Framework Convention on Climate Change (UNFCCC). Nuclear industry has a considerably bigger role to play here. It can act as a baseload that supports renewable energy sources and ensures an ongoing, dependable, and dispatchable supply of electricity as nations increase their use of alternative carbon-free energy sources like solar and wind. Although there are many other renewable energy sources available for energy production, nuclear energy has emerged as one of the energy sources with the lowest carbon emissions when compared to other sources in terms of environmental impact. The nuclear energy has lifecycle emissions that are 90% less than coal and 80% less than gas, whereas hydropower, solar, and wind energy have lifecycle emissions that are much higher and have more negative environmental effects. Nuclear energy continues to be the largest source of low-carbon electricity in OECD (Organization for Economic Co-operation and Development) countries, accounting for 18.9% of total electricity production in 2012, despite the closure of all but two reactors in Japan following the Fukushima Daiichi accident (NEA, 2013). The greenhouse gas emissions per kilowatt-hour of electricity produced from uranium are minimal when compared to those from renewable energy sources when considering the entire life cycle of the metal (from mining through production to disposal). Nuclear power has the potential to play a significant role in achieving these mitigation goals and, as a large scale,

reliable, and concentrated source of energy, can also contribute to the broader economic and social dimensions of sustainable development.

ENVIRONMENTAL RISKS OF NUCLEAR ENERGY

Nuclear energy one such energy source that has come to the forefront in response to environmental concerns and requests for a zero-carbon, sustainable, and clean energy source is. Nuclear energy provides more electricity on less land than any other kind of energy, in addition to being carbon free. To provide the necessary amount of electricity, nuclear power plants must currently be developed. The UN Charter and the Treaty on Principles Governing States' Activities in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, make it mandatory that activities in outer space involving the use of nuclear power sources be conducted in accordance with these principles in order to ensure the safe and limited use of nuclear material in space. Since justice is also the central idea when using nuclear energy in modern times, therefore in order to reduce the impact and risk of deploying radioactive material in space, this resolution restricts the use of nuclear energy sources to only those space missions that cannot reasonably be completed using non-nuclear energy sources.

The conundrum and the catastrophic dangers of the nuclear energy is the liability of the harm caused by potential radiation exposure from nuclear power plants and uranium mining. Three major nuclear power plant accidents, at Three Mile Island in the United States in 1979, Chernobyl in the Soviet Union in 1986, and Fukushima in Japan in 2011, have sparked debates about the risks nuclear energy poses to the environment and the general public, as well as the legal ramifications of such harm. Because of the catastrophic risks associated with nuclear accidents and radiation, using this alternative form of energy may present challenges for both persons and the environment. As a result, using nuclear energy allows for the establishment of justice on the bases of four principles: liability, safety, and security.

Due to its ability to provide climatic justice, nuclear energy is now a need.

In general, the possibility of exposure to extremely harmful radioactive emissions and the detrimental effects of this radiation on health come out on top when we look at the downsides of nuclear energy. Lack of proper management of radioactive waste can endanger the environment and public health. Understanding the hazards and negative effects of nuclear power is essential to maximising its potential to fulfil future energy demands while emitting minimal amounts of carbon dioxide. Even though it is the cleanest energy source in the entire planet, producing it involves some risk, just like any other industrial activity. Environmental concerns associated with nuclear energy include those related to nuclear fuel cycles, which produce radioactive waste, and uranium mining, all of which must be promptly addressed with appropriate legislation and other measures. At the

aftermath of the three nuclear accidents worldwide, radioactive pollution of the environment and an unprecedented discharge of radionuclides into the atmosphere exposed the ecosystem to radioactivity. The ecology began to deteriorate as a result of these radioactive deposits in the atmosphere, which also affected the agricultural, urban, forest, aquatic, and terrestrial environments. The plants and animals in the impacted areas were harmed by the buildup of radioactive material and nuclear radiation in the atmosphere, which led to a slow degradation of the environment. The damaging effects of radiation were also observed in aquatic ecosystems, where it was discovered that fish and other aquatic creatures had accumulated radiation pollution, and that radiation runoff from the soil had added to the contamination. After more than 35 years, fishing is still "limited" in some waters beyond the exclusion zone because of radioactive exposure. For 20 kilometres near Chernobyl's nuclear power station, radiation levels were high for both plants and animals. The area's wildlife's overall mortality rate and reproductive efficiency both rose. Genetic abnormalities and deformities have been caused by DNA damage brought on by radiation exposure. "Therefore, there are numerous concerns associated with nuclear accidents, including air pollution, damage to streams, and destruction of vegetation

CONCLUSION

Nuclear energy has emerged as the most trustworthy and long-lasting energy source, but in order to fulfill the rising need for electricity, the catastrophic risks connected with its use must be decreased. We can see that the international community has put a lot of effort into strengthening the legal frameworks governing nuclear security, waste disposal, safety, and compensation in the event of an accident. They have been watchful in promoting the use of nuclear materials only in a safe manner. Through the creation of rules like the NPT, PTBT, and others, it has been sufficiently watchful in promoting the use of nuclear material solely for safe purposes. Additionally the uranium mining firms must use sustainable development methodologies in order to reduce the risks associated with uranium mining and ensure that it is carried out in a way that is both safe and environmentally responsible. Adopting the Environmental Impact Assessment procedure, which involves researching potential business efforts to reduce their negative environmental effects, is one way to do this. The environmental monitoring programme keeps track of any environmental concerns connected to the company and provides a framework for the sustainable development approach. The dangers of nuclear accidents, radioactive waste, and uranium mining can be reduced with the right legal structure, policies, and adherence to stringent criteria. The preservation of the balance between human activity and the rights of nature is essential for the future growth of economies. To prevent nuclear material from falling into the hands of unauthorized parties who might use it for uncontrolled activities that have a negative

impact on the general public or the environment, strict assessment and care must be taken throughout the entire fuel cycle, including during nuclear material transport, on both a national and international level. Therefore, significant national and international measures are required to prevent any nuclear material from being diverted or nuclear infrastructure from being sabotaged. The development and implementation of a physical protection system at the national level fall under the sole jurisdiction of the government and are inextricably linked to its national system of nuclear material accounting, safeguarding, and control. Strict assessment and care must be taken throughout the process. Throughout the whole fuel cycle, this system must include all nuclear material that is used, stored, and transported on a national and international level. A global system of nuclear safeguards was established by the IAEA.

REFERENCES

BOOKS

1. IAEA: Handbook on Nuclear Law – Implementing Legislation.
2. Nuclear Energy Agency Organization for economic Co-operation and Development: International Nuclear Law: History, Evolution and Outlook.
3. Lopuski, Jan, Liability for Nuclear Damage: An International Perspective – Reflections on the Revision of the Vienna Convention, National Atomic Energy Agency, Warsaw, 1993
4. K.K. Pathak, Nuclear Policy in India: A Third World Perspective (Gitanjali Parkashan, New Delhi, 1980).

ARTICLES

1. Bhattacharjee, S. (2012), ‘Looking through the prism of International Environment and Human Rights Law – International Civil Nuclear Liability Law and a Call for Indian Exceptionalism’, International Journal of Nuclear Law, Vol.3, No. 4, p 276.
2. Anderson, D. (1978) ‘Limits on Liability: The Price-Anderson Act versus Other Laws’, The Journal of Risk and Insurance, Vol. 45, No. 4 (Dec), pp. 651-674
3. Edwards, V. (2011) ‘Polluter Pays Principle’, Journal of Environmental Law, Vol. 23, No. 1, pp. 149-152

4. The Effects of Nuclear Radiation on The Environment, By Marina Somma

WEBSITES

1. www.nuclearlaw.wordpress.com
2. www.commondreams.org
3. www.resilience.org
4. www.ips-dc.org
5. www.theguardian.com
6. www.thehindu.com
7. www.iaea.org
8. www.niti.gov.in
9. www.ipcc.ch
10. www-pub.iaea.org

1. Arent, D. J. et al. in Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel of Climate Change (eds. Field, C. B. et al.) 659–708 (Cambridge University Press, 2014).

2. Global Energy and CO2 Status Report , International Energy Agency , available at https://iea.blob.core.windows.net/assets/23f9eb39-7493-4722-aced-61433cbffe10/Global_Energy_and_CO2_Status_Report_2018.pdf (Retrieved on Nov 17, 2022) .

3. Global EV Outlook 2021, International Energy Agency available on <https://iea.blob.core.windows.net/assets/ed5f4484-f556-4110-8c5c-4ede8bcba637/GlobalEVO Outlook2021.pdf> (Retrieved on Nov 17 , 2022).

4. Inventory of U.S. Greenhouse Gas Emissions and Sinks, United States Environmental Protection Agency
<https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>, (Retrieved on Nov. 9 2022).

5. World energy outlook, International Energy Agency, available on

<https://iea.blob.core.windows.net/assets/4ed140c1-c3f3-4fd9-aca-789a4e14a23c/WorldEnergyOutlook2021.pdf> (Retrieved on Nov 17 2022).

6. Fossil fuels and climate change: the facts Client Earth Communications available on
<https://www.clientearth.org/> retrieved on Nov , 15, 2022

7. Electricity Generation, NITI Aayog, Indian Energy Dashboards, available on

<https://www.niti.gov.in/edm/#elecGeneration>
 (Retrieved on Nov. 1, 2022).

8. Nuclear power in the world today, World nuclear power association, available on

<https://world-nuclear.org> (Retrieved on Nov , 11, 2022).

9. Nuclear power in clean energy system, International Energy Agency available on
[https://iea.blob.core.windows.net/assets/ad5a93ce-3a7f-461d-a441-8a05b7601887/Nuclear Power in a Clean Energy System](https://iea.blob.core.windows.net/assets/ad5a93ce-3a7f-461d-a441-8a05b7601887/NuclearPowerinacleanenergysystem.pdf). (Retrieved on Nov, 11, 2022).

10. Climate Change 2014 Synthesis Report available on

<https://www.ipcc.ch/site/assets/uploads/2018/02/>

[SYR AR5 FINAL full.pdf](#) (Retrieved on Nov 15 2022).

11. Nuclear Power 10 Years After Fukushima: The Long Road Back , Henri Paillere, IAEA Department of Nuclear Energy , Jeffrey Donovan, IAEA Department of Nuclear Energy.

12. Managing Environmental and Health Impacts of Uranium Mining, Nuclear Development 2014 , OECD , Nuclear Energy Agency , available on

[file:///C:/Users/HP/Downloads/Managing Environmental and Health Impact.pdf](file:///C:/Users/HP/Downloads/Managing%20Environmental%20and%20Health%20Impact.pdf)

13. The Effects of Nuclear Radiation on The Environment, By Marina Somma available on

<https://sciencing.com/the-effects-of-nuclear-radiation-on-the-environment-13428111.html> (Retrieved on Nov 4, 2022).

14. Environmental consequences of the Chernobyl accident and their remediation: twenty years of experience Report of the Chernobyl Forum Expert Group 'Environment', International Atomic Energy Agency available on

https://www-pub.iaea.org/mtcd/publications/pdf/pub1239_web.pdf



COMPETENCY BASED EDUCATION: AN INITIATIVE OF NATIONAL EDUCATION POLICY (2020)

DR. PRIYA KHIMNANI

SENIOR LECTURER, SHAH GOVERDHAN LAL KABRA TEACHERS' COLLEGE, JODHPUR.

TANUSHI MATHUR

RESEARCH SCHOLAR EDUCATION, JAI NARAIN VYAS UNIVERSITY, JODHPUR.

ABSTRACT:

Today's employment industry demands competent employees in every sector. People who are creative, innovative and have 21st-century skills are more productive in their field. Our current education system is not developing these essential skills thus creating a gap between the world of education and the job market. The National Education Policy 2020 lays emphasis on developing competent individual according to industry requirements. This Policy focuses on the holistic development of child which includes the development and nourishment of essential skills such as communication, teamwork, creativity, critical thinking and cooperation. This requires to shift in focus from rote memorization to Competency Based Education. Competency Based Education prepares students for the future and for meeting the needs of society. It is based on learning outcomes that are essential for developing critical thinking, and reasoning skills and for successful employment. This new educational approach allows students to gain mastery over the subject according to their own pace and time before moving forward. Competency Based Education consists of 3 components which are: Curriculum, Teaching & learning and Assessment. Central Board of Secondary Education (CBSE) according to NEP prepared plans for developing the curriculum and learning outcomes for Competency Based Education. CBSE is also organizing training programs and online courses for better understanding and successful implementation of Competency Based Education for principals and teachers. In this perspective the present paper discusses the concept and need of Competency Based Education. Paper also discusses the efforts put by CBSE for the successful implementation of Competency Based Education.

KEYWORDS:

CENTRAL BOARD OF SECONDARY EDUCATION, COMPETENCY BASED EDUCATION, NATIONAL EDUCATION POLICY 2020, 21ST CENTURY SKILLS.

INTRODUCTION

Education is the main attribute for the achievement of maximum human capacity, for the advancement of national development of any country and to empower the individuals for becoming self-sufficient and enlighten their view for improving their life. This demands quality education that is accessible to all. It is inevitable that our expectations from education and the way we prepare students for the future are going to change in this challenging world. Global education is preparing the next generation of learners for an era of technology in which critical thinking, practical application of principles, problem-solving, and creativity are more important than rote learning. In this context, it is a promising development that India recognizes quality education for all and National Education Policy (NEP) 2020 came into light which emphasized conceptual understanding than rote learning. NEP 2020 guides the education system and educators for the holistic development of students which includes the development and nourishment of essential life skills such as communication, teamwork, creativity, critical thinking, and cooperation for better decision-making and innovation. The National Education Policy (NEP) 2020 rightly states that *Education must thus, move towards less content, and more towards learning about how to think critically and solve problems, how to be creative and multi-disciplinary, and how to innovate, adapt, and absorb*

new material in novel and changing fields. The policy document emphasized that learning must fill the gap between classroom learning and the demands of the real world. The policy also focused on education which should be experiential, holistic, integrated, discovery-oriented, learner-centred and flexible. National Education Policy 2020 shift focus from rote memorization to Competency Based Education. This is the major shift from traditional knowledge-based education to Competency Based Education to prepare students for the global economy in 21st century.

COMPETENCY BASED EDUCATION: CONCEPT

Competency Based Education is a new educational approach which ensures proficiency in learning by students. It allows students to gain knowledge and mastery in specific skills or subject according to their own pace and time. It ensures for the development of age and grade appropriate knowledge, skills and attitudes for dealing real life situation. Competency is a general term which explain the desired skills, knowledge, attitude and of individuals towards their professional, personal and other life contexts. Learning should lead to the development of skills that will enable the individuals to perform tasks or take actions that will enable them to lead a productive and joyful life. A competency is a set of

skills and knowledge that enables learners to successfully lead a successful life and perform their daily tasks. They are used to ensure that students have learned what they were meant to learn.

The three components of competencies are: knowledge, skills and attitude of learners.

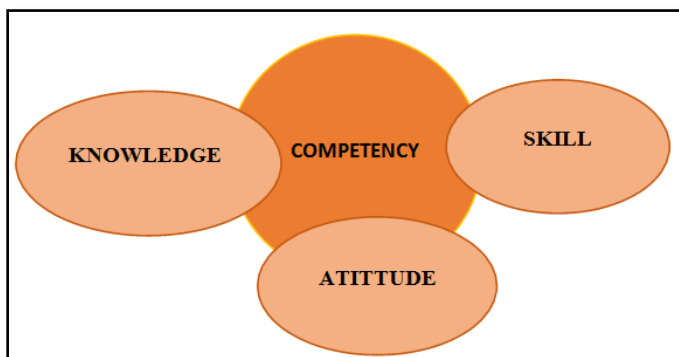


FIG: COMPONENTS OF COMPETENCY

Competency Based Education can enhance higher mental abilities of students that can make them capable to confront all the situations with proficiency. Competency Based Education requires unique features which are learning progressions, flexible pacing, personalized learning, anytime & anywhere learning and credit for mastery (Steel et al 2014). According to Central Board of Secondary Education *Competency Based Education is an approach to teaching learning and assessment that focuses on the students' demonstration of learning outcomes and attaining proficiency in particular competencies in each subject. It places the learner at centre and actively engages them in the learning process* In Competency Based Education (CBE), students demonstrate knowledge, skills, values, and attitudes needed for dealing with real life situations at the age and grade appropriate level through demonstration of competency in learning (CBSE). According to CBSE three main pillars of Competency Based Education are:

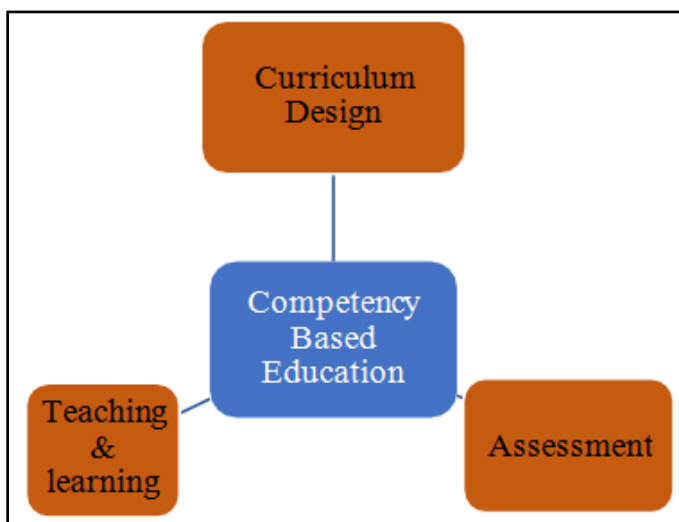


FIG: PILLARS OF COMPETENCY BASED EDUCATION

1. **Curriculum Design:** The main principle of curriculum design in Competency Based Education is that the curriculum should be more grounded in real world situations so that students can carry out activities and solve problems in an effective way.
2. **Teaching and Learning:** Students are centred in Competency Based Education. They can acquire knowledge and skill at their own pace with periodic feedback throughout a learning process.
3. **Assessment:** It focuses on whether the learner can apply the skills and concepts that they have acquired and learned. It provides feedback to students for improvement in performance.

NEED OF COMPETENCY BASED EDUCATION

- Today's competitive world demands people who are creative, innovative, and possess 21st century skills. These skills are essential requirements for individual success as well as for organizational success. In the case of our education system, it has been seen that our system is not developing these essential skills and that is why there is a gap between the world of education and the job market. Today's competitive market demands competent employees in every sector which raises the need of competency-based education.
- Mudler (2012) states that Competency-based education has aim to improve the performance of students not only in terms of knowledge but also in skills and attitudes.
- National Education Policy focuses on developing students who are competent to solve the issues generated in their workplace. This raises the need of Competency Based Education.
- Competency Based Education is student centric. It focuses on core skills and knowledge hence, positively affect the future of students.
- CBE provides practical experience to students thus, preparing them for facing the real life problems and finding their solutions.
- Competency Based Education (CBE) is an alternative to ensure a future ready generation proficient in relevant skills. CBSE with its focus on holistic education is facilitating this progression to CBE where learners would gain mastery of 21st century skills.

KEY FEATURES OF COMPETENCY BASED EDUCATION

1. **Learning outcomes:** The focus of Competency Based Education is the achievement of Learning outcomes. learning outcomes developed by NCERT according to the development of age and grade appropriate skills and proficiency. Different tools can be used for achieving learning outcomes beside textbooks these are project work, films,

workbooks, storybooks, graphic novels, nature trips, internet resources etc.

2. **Pedagogical Process:** NCERT suggested different pedagogies to teachers for achieving learning outcomes. Pedagogies which integrated arts, sport and ICT can be used. Besides these teachers are free to use new innovative pedagogies to ensure active learning. Differential support is provided which is based on students' learning needs. Teachers ensures that progress should be based on evidence of mastery rather than time in classroom.
3. **Assessment:** Assessment of students is done by the use of formative assessment. Peer and self-assessment should also do which encourages students to reflect on their own work and identify the areas of improvement.
4. **Others:** The other feature of Competency Based Education is that it provides equity to all students. It is learner centric and provides opportunities to learner to learn according to their own pace and time.

MEASURES FOR IMPLEMENTATION

For the successful implementation of Competency Based Education Indian School Boards are taking actions. They are preparing annual calendar for adopting Competency Based Education to improve the quality of education.

- NCERT agreed that to change our education system from textbooks to activity-based learning. Activity based learning emphasis 'learning by doing' which makes learning more joyful and engaging.
- To help students and teachers in implementation of Competency Based Education NCERT started a four weeks activity based alternate academic calendar for class 1 to 10. NCERT has stated the *week wise plan consists of interesting activities and challenges with reference to chapter / theme from the textbooks.*
- These calendars were launched by Hon'ble Minister, Ministry of Education of India in April-May 2020. NCERT has developed learning outcomes for elementary level in 2017 and for secondary level in 2019. Amendment in the Central RTE rules on 20th February 2017 include class wise and subject wise learning outcomes. These learning outcomes act as a guideline for teachers to assess students whether they acquire appropriate learning level or not. The RTE act applies to all government, private and aided schools. Therefore, it is mandatory to all schools under CBSE scheme required to follow teaching and learning based on learning outcomes approach.
- NCERT also formulated learning outcomes according to the themes of chapters. These learning Outcomes are formulated to assess the

progress of students learning; however, the main focus is on learning rather than testing of scores (CBSE Circular).

- To develop practical life skills among students, the CBSE has decided to implement a competency-based education system rather than simply relying on textbooks.
- A circular of the central board of secondary education (CBSE) declared Competency Based Education as a theme for the Capacity building program for the year 2020.
- CBSE and NCERT participated in a Programme for International Student Assessment (PISA) which help to introduce Competency Based examination system in schools.
- CBSE in partnership with British Council has initiated a systematic process to progressively move towards a competency-based education and assessment process. Under this project, an intervention for science, math and English (reading) from Classes 6 to 10 is planned which aims to strengthen system capacity; orient teachers to adopt relevant pedagogy, design and deliver competency-based assessments; and create a conducive environment that facilitates high quality competency-based education.
- The Competency-based Education project (CBE) is intended to strengthen schools' ability to deliver high-quality competency-based lessons, primarily in science, math, and English (reading). This project aligns with the National Education Policy 2020 (NEP 2020), the largest educational transformation agenda in India in 30 years.
- This project envisions secondary students experiencing deep learning in the classroom where they can acquire the skills they need to succeed in higher education and the global workforce, and they can demonstrate their abilities through effective assessment that challenges them to demonstrate their abilities.
- CBSE has also started capacity building programmes for teachers for better understanding of Competency Based Education. Various teachers training programs are also running in DIKSHA platform. Workshops and seminars are organised for understanding and implementing Competency Based Education.
- CBSE is also developing resources for teachers which are aligned to curriculum for more engagement of students in learning.

SUGGESTIONS

1. More teachers training program should be organised for the understanding and implementation of Competency Based Education on regional as well as national level. So, that they

can prepare their classroom schedules based on experiential learning.

2. More broad approach should be applied towards competency-based education from subject experts, item writers, and paper setters.
3. Organisation of workshops to change the mindset towards competency-Based Approach among teachers and parents.
4. Actions should be taken for take care the need of school and students come from a variety of backgrounds.
5. School should also provide support to teachers both financially and physically for the implementation of CBE.
6. Teaching learning material whether it is print or audio- visual material should be accessible to teachers and students.
7. Self -assessment questions should be accessible to students so as, to assess the achievement of learning outcomes.

CONCLUSION

National Education Policy 2020 will bring a major change in our teaching -learning practice by introducing Competency Based Education for students. Competency Based Education is a need of hour for successful living in 21st century. CBE integrates various skills from social skills to personal skills which enables learners to be productive in job market. Our education system also taking steps for integrating CBE in schools by conducting teachers training programmes, developing new curriculum and assessment practices. Although there is a long way to completely accumulate the Competency Based Education in our system.

REFERENCES

1. CBSE : CBE Circular No.Acad-18/2020. www.cbseacademic.in.
2. Hill, J., Houghton. (2001). A reflection on Competency Based Education Comments from Europe. *Journal of Management Education*, 25(2),146-166. <https://doi.org/10.1177/105256290102500204>.
3. Kellogg, Sara (2018). Competency Based Education: Best Practices and Implementation Strategies for Institutions of Higher Education. <http://digitalcommons.csp.edu/edd/3>
4. Ministry of human resource Development, *National Education Policy 2020* Government of India. <https://www.education.gov.in>.
5. Mulder, M. (2012). Competence-Based Education and Training– about Frequently Asked Questions. *Journal of Agricultural Education and Extension*, 18, 4, pp. 319-327. <https://doi.org/10.1080/1389224X.2012.692527>
6. Central Board of Secondary Education: CBE Resources. <https://cbseacademic.nic.in/cbe/>
7. CBSE : Progress on NEP 2020 https://cbseacademic.nic.in/web_material/Manuals/Progress_of_NEP.pdf



MAHATMA JYOTIBA PHULE : HIS ROLE IN WOMEN EMPOWERMENT

PARMOD KUMAR

DEPT. OF HISTORY, KURUKSHETRA UNIVERSITY, KURUKSHETRA, HARYANA.

ABSTRACT:

One of the most notable social reformers in India throughout the nineteenth century is JYOTIRAO GOVINDRAO PHULE. Jyotiba Phule rebelled against the unjust caste system of Hinduism. Many social and political philosophers launched movements against these systems and practices during this time. These intellectuals sought to improve women's status in social, economic, educational, and political spheres. These sociopolitical philosophers, including Mahatma Phule, Mahatma Gandhi, Dr. B.R. Ambedkar, Raja Ram Mohan Roy, Ishwar Chandra Vidyasagar, and others, formed movements to promote equality for women, members of the underclass, and dalits. So, one of the first leaders who vehemently condemned gender inequity was Mahatma Phule. He truly was a remarkable thinker and truth-finder. He believed that only when each person sought the truth and changed as a result could human society stay content. He claimed that during British control, the common people had the chance to free themselves from the Brahmins' slavery. Caste and gender issues were raised by Jyotiba. He rose up in rebellion against the unfair caste system, which had long caused suffering to millions of people. Phule sought to construct a society based on the values of individual liberty and equality in place of the oppressive Indian social system, and he would have preferred to replace Hinduism with a global religion. In India, Jyotirao Phule is regarded as a champion of women's education. In 1848, he and his wife Savitribai Phule established the first school for girls. He made significant contributions to the problems of women and advocated for widow remarriage and against child marriage. He brought up the issue of women's oppression, and his ideas on how to end it through women's own initiative and autonomy place him in the same category of other male feminist scholars. In this essay, I try to analyse Mahatma Phule's ideas and his fundamental philosophy regarding the empowerment and educational efforts which were done by him for women in Indian society.

KEYWORDS:

AUTONOMY, CONTRIBUTION, EDUCATIONAL, EMPOWERMENT, INTELLECTUAL, PHILOSOPHY, WOMEN.

Lack of education leads to lack of wisdom, which leads to lack of morals, which leads to lack of progress which leads to lack of money, which leads to the oppression of the lower classes. See what state of society one lack of education can cause

- Mahatma Jyotirao Phule

INTRODUCTION

On April 11, 1827, Jyotirao Govindrao Phule was born in Maharashtra's Satara District at Katgun. He was an Indian social reformer, writer, theologian, and activist. In India, he and his wife Savitri Bai Phule were pioneers in the field of women's education. His work included a wide range of topics, such as untouchability eradication and the upliftment of women and widows as well as caste system reform, education, and agriculture. He is renowned for working to educate both the public and the lowest castes, as well as women. He started the first school for girls in August 1848 after educating his wife. In order to achieve equal rights for peasants and members of lower castes, Phule founded the Satya Shodhak Samaj in September 1873 together with his supporters. He was introduced to Satya Shodhak Samaj with the intention of achieving the goal of advancing the welfare of underprivileged groups including Shudras, women, and Ati Shudras. The following are actually references to Mahatma Jyotirao Phule's services to the welfare of women and members of the underprivileged classes.

TIMELINE – MAHATMA JYOTIBA PHULE-

- 1827 born in Khatgun, Satara in a poor peasant family
- 1840 married to Savitri Bai
- 1848 started first school for poor girls with his wife Savitri Bai
- 1854 started a home for upper caste widows for prevent female infanticide
- 1873 formed the Satya Shodhak Samaj for attain kiii rights for peasants and people from lower castes
- 1888 honored with the title of Mahatma
- 1890 died [aged 63] in Pune, Maharashtra.

SOME IMPORTANT FACTS ABOUT JYOTIBA PHULE-

There are certain crucial details regarding this outstanding personality to remember:

1. George Washington and Chhatrapati Shivaji's biographies had both been read by Phule. They served as his main source of inspiration.

2. Thomas Paine's ideas and book "The Rights of Man" had an impact on Phule. Phule sought to replace the exploitative Indian social order with one based on the ideals of personal freedom and equality, and he intended to replace Hinduism with a universal religion.

3. Phule was the first person to advocate for human rights and equality. We should comprehend and recognise the great significance of his unwavering support for human rights.

SOME LITERARY WORKS DONE BY JYOTIBA PHULE -

The following books by Mahatma Jyotiba Phule contain his philosophy:

1. Brahmanacha Kasab (1969), in which Phule exposes the Brahmin priests' exploitation of the oppressed.

2. Gulamgiri (1873): He provided historical proof of the enslavement of lower castes in this book. Tell the story of Brahmin dominance in India's past. He warned the populace against exploitation in the guise of religion because religious epics are written by men.

3. Shetkaryancha Asud (1883): He wrote about the exploitation of peasants in this book.

He has examined the historical exploitation of peasants.

4. Sarvajanik Satyadharm Pustak (1891): He introduced the idea of a universal religion in this book and discussed blind faiths.

HIS VIEWS ON EDUCATION-

Phule advocated for universal, obligatory, and innovative education. He thought that education for women and members of lower castes should take precedence. As a result, he started educating his wife Savitribai at home and inaugurated the first girls' school in India in August 1848. On the first day, only eight girls were admitted. The number of students grew steadily. In 1851 and 1852, Jyotirao opened two further girl's schools. Phule was the first social reformer from India who focused in the situation of basic education system. He was constantly spreading awareness about education and pressuring the British government to develop plans for the education of all Indians. He advocated for everyone's right to an equal education, regardless of caste or socioeconomic status. He was aware that after educating the populace, they would stand up for their rights without assistance from others. He gave new meaning to the word "education." Real education equips a person to stand on their own two feet. Preliminary understanding of agriculture and health ought to be covered in the basic curriculum. Primary school curricula should be revised to better meet the needs of rural communities. The curriculum for rural and urban areas should be clearly separated. To meet the demands of society, education should be practical and utilitarian.

Whatever the lower castes' history of oppression, education is the key to their liberation. He strongly disagreed with schooling. He firmly asserted that, as previously indicated, the fundamental reason for the

degeneration of lower castes is a lack of knowledge. "Mahatma Jyotiba Phule highlighted the importance of education for all people. Mahatma Jyotirao Phule spent much of his life working to change society and promote equality. In accordance with his principles, Dr. Ambedkar drafted the constitution, which includes provisions for universal access to free and compulsory education. However, the goal of this article, which was to be accomplished within 10 years of the constitution's inception, has not yet been met. Thus, it is crucial to discuss and put into practise Mahatma Jyotirao's opinions on education.

HIS VIEWS ON EQUALITY AND SOCIAL JUSTICE-

Mahatma Phule claimed that the inequalities between men and women and the Brahmins' clever exploitation of the gullible people were the foundation of Indian society. Phule held that all men and women were made free and capable of exercising their rights by the same God who created the universe. All men and women were created by the creator to be the guardians of all human rights, preventing any one man or group of men from repressing an individual. All men and women have been given the right to freedom of religion and government by the Creator.

HIS VIEWS ON MEN AND WOMEN-

In Indian society, women were another group that was subjected to oppression. Phule consistently references both men and women. He didn't take it for granted that if men were addressed, women were immediately categorized in the same category. He specifically mentions women while talking about human rights. Phule's main issue at the time was the marriage system. He denounced taboos and conventions such child marriage, young girl marriages to older men, polygamy, opposition to women getting remarried, prostitution, harassing widows, etc. He counselled the Shudra peasants against taking on additional wives and against marrying their young children. He had carefully considered the concept of marriage and created a straightforward, contemporary rite in the form of a contract for the Satya Shodhak Samaj members' weddings (Truth Seeking Society). It's significant to note that Phule asserted that women were superior to males in many ways and did not only envision equal position for women in marriage, family life, education, and religion.

CONTRIBUTION OF SATYA SODHAK SAMAJ-

Jyotirao founded Satya Shodhak Samaj (society of seekers of truth) on September 24, 1873, with the intention of liberating the Shudras to stop their "exploitation" by Brahmins. He served as the organization's first president and treasurer. Through the group (Satya Shodhak Samaj), Phule rejected the idea of the Vedas being inviolate. He also disagreed with the notion and outright criticised the caste system. This group advocated for the propagation of reason and rejected the need for Brahmin priests to serve as educators and religious authorities. He was an Indian native who formed Satyadharm and never abandoned his

faith. He was also against those particular Brahmins who were exploiting people's faith in religion and mindless obedience to further their own financial interests.

EFFORTS FOR EMPOWERING THE SHUDRAS AND WOMEN-

Jyotirao committed himself to working for educational change. He was of the opinion that the Sudras of the Hindu community, as well as women, should pursue contemporary education. Even the Brahmins at the time opposed teaching their ladies. He made the decision to start a school for girls because, if a woman was educated, her home could serve as a classroom where she could instruct her children. Meanwhile, his friend Sadashivrao Govande drove him to Ahmednagar, a Christian missionaries' educational hub. They went to Madame Farrar's mission school, where she expressed her regret about the terrible state of women's education in India. She believed that every Indian man should educate his wife so that she can assist him in promoting education. As a result, when Jyotirao returned to Pune, he convinced his wife to pursue a degree; she did so and subsequently founded a school for girls from lower castes. Girls from untouchable castes including the Mahars, Mangs, and Chamars were welcome to attend this institution. Jyotirao opened a girls' school in Anna Chiplunkar's residence at Budhwar Peth on July 3, 1851, where he taught for four hours every day without receiving payment. The committee, which was made up of Keshav Shivram Bhavalkar, Anna Sahastrabuddhe, Bapuraoji Mande, Vishnu Bhide, Krishnashastri Chiplunkar, and Vishnushastri Pandit, was established by him and given management of the institution. Later on, Vishnushastri Pandit rose to fame for advocating widow remarriage. Eight females were enrolled when the school originally opened, but soon that number grew to forty-eight. Because of the school's tenuous financial situation, Jyotirao's wife started teaching on a volunteer basis and eventually took over as principal. Jyotirao rose to prominence as a proponent of women's education. On September 17, 1851, he opened a second girls' school in Rasta Peth, and on March 15, 1859, he opened a third in Peth. Reading, grammar, mathematics, geography, history, map reading, and other subjects were included in the curriculum. In a report, the school's manager, Major Candy, stated: "I am glad to notice the intelligence and advancement of the girls." After a public inspection of Jyotirao's school on February 17, 1852, Bhansaheb Mande delivered a speech. It is unfortunate that our nation's citizens have not yet been persuaded of the importance of educating women, he remarked. This time a judge by the name of Brown was present. He cited Milton in his address when he argued that educating women would increase family harmony and the value of the nuclear family. The Mahars and Mangs were beheaded before the British arrived for their offences against members of higher classes.

CONCLUSION-

The personality of Mahatma Jyotirao Phule, who made significant contributions to India's social and economic spheres, is also mentioned as a last point. His selfless service to mankind served as an inspiration to Dr. Babasaheb Bhim Rao Ambedkar, the author of the Indian Constitution. He adhered to the Jyotiba Phule school of thought, which stressed justice, equality, liberty, and brotherhood. He complied with all of Jyotiba's recommendations, including the right to education for all people and special consideration for women, minorities, and the oppressed. It is also significant to remember that Mahatma Phule passed away in 1890 still struggling with problems that we have yet to fully resolve. Had he lived, he might have received more respect from society. Mahatma Jyotiba Phule literature should be appropriately available from the government in schools and colleges. To improve society, active introduction of Mahatma Jyotiba Phule's educational, human rights, women's empowerment, sociopolitical, and religious ideals is required.

REFERENCES

1. Ahuja, Ram, Indian Social System. Jaipur: Rawat Publications, 1993
2. Deshpande, GP, Satyashodhak: Play, Aurangabad: Saket Prakashan, 1989
3. Deshpande, GP, Introduction; Selected Writings of Jyotirao Phule, New Delhi, Leftword, 2002.
4. Faizal, TK, Mahatma Jyotirao Phule: Enlightened Reformer of Indian education, Vidyawarta, Special Issue, January 2017
5. Gupta, NL, Mahatma Jotiba Phule: An Educational Philosopher, New Delhi: Anmol Publications Pvt. Ltd, 2008
6. Keer, Dhananjay, Mahatma Jotirao Phooley, Mumbai, Popular Prakashan, 2013
7. Mishra, Saraswati, Status of Indian Women, New Delhi, Gyan Publishing House, 2002
8. Mukherjee, Rudrangshu, Caste, Conflict and Ideology: Jotirao Phule and Low Caste Protest in Nineteenth-Century Western India by Rosalind O'Hanlon, Social History, Vol. 11, No. 3, October 1986.

9. Pawar, Anil Digambar, The Study of Social and Educational Work of Mahatma Phule, PhD Thesis, Jhunjhunu, Rajasthan, Shri Jagdishprasad Jhabarmal Tibrewala University, 2014.

10. Phadke, YD, Social Reformers of Maharashtra.

11. Rajni Bala and Navjoti, Mahatma Jyoti Rao Phule: A Forgotten Liberator, International Journal of Basic and Advanced Research, Vol. 1, No. 2, 2012

12. Saini, Dharamveer, Mahatma Jyotirao Phule and Peasants: A Historical Study, Research Matrix:

International Multidisciplinary Journal of Applied Research, Vol. 1, No. 6, January 2014.

13. Sirswal, Desh Raj, Mahatma Jyotirao Phule: A Modern Indian Philosopher, <https://www.researchgate.net/publication/272303358>



STUDY OF PHOTOGALVANIC CELL USING BIODEGRADABLE SURFACTANT IN TARTRAZINE - FRUCTOSE SYSTEM FOR POWER GENERATION AND STORAGE

ARYA RAKESH KUMAR

PHOTOCHEMICAL LABORATORY, DEPARTMENT OF CHEMISTRY, JAI NARAYAN VYAS UNIVERSITY, FACULTY OF SCIENCE, JODHPUR (RAJASTHAN) 342001, INDIA.

JAYSHREE RATHORE

PHOTOCHEMICAL LABORATORY, DEPARTMENT OF CHEMISTRY, JAI NARAYAN VYAS UNIVERSITY, FACULTY OF SCIENCE, JODHPUR (RAJASTHAN) 342001, INDIA.

LAL MOHAN

PHOTOCHEMICAL LABORATORY, DEPARTMENT OF CHEMISTRY, JAI NARAYAN VYAS UNIVERSITY, FACULTY OF SCIENCE, JODHPUR (RAJASTHAN) 342001, INDIA.

ABSTRACT:

The non-renewable sources of energy have their own limitations along with hazardous processes involved and pollution creating. The scientific community is compelled so is search out the renewable source of energy to feed the whole world with non-polluting nature and commercially viability. It was necessary and proposed to carry out experimental work under the solar parameters. A detailed reaction mechanism for the proposed solar cell for generating of photocurrent and photopotential has been studied. Photogalvanic Cells were studied using different parameters via photocurrent, photopotential, power conversion efficiency, fill factor and cell performance. The consumption of fossil fuels like wood, coal, kerosene etc. is so rapid is reaching towards their complete depletion. Thus, the solar energy is the best option to fulfil the energy demand. The above values are as following 939.0 A, 712.00 mV, 668.56 W, 6.4278%, 0.4806 and 185.0 minutes. Photogalvanic Cells were studied for solar energy transformation system.

KEYWORDS:

RENEWABLE ENERGY, PHOTOCURRENT, PHOTOPOTENTIAL, FILL FACTOR, CONVERSION EFFICIENCY.

INTRODUCTION

Actual plan of research work was proposed for systematic investigating in the field of photogalvanic cell for solar energy transformation. At earlier stage Rideal and Williams¹ studied about solar radiation, later on Rabinowitch² studied about iron iodide process about action sunlight. The PG Cells are used for energy exchange i.e., chemical into light energy. Rabinowitch³ studied on the photogalvanic properties of the thionine-iron system, and Potter A.C. and Thaller L.H.,⁴ studied on Efficiency of some iron thionine photogalvanic cell. Peter D., David R., Hobart N., Litchin N., Dale E., Hall A., John and Eckert,⁵ studied on Sensitization of an iron-thiazinaphotogalvanic cell to the blue. Hall D.E., Wildes P.D. and Lichtin N.N.⁶, studied on Electrode phenomena at the anode of the totally illuminated, Shigehara K., Nishimura M. and Tsuchida E.⁷, Photogalvanic effect of thin layer photo cell composed of thionine/Fe (II) systems. thin layer iron-thionine photogalvanic cell. Nasielski J., A. Kirsch-De Mesmaeker and Leempoel P.,⁸ observed the photoelectrochemistry of the RhodamineBhydroquinone system at optically transparent bubbling gas electrodes. Ameta S.C., Khamesra S., Chittora A.K. and Gangotri K.M.,⁹ Studied on used of sodium Lauryl sulphate in a photogalvanic cell for solar energy conversion and storage: methylene blue -EDTA system. Dube S., Lodha A., Sharma S.L. and Ameta S.C.¹⁰ Studied on use of an Azur-A-NTA system in a photogalvanic cell for solar energy conversion. Gangotri K.M., Meena R.C. and Meena R.¹¹

Studied on use of miscelles in photogalvanic cells for solar energy conversion and storage: cetyl trimethyl ammonium bromide-glucose-toluidine blue system. Gangotri K.M. and Meena R.C.¹² Studied on use of reductant and photosensitizer in photogalvanic cell for solar energy conversion and storage: oxalic acid - methylene blue system. Genwa K.R. and Gangotri K.M.¹³ Studied on Comparative studies in anionic cationic and non-ionic surfactant in photogalvanic cells for solar energy conversion and storage. Point of view: Nitrotriacidic-Azur B system. Meena R.C., Singh G., Tyagi N. and Kumari M.,¹⁴ Studies of surfactants in photogalvanic cells-NaLS -EDTA and Azur- B. Gangotri P. and Gangotri K.M.,¹⁵ Studies of the Micellar Effect on Photogalvanics: Solar Energy Conversion and Storage-EDTA-Safranin O-TWEEN-80 System. Bhimwal M.K. and Gangotri K.M.,¹⁶ mention the comparative Study on the performance of photogalvanic cell with different photosensitizers for solar energy conversion and storage: D-Xylose-NaLS systems. Genwa K.R. and Sagar C.P.,¹⁷ Studied on role of Carmine in Tween 60 - Ascorbic Acid System for Energy Conversion. Genwa K.R. and Chouhan Anju,¹⁸ Studied on optimum efficiency of photogalvanic cell for solar energy conversion and storage containing Brilliant Black PN-Ammonium lauryl Sulphate-EDTA system. Chandra Mahesh and Meena R.C.,¹⁹ Studied on role of Photo Sensitizer-Reductant for Generation of Electrical Energy in Photo galvanic Cell. Saxena Manmeeta, Sharma G.D. Dhiraj, and Roy M.S.,²⁰

Studied on improved performance of oxidized Alizarin based Quasi solid-state Dye Sensitized solar cell by surface Treatment. Ozuomba J.O., Edebeatu C.C., Opara M.F., Udoye M.C. and Okonkwo N.A.,²¹ Studied on performance of a Solar Water Distillation Kit fabricated from Local materials. Deshannavar U.B. Murgod A.A., Golangade M.S., Koli P.B., Banerjee Samyak and Naik N.M.,²² Studied on photo-Oxidation Process Application for Removal of colour from Textile Industry Effluent. Genwa K.R. and Sagar C.P.,²³ Studied on photoelectrochemical Conversion of Solar Energy Tween 60- Bromocresol Purple. Gunsaria R.K. and Meena Ram Narayan,²⁴ Studies of Cationic Micelles on Photogalvanic Cells for Solar Energy Conversion and Storage. Nair Smita,²⁵ observed the Study of Transition Metal Complex of Diuretic Drug and study of its Phyco-chemical properties as Potential Therapeutic Agent Mohan Lal and Gangotri K.M.²⁶⁻²⁸ Studied on comparative study the performance of photogalvanic cells with mixed surfactant for solar energy conversion and storage: D-Xylose Methylene Blue system. Rathore Jayshree and Lal Mohan²⁹ Studied on Study of photogalvanic effect in photogalvanic cell containing single surfactant as DSS, tartrazine as a photosensitizer and EDTA as reductant for solar energy conversion and storage. A detailed literature survey about different photogalvanic cell³⁰ has been used in solar transformation for best results.

MATERIAL AND METHODS:

Dye-tartrazine, reductant-D-fructose, Surfactant-lauryl glucoside(carbon pot), NaOH(1N), Double distilled water (DDW), 2-Multi-meter (The first multi-meter is used to measure potential as a substitute for a digital potentiometer another multimeter was used as a substitute for a micrometer to measure current), 250 - k carbon pot (carbon potentiometer), U-shaped glass vessel (beaker), Saturated calomel electrode (S), Platinum electrode (P), Resistance key (K), Digital pH meter and 200 W tungsten bulb. The present research project of PG Cell is studied by U-shaped glass vessel which was fabricated. The total volume of experimental set was 25 ml including solution dye surfactant and reductants. the electrical circuit was completed by using saturated calomel electrode, 250 k roistered(carbon pot), U-shaped glass vessel, platinum electrode, 250 - k carbon pot (carbon potentiometer), resistance key, digital multi-meter's, and 200 W tungsten bulb. During experiments, water filter was used for IR light. The **C-Wire** was connected with saturated calomel electrode and another **S-Wire** was connected with platinum foil electrode. The pH of the solution was adjusted and measured by a pH meter. U-shaped glass vessel. Photogalvanic cell was fabricated with different surfactants, dye and reductant solutions were used for investigation.

RESULTS AND DISCUSSION

EFFECT OF VARIATION OF LAURYL GLUCOSIDE CONCENTRATION ON THE PG-CELL:

During experiment stage solar, electric output was increased on increasing the concentration of lauryl

glucoside and reached to optimum position (at PH 12.18) and on subsequent decrease on increasing of lauryl glucoside concentration. The observed results are shown in table 3.1

EFFECT OF VARIATION OF TARTRAZINE (DYE) CONCENTRATION ON THE SYSTEM:

During experiment stage, solar electric output was increased on increasing the concentration of tartrazine and reached to optimum position and on subsequent decrease on increasing of tartrazine concentration. The observed results are shown in table 1.1

EFFECT OF VARIATION OF D-FRUCTOSE (REDUCTANT) CONCENTRATION ON THE SYSTEM:

During experiment stage, solar electric output was increased on increasing the concentration of D-fructose and reached to optimum position and on subsequent decrease on increasing of tartrazine concentration. The observed results are shown in table 2.1

EFFECT OF VARIATION OF NAOH (PH) CONCENTRATION ON THE SYSTEM:

During experiment stage, solar electric output was increased on increasing the concentration of **NaOH** and reached to optimum position and on subsequent decrease on increasing of **NaOH** concentration. The observed results are shown in table 4.1

EFFECT OF VARIATION OF DIFFUSION LENGTH ON THE SYSTEM:

During experiment stage, solar electric output was increased on increasing the **Diffusion length** and reached to optimum position. On increasing the value of **Diffusion length**, the value of i_{max} increased as well as a good balance was observed in the value of i_{eq} and the comparative results of rate of initial generation of current were also obtained. The observed results are shown in table 5.1

EFFECT OF VARIATION OF ELECTRODE AREA ON THE SYSTEM:

During experiment stage, solar electric output was increased on increasing the **Electrode Area** and reached to optimum position. On increasing the value of **Electrode Area**, the value of i_{max} increased as well as a good balance was observed in the value of i_{eq} . The observed results are shown in table 6.1

CURRENT-VOLTAGE (I-V) CHARACTERISTICS OF THE PHOTOGALVANIC CELL:

By using, following formula fill factor of PG-cell was calculated

$$\text{Fill factor } (\eta) = \frac{V_{pp} \times i_{pp}}{V_{oc} \times i_{sc}} \quad \dots\dots(1)$$

Where:

V_{pp} = Potential at power point=712 mV

i_{pp} = Current at power point=939 μA

V_{oc} = Potential at open circuit =1130mV

i_{sc} = Current at short circuit=1231 μA

(\square) = Value of fill factor= 0.4806

P_{pp} = The power point of cell (pp) = 668.56 μW

CELL PERFORMANCE AND CONVERSION EFFICIENCY:

By using, following formula fill factor of PG-cell was calculated

$$\text{Conversion efficiency} = \frac{V_{pp} \times i_{pp}}{A \times 10.4mWcm^{-2}} \times 100\% \quad \dots\dots(2)$$

Where:

V_{pp} = Photopotential at power point,

i_{pp} = Photocurrent at power point,

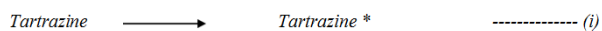
A = Electrode area for pg cell

MECHANISM OF PHOTOVOLTAGE AND PHOTOCURRENT GENERATION IN A CELL:

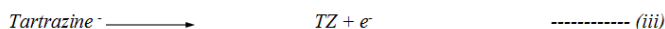
ILLUMINATED CHAMBER (AT PLATINUM ELECTRODE):

During experiment, dye molecule gets excited by absorption of sun light and converted in to semi or leuco form. Reductant molecules get in its oxidized form and subsequently semi form of dye molecule loss the electron and returned into its original state.

CHEMICAL REACTION AT ILLUMINATE CHAMBER

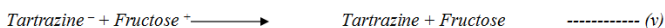
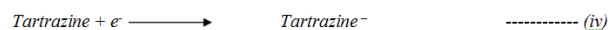


CHEMICAL REACTION AT PLATINUM ELECTRODE:



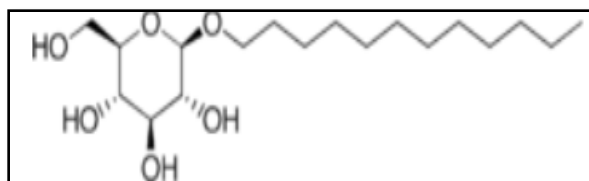
DARK CHAMBER:

At counter electrode: Tartrazine molecule accept an electron from electrode and converted into Tartrazine⁻ and at termination stage, Tartrazine⁻ converted into Tartrazine molecule and oxidized form of Fructose combine with Tartrazine molecule to give original dye and reductants molecule and the cycle will go on.

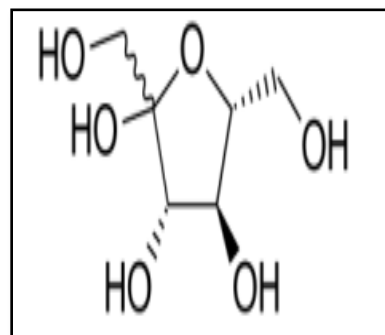


Where:

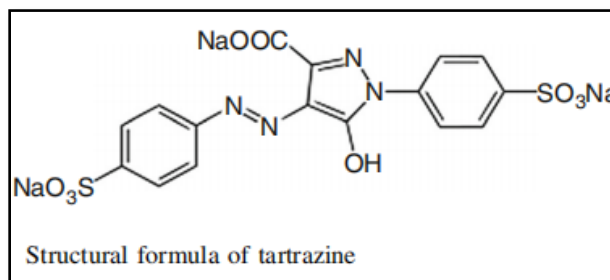
- Tartrazine = Dye molecule
- Tartrazine* = Excited dye molecule
- Tartrazine⁻ = Semi for of dye molecule
- Fructose = Reductant molecule
- Fructose⁺ = Oxidized form of the reductant,



LAURYL GLUCOSIDE



D-FRUCTOSE



MODIFIED DIAGRAM OF THE PG CELL SETUP USED IN THE PRESENT RESEARCH WORK

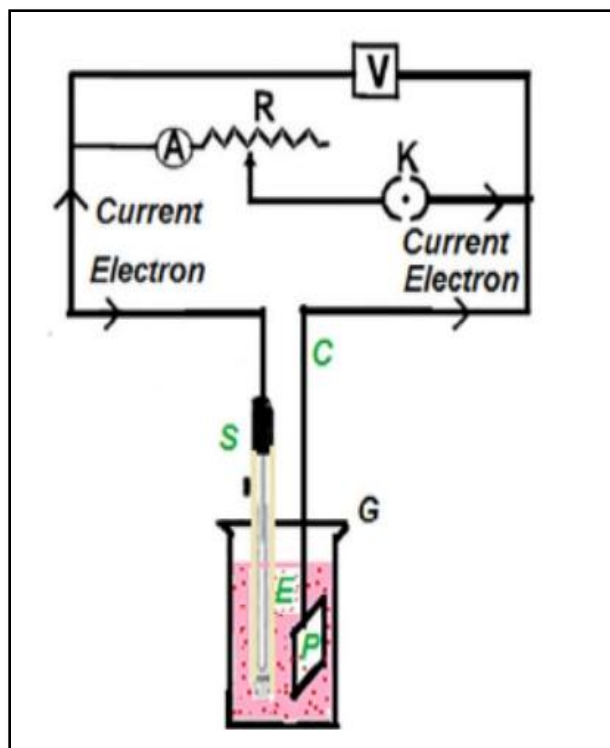


TABLE: 1.1, SHOWING EFFECTS OF VARIATION OF TARTRAZINE (DYE) CONCENTRATION ON ELECTRICAL OUTPUT OF PHOTOGALVANIC CELL.

Concentration	Cell Parameter					
(Tartrazine×10 ⁻⁵ M)	Photo potential (mV)	Photocurrent (μA)	Power (μW)	C.E.	F.F.(□)	t _{0.5} (min)
1.70	930.00	496.00	461.28			
1.84	945.00	418.00	395.10			
1.98	712.00	939.00	668.56	6.42	0.48	185.0
2.72	1008.00	440.00	443.52			
2.85	925.00	423.00	391.27			

At D-fructose = 2.22×10⁻³ M, L.G. = 2.30×10⁻³ M, temp.=311.55 K, pt electrode area=1.0×1.0 cm², Light intensity =10.4mW cm⁻², diffusion length, D_L=4.5 cm, pH=12.18.

TARTRAZINE-D-FRUCTOSE-L.G. SYSTEM

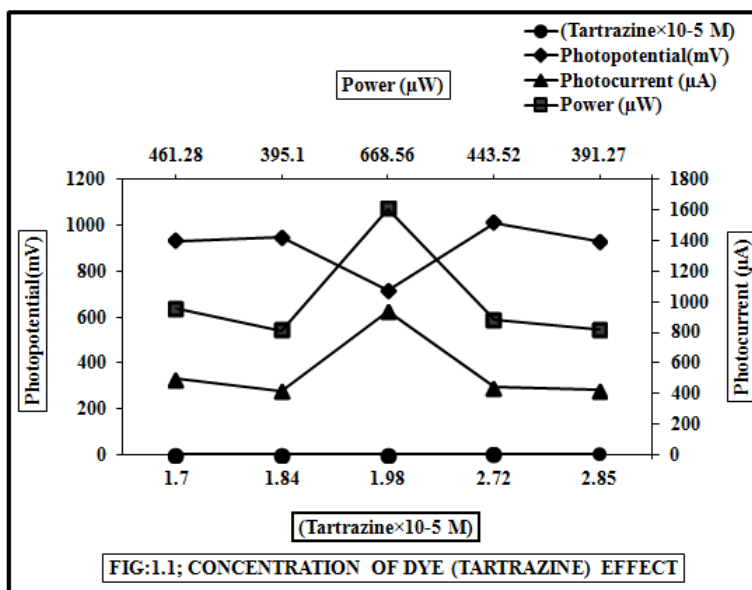


TABLE: 2.1, SHOWING EFFECTS OF VARIATION OF D-FRUCTOSE CONCENTRATION ON ELECTRICAL OUTPUT OF PHOTOGALVANIC CELL.

Concentration	Cell Parameter					
(D-fructose×10 ⁻³ M)	Photo potential (mV)	Photocurrent (μA)	Power (μW)	C.E.	F.F.(□)	t _{0.5} (min)
1.18	985.00	342.00	336.87			
2.00	947.00	410.00	388.27			
2.22	712.00	939.00	668.56	6.42	0.48	185.0
2.24	1096.00	373.00	408.80			
2.26	918.00	380.00	348.84			

At (Dye) Tartrazine×10⁻⁵M, L.G.=10⁻³ M, temp.=311.55 K, pH=12.18, Light intensity =10.4mW cm⁻², diffusion length, D_L=4.5 cm, Pt electrode area=1.0×1.0 cm²

TARTRAZINE-D-FRUCTOSE-L.G. SYSTEM

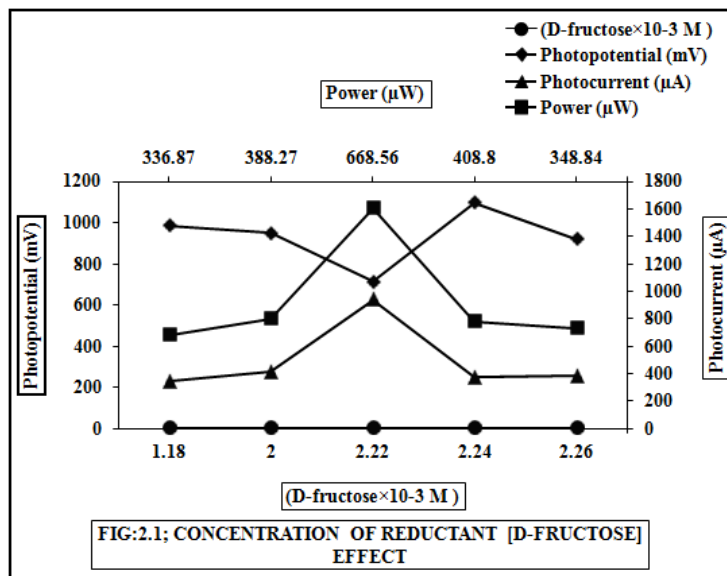


FIG:2.1; CONCENTRATION OF REDUCTANT [D-FRUCTOSE] EFFECT

TABLE: 3.1, SHOWING EFFECTS OF VARIATION OF LAURYL GLUCOSIDE (L.G.) CONCENTRATION ON ELECTRICAL OUTPUT OF PHOTOGALVANIC CELL.

Concentration (L.G. × 10 ⁻³ M)	Cell Parameter					
	Photo potential (mV)	Photocurrent (µA)	Power (µW)	C.E.	F.F. (%)	t _{0.5} (min.)
2.10	698.00	756.00	527.68			
2.20	623.00	843.00	525.18			
2.30	712.00	939.00	668.56	6.42	0.48	185.0
2.40	695.76	765.00	531.67			
2.50	736.00	432.00	317.95			

At (Dye) Tartrazine × 10⁻⁵ M, D-fructose = 2.22 × 10⁻³ M, temp. = 311.55 K, pt electrode area = 1.0 × 1.0 cm², Light intensity = 10.4 mW cm⁻², diffusion length, D_L = 4.5 cm, pH = 12.18.

TARTRAZINE-D-FRUCTOSE-L.G.-SYSTEM

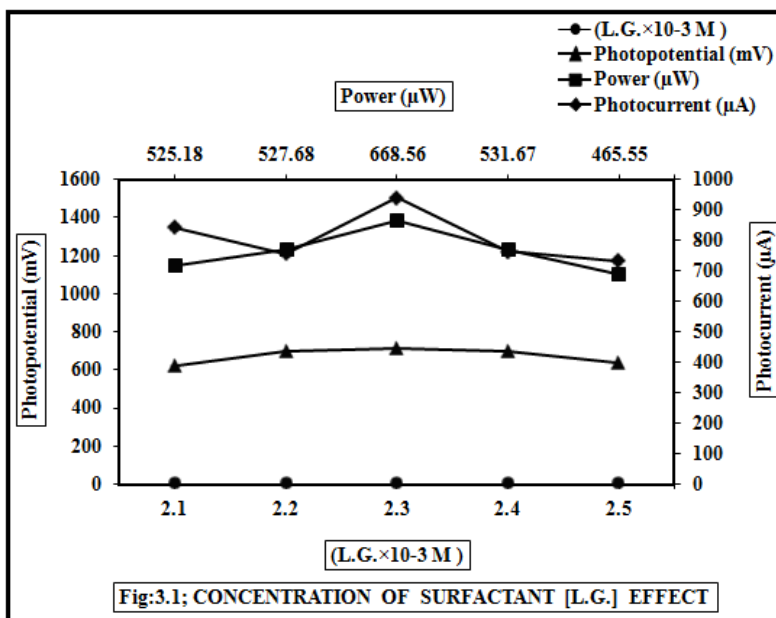


Fig:3.1; CONCENTRATION OF SURFACTANT [L.G.] EFFECT

TABLE: 4.1; SHOWING EFFECTS OF VARIATION OF NAOH (PH) CONCENTRATION ON ELECTRICAL OUTPUT OF PHOTOGALVANIC CELL.

pH	Cell Parameter					
	Photo potential (mV)	Photocurrent (μA)	Power (μW)	C.E.	F.F.(\square)	$t_{0.5}$ (min.)
12.11	572.00	768.00	439.29			
12.15	587.00	786.00	461.38			
12.18	712.00	939.00	668.56	6.42	0.48	185.0
12.25	697.00	815.00	568.05			
12.32	615.00	663.00	407.75			

At (Dye) Tartrazine $\times 10^{-5}\text{M}$, D-fructose = $2.22 \times 10^{-3}\text{M}$, temp.=311.55 K, pt electrode area= $1.0 \times 1.0\text{ cm}^2$, Light intensity = 10.4mW cm^{-2} , diffusion length, $D_L=4.5\text{ cm}$, pH=12.18, L.G.= $2.30 \times 10^{-3}\text{ M}$.

TARTRAZINE-D-FRUCTOSE-L.G. SYSTEM

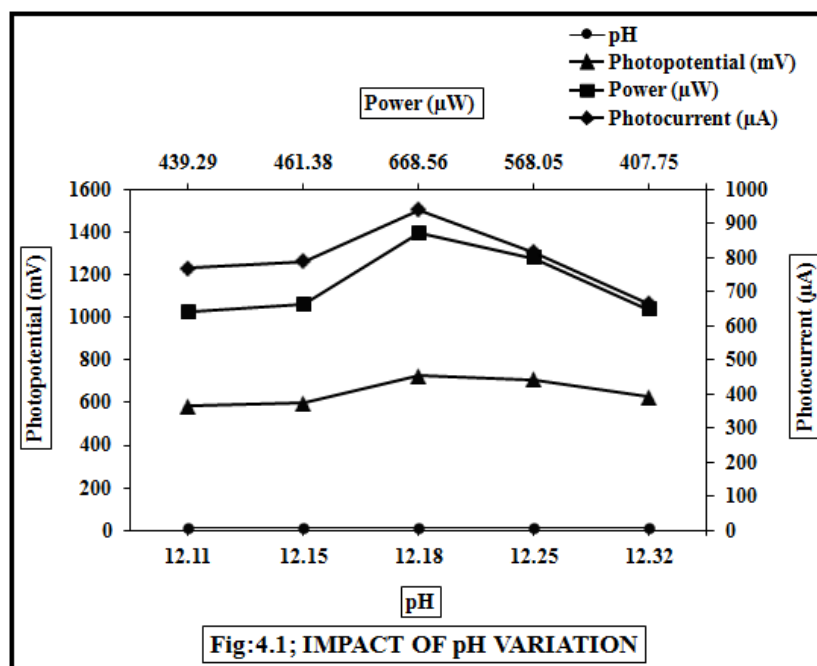


TABLE: 5.1, SHOWING EFFECTS OF DIFFUSION LENGTH ON ELECTRICAL OUTPUT OF PHOTOGALVANIC CELL

Diffusion Length (DL)	Maximum Photocurrent i_{max} (μA)	Equilibrium Photocurrent i_{eq} (μA)	Rate of initial Generation of Current ($\mu\text{A min}^{-1}$)
25.0	1300.0	1280.0	44.04
30.0	1313.0	1263.0	44.11
35.0	1325.0	1242.0	45.23
40.0	1328.0	1223.0	45.42
45.0	1334.0	1195.0	45.53

At Dye Tartrazine $\times 10^{-5}\text{M}$, D-fructose = $2.22 \times 10^{-3}\text{ M}$, temp.=311.55 K, pt electrode area= $1.0 \times 1.0\text{ cm}^2$, Light intensity = 10.4mW cm^{-2} , diffusion length, $D_L=4.5\text{ cm}$, pH=12.18, L.G.= $2.30 \times 10^{-3}\text{ M}$.

TARTRAZINE-D-FRUCTOSE-L.G.SYSTEM

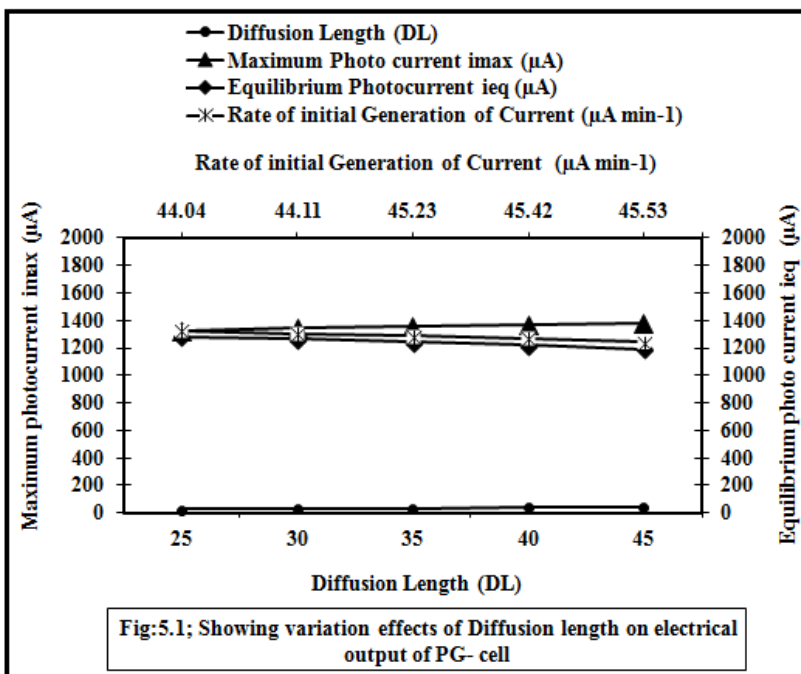


Fig.5.1; Showing variation effects of Diffusion length on electrical output of PG- cell

TABLE: 6.1; SHOWING EFFECTS OF ELECTRODE AREA ON ELECTRICAL OUTPUT OF PHOTOGALVANIC CELL

Electrode Area (cm ²)	Electrode Area (cm ²)	
	Maximum Photocurrent i_{max} (μA)	Equilibrium Photocurrent i_{eq} (μA)
0.3	1327	1230
0.4	1342	1263
0.5	1363	1280
1.0	1380	1305
1.1	1387	1323

At Dye Tartrazine $\times 10^{-5} M$, D-fructose = $2.22 \times 10^{-3} M$, temp.=311.55 K, Pt electrode area= $1.0 \times 1.0 \text{ cm}^2$, Light intensity = 10.4 mW cm^{-2} , Diffusion length, $D_L = 4.5 \text{ cm}$, pH=12.18, L.G.= $2.30 \times 10^{-3} M$

FIG:-6.1; SHOWING VARIATION EFFECT OF ELECTRODE AREA ON CURRENT PARAMETERS OF TARTRAZINE-D-FRUCTOSE -LAURYL GLUCOSIDE PG-CELL SYSTEM.

TARTRAZINE-D-FRUCTOSE-L.G. SYSTEM

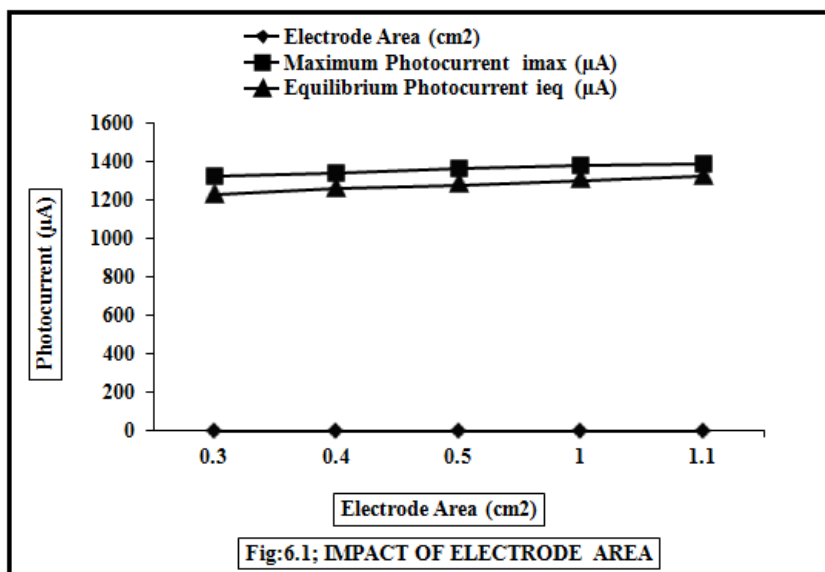


Fig:6.1; IMPACT OF ELECTRODE AREA

**TABLE: 7.1; SHOWING CURRENT- VOLTAGE (I-V) CHARACTERISTICS OF THE PHOTOGALVANIC CELL:
CHARGING TIME: - 45 MINUTE, BULB ON TIME (I-V) CHARACTERISTICS PROCESS**

Potential (mV)	Photocurrent (μA)	Power point (μW)	Fill-factor (η)
1130	0.0	0	
1111	5.0	5.555	
1095	15.0	16.425	
1074	30.0	32.220	
1068	45.0	48.060	
1053	55.0	57.915	
1046	65.0	67.990	
1031	85.0	87.635	
998	95.0	94.810	
972	109.0	105.948	
969	146.0	141.474	
953	184.0	175.352	
934	261.0	243.774	
905	272.0	246.160	
886	342.0	303.012	
862	415.0	357.730	
846	552.0	466.992	
829	672.0	557.088	
801	741.0	593.541	
777	794.0	616.938	
734	823.0	604.082	
712 (Vpp)	939.0 (ipp)	668.568 (Ppp)	0.4806
659	1005.0	662.295	
614	1012.0	621.368	
575	1023.0	588.225	
564	1049.0	591.636	
540	1120.0	604.800	
462	1149.0	530.838	
413	1178.0	486.514	
375	1193.0	447.375	
344	1228.0	422.432	
253	1230.0	309.960	
142	1231.0	174.802	
0.0	1232.0	0.0	

TARTRAZINE-D-FRUCTOSE-L.G.SYSTEM

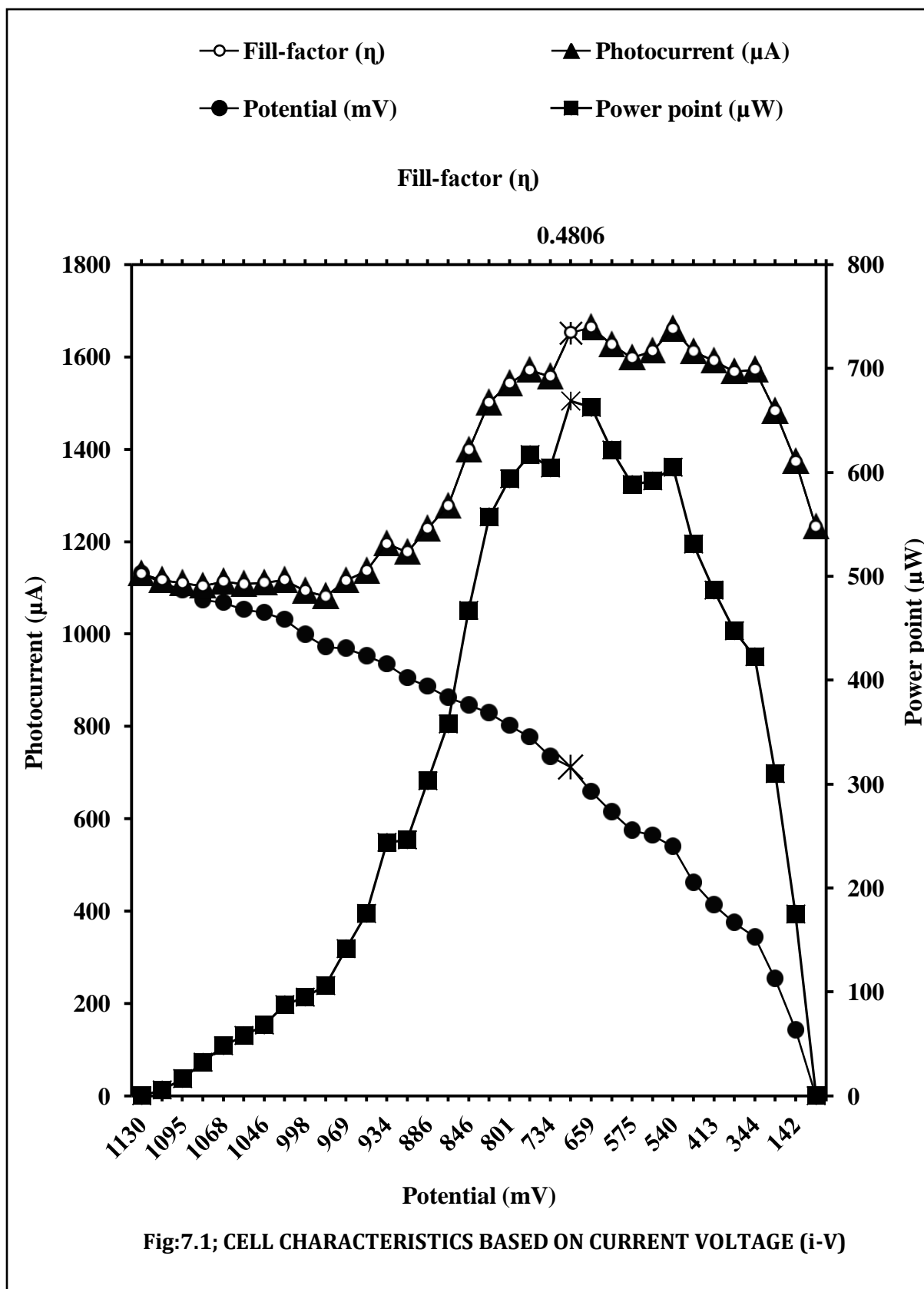


Fig:7.1; CELL CHARACTERISTICS BASED ON CURRENT VOLTAGE (i-V)

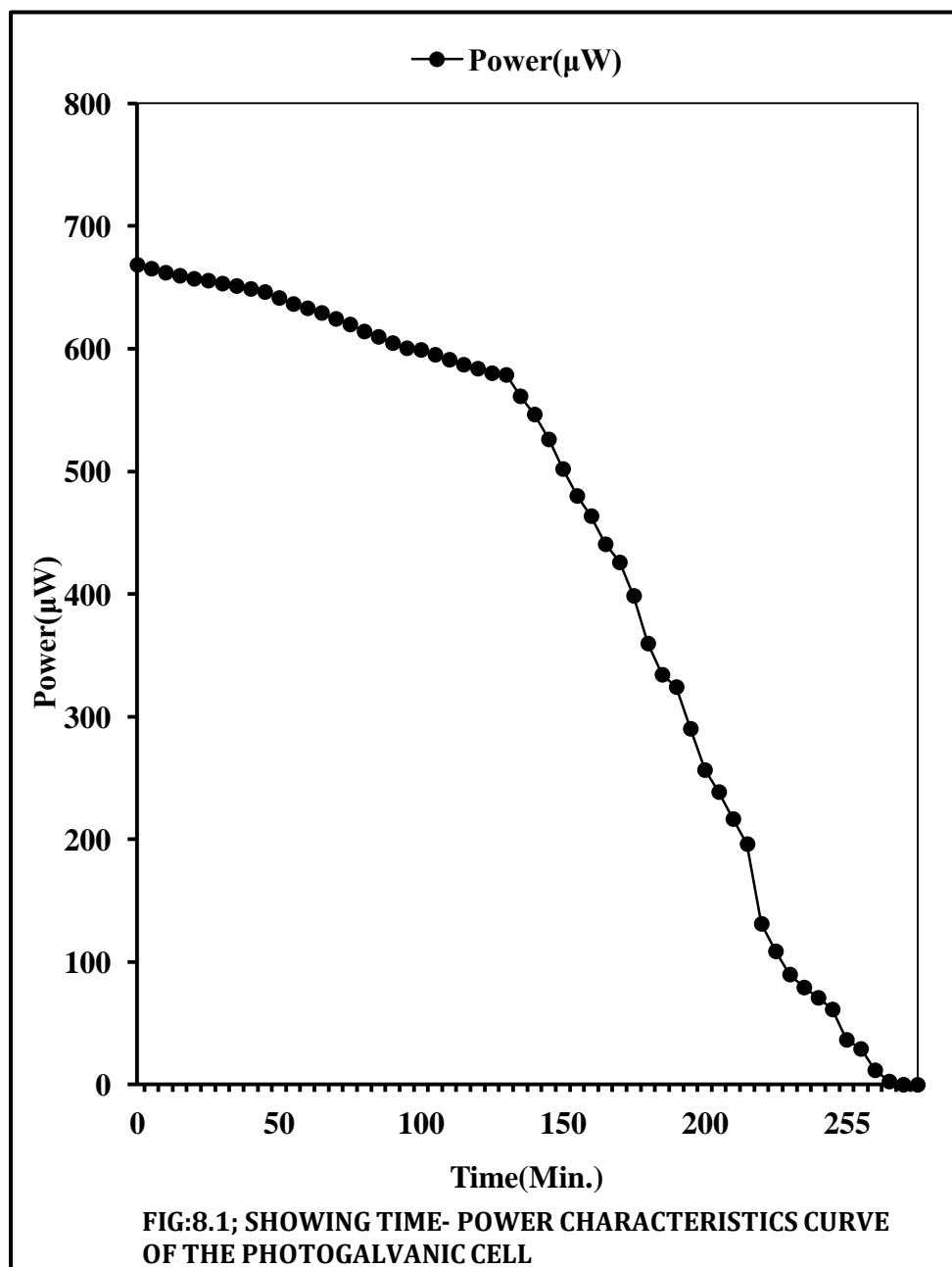
TABLE: 8.1, SHOWING TIME- POWER CHARACTERISTICS OF THE PHOTOGALVANIC CELL:

Performance time of the Photo galvanic-cell:-185 Minute, At Bulb off time performance of the Photo galvanic cell characteristics process mention in the table:-

Time(Min.)	Power (μ W)
0.0	668.56
0.5	665.40
10.0	662.13
15.0	659.67
20.0	657.18
25.0	655.65
30.0	653.26
35.0	651.29
40.0	648.90
45.0	646.39
50.0	641.51
55.0	636.62
60.0	633.11
65.0	629.33
70.0	624.47
75.0	619.92
80.0	614.21
85.0	609.83
90.0	604.74
95.0	600.54
100.0	599.13
105.0	595.23
110.0	591.17
115.0	587.12
120.0	583.89
125.0	580.22
130.0	578.82
135.0	561.37
140.0	546.51
145.0	526.22
150.0	502.09
155.0	480.11
160.0	463.68

165.0	440.74
170.0	425.90
175.0	398.65
180.0	359.78
185.0 (t_{0.5})	334.32 (P_{0.5})
190.0	324.29
195.0	290.27
200.0	256.62

TARTRAZINE- D-FRUCTOSE - L.G. - SYSTEM



CONCLUSION

On the basis of observed results, we are concluded that the

single surfactant affected photogalvanic cell more than mixed surfactant. The single surfactant has not only enhanced the conversion efficiency but storage capacity of

photo galvanic cells also an exhaustive efforts still have the scope to enhance electrical output as well as storage capacity of photogalvanic cells along with reduction in their cost to get commercial viability. The conversion efficiency, $t_{1/2}$ and fill factor are recorded as 6.42%, 185.0 min. and 0.48 respectively in PG system.

ACKNOWLEDGMENT

Authors are thankful to Head, Department of Chemistry J.N.V. University Jodhpur for providing necessary facilities.

REFERENCES

1. Rideal E.K. and Williams D.C., The action of light on the ferrous iodine iodide equilibrium. *J. Chem. Soc.*, **127**, 258 (1925)

2. Rabinowitch E., The photogalvanic effect I: The photochemical properties of the thionine-iron system. *J. Chem. Physics.*, **8(7)**, 551 (1940)

3. Rabinowitch E., The photogalvanic effect II: The photogalvanic properties of the thionine-iron system. *J. Chem. Physics.*, **8(7)**, 560 (1940)

4. Potter A.C. and Thaller L.H., Efficiency of some iron thionine photogalvanic cell. *Solar Energy.*, **3 (4)**, 1 (1959)

5. Peter D., David R., Hobart N., Litchin N., Dale E., Hall A., John and Eckert, Sensitization of an iron-thiazinaphotogalvanic cell to the blue: An improved match to the insolation spectrum. *Solar Energy.*, **19(5)**, 567 (1970)

6. Hall D.E., Wildes P.D. and Lichtin N.N., Electrode phenomena at the anode of the totally illuminated, thin layer iron-thionine photogalvanic cell. *J. Electrochem. Soc.* **125(9)**, 1365 (1978)

7. Shigehara K., Nishimura M. and Tsuchida E., Photogalvanic effect of thin layer photo cell composed of thionine/Fe (II) systems. *Electrochem Acta.* **23(9)**, 855 (1978)

8. Nasielski J., A. Kirsch-De Mesmaeker and Leempoel P., The photoelectrochemistry of the RhodamineBhydroquinone system at optically transparent bubbling gas electrodes. *Electrochim Acta.* **23(7)**, 605 (1978)

9. Ameta S.C., Khamesra S., Chittora A.K. and Gangotri K.M., Used of sodium Lauryl sulphate in a photogalvanic cell for solar energy conversion and storage: methylene blue -EDTA system. *Int. J. Ene. Res.*, **13(6)**, 643(1989)

10. Dube S., Lodha A., Sharma S.L. and Ameta S.C., Use of an Azur-A-NTA system in a photogalvanic cell for solar energy conversion. *Int. J. Ene. Res.*, **17(5)**, 359-(1978)

11. Gangotri K.M., Meena R.C. and Meena R., Use of miscelles in photogalvanic cells for solar energy conversion and storage: cetyl trimethyl ammonium bromide-glucose-toluidine blue system. *J. Photochem. Photobio. A: Chemistry*, **123(1)**, 93(1999)

12. Gangotri K.M. and Meena R.C., Use of reductant and photosensitizer in photogalvanic cell for solar energy conversion and storage: oxalic acid - Methylene blue system, *Journal of Photochemical and Photobiological A: Chemistry*, **141(2)**, 175 (2001)

13. Genwa K.R. and Gangotri K.M., Comparative studies in anionic cationic and non-ionic surfactant in photogalvanic cells for solar energy conversion and storage. Point of view: Nitritoltriacidic-Azur B system. *J.Indian Chem.Soc.*, **81(7)**, 592 (2004)

14. Meena R.C., Singh G., Tyagi N. and Kumari M., Studies of surfactants in photogalvanic cells-NaLS -EDTA and Azur- B. *J.Chem.Soc.*, **116(3)**, 179 (2004)

15. Gangotri P. and Gangotri K.M., Studies of the Micellar Effect on Photogalvanics: Solar Energy Conversion and Storage-EDTA-Safranin O-TWEEN-80 System. *Ara. J. Sci. Eng.*, **35(1A)**, 19 (2010)

16. Bhimwal M.K. and Gangotri K.M., A Comparative Study on the performance of photogalvanic cell with different photosensitizers for solar energy conversion and storage: D-Xylose-NaLS systems. *Energy*, **36**, 1324 (2011)

17. Genwa K.R. and sagar C.P., Role of Carmine in Tween 60 - Ascorbic Acid System for Energy Conversion. *Re. J.Recent Sci.*, **1(ISC-2011)**, 62 (2012)

18. Genwa K.R. and Chouhan Anju, Optimum efficiency of photogalvanic cell for solar energy conversion and storage containing Brilliant Black PN-Ammonium lauryl Sulphate-EDTA system. *Re. J. Recent Sci.*, **1(ISC-2011)**, 117 (2012)

19. Chandra Mahesh and Meena R.C., Role of Photo Sensitizer-Reductant for Generation of Electrical Energy in Photo galvanic Cell. *Res. J. Recent Sci.* **1(1)**, 63 (2011)

20. Saxena Manmeeta, Sharma G.D. Dhiraj, and Roy M.S., Improved performance of oxidized Alizarin based Quasi solid-state Dye Sensitized solar cell by surface Treatment. *Res. J. Recent Sci.* **2(2)**, 61 (2012)

21. Ozuomba J.O., Edebeatu C.C., Opara M.F., Udoye M.C. and Okonkwo N.A., Performance of a Solar Water Distillation Kit fabricated from Local materials. *Res. J. Recent Sci.* **2(3)**, 64 (2012)

22. Deshannavar U.B. Murgod A.A., Golangade M.S., Koli P.B., Banerjee Samyak and Naik N.M., Photo-Oxidation Process, Application for Removal of color from Textile Industry Effluent. *Res. J. Chem. Sci.*, **2(10)**, 75 (2012)

23. Genwa K.R. and Sagar C.P., Photoelectrochemical Conversion of Solar Energy Tween 60- Bromocresol Purple. *Int. J. Ene. Sci.*, **1(3)** 169 (2011)

24. Gunsaria R.K. and Meena Ram Narayan, Studies of Cationic Micelles on Photogalvanic Cells for Solar Energy Conversion and Storage. *Int. J. Bio. and Applied Chem. Sci.*, **2(1)**, 77 (2012)

25. Nair Smita, A Study of Transition Metal Complex of Diuretic Drug and study of its Phyco-chemical properties as Potential Therapeutic Agent. *Res. J.*

Recent Sci., **1(ISC-2011)**, 341 (2012)

26. Mohan Lal and Gangotri K.M. A Comparative study the performance of photogalvanic cells with mixed surfactant for solar energy conversion and storage: D- Xylose – Methylene Blue system. *Res. J. Recent Sci.* **2(12)**, 19, (2013)

27. Gangotri KM, Lal Mohan. Study of photogalvanic effect in photogalvanic cell with mixed surfactant for solar energy conversion and storage. *Res. J. Chem.Sci.*, **3(3):20** (2013)

28. Lal Mohan, Gangotri KM. Study on the Performance of photogalvanic cell with mixed surfactant for solar energy conversion and storage. *Res. J. Recent Sci.*, **(isc2012)**, 76 (2013)

29. Rathore Jayshree and Lal Mohan, Studied on Study of photogalvanic effect in photogalvanic cell containing single surfactant as DSS, tartrazine as a photosensitizer and EDTA as reductant for solar energy conversion and storage, *Res. J. Chem. Environ.*, **22 (6)** 53 (2018)

30. Rathore Jayshree, Pareek Rajesh Kumar and Singh Kewal Significance of Aniline blue in liquid phase dye sensitized Photo Galvanic cell for Solar power generation and Storage by using Ascorbic acid and Sodium Lauryl Sulphate chemicals, *Res. J. Chem. Environ.*, **26(3)** 45 (2022)



IMPACT OF FOOD PHOTOGRAPHY ON CONSUMER BEHAVIOR TOWARDS ONLINE FOOD DELIVERY SERVICES

DR. RANJEETA MADHWANI

GUEST FACULTY, DEPT. OF MANAGEMENT STUDIES, JAI NARAYAN VYAS UNIVERSITY, JODHPUR.

DR. PRIYANKA DAYA CHOUDHARY

ASSISTANT PROFESSOR, FACULTY OF COMMERCE, PACIFIC ACADEMY OF HIGHER EDUCATION AND RESEARCH UNIVERSITY, UDAIPUR.

ABSTRACT:

The online food industry has seen tremendous growth in recent years. The consumer behaviour towards food services has also changed to a great extent. What can be more convenient than just to click luscious cuisine and get it delivered at doorstep. The delicious image of double-cheese pizza loaded with extra cheese toppings or dum biryani in golden bowl or the visual of kadai paneer with roasted paneer cube often makes mouth water and stimulates appetite. The mouth-watering food pictures create visual appeal and tempts consumer to place prompt orders. Further in online food ordering, food images draw consumer's attention and help them to understand the product to place orders conveniently. Therefore, it is imperative for online food service providers to include food photographs in their menu list and make it impressive. The present study contributes to the literature by investigating the impact of food photographs on consumer behaviour. The focus of study is to carefully explore the relationship between food photos and consumer behaviour in online food delivery services. The research findings based upon the data collected from respondents indicate that consumer prefer viewing food photos present in menu list than reading the text-based menu. Researcher observed that food pictures present in menu list influence the consumer's intent to order and have direct impact on consumer's buying behaviour in online food delivery services.

KEYWORDS:

FOOD PHOTOGRAPHY, FOOD DELIVERY APPS, VISUAL APPEAL, CONSUMER BEHAVIOR.

INTRODUCTION:

The tremendous growth in smart phone owners, digital wallets and convenient any time anywhere shopping has given boost to online shopping. The rapid growth of e-commerce has increased the expectations of consumers in last decade. Today's consumers look beyond and wish their deals to be end with overall exciting and delighted shopping experience. The rapid change in digital technology has brought significant changes in food delivery business. Most of the brick and mortar restaurants provide online delivery services and now the share of online orders is overriding their overall orders.

"A picture is worth than thousand words", is an old saying. Images and pictures have been a part of our societies from long ago. Images have visual appeal that affects our decisions. Restaurants usually print food pictures in their menu to create confidence and trust among their customer. An impressive and good photography plays a very significant role in online food delivery services. It is the visual appeal which assures consumer that the product would match and meet their need when it will reach their doorstep.

When it comes to delivery of food online, service providers have to face various challenges to meet the consumer expectations. Consumers can't touch, smell and taste the food while placing order. Menu present on service apps or websites have to be tempting and informative to get more

orders in food industry. Eyes sense the flavours before tongue taste the food. Mouth -watering food photographs can activate visual hunger. It is the food picture that creates an idea for a customer that how their product would taste and satisfy their hunger needs for a particular cuisine. To catch consumers' attention it becomes imperative for service providers to enrich their menu list with tempting food photos to increase conversions.

Online food delivery apps and websites should be appealing so as to stimulate consumers' appetite and make their mouth water to get more orders.

Food not only satisfy the basic hunger need of humans but is goes beyond and it represents our culture, societal values, group identity and cohesion. The increased use of social media and restaurants becoming digitalized the role of food photographs becomes imperative and their use has to be refined. The present work is performed to study the impact of food photographs present in menu list on consumer behaviour while ordering food online. The research study is an attempt to understand and explore how the photograph based menu effect consumer's intent and decisions to buy food online.

THE RESEARCH PROBLEM

In recent years, online food delivery industry is growing so fast. Every service provider looks for including some unique content on their apps or websites to increase their

conversion rates.

Researcher identifies that food photo in menu list can draw consumers' attention and help service providers to get more orders. Therefore, the researcher in the present study makes an attempt to understand the impact of food photography on consumer behaviour towards online food delivery services.

OBJECTIVES OF THE RESEARCH

The present study has been performed keeping the following objectives in consideration:

1. To understand the importance of food photography on consumer behavior
2. To compare and analyze the impact of photo-based and text-based menu on consumer behavior
3. To determine the effect of food pictures on consumer's unplanned and unintended orders
4. To know the importance of food photos that help consumer to buy more and repeat the orders.
5. To understand the role of food photos in helping consumers to place online orders

REVIEW OF LITERATURE

Liu, Hongbo & Feng, Shunzi & Hu, Xingbao (2022) explored the importance of photos posted by users in review section. They studied the role of two types of food pictures – process focused and outcome focused photos on consumer buying behaviour. The two experiments performed in their research investigated that process focused food images resulted in more conversions as compared to outcome focused images. Consumers were motivated by process focused photo reviews as these reviews build trust and provide practical assessment of the food.

The study was performed with the objective of examining the role of food photos and associated calorie information on consumer behaviour by **Gunden, N., Morosan, C. and DeFranco, A. (2021)**. Their study explored very interesting fact that consumer behaviour of giving tip to delivery boy is influenced by calorie information on website or service app. Further their study also revealed the relationship between conversion rate and food pictures showing enjoyed by people. Their study concluded that food pictures that shows people enjoying have greater influence and trigger purchase decisions than those pictures that simply shows food only.

Meersseman E, Geuens M, Vermeir I. (2021), presented their views on food photos showing bite in it. Their investigation revealed that the photos that have bite effects consumer behaviour. Their study highlights the very interesting concept of cautious use food images having bite on websites or apps. Though food photos having bits effects consumer intent to pay but sometimes these pictures create hate as a result of psychological mental feeling of food being contaminated.

G, Raghu.(2021), highlights the effect of food photos on consumer buying behaviour. The study reveals the food photos as being an important part of website content. The present work suggests that high quality and attractive pictures are retained for longer time by consumers and have greater impact on their buying behaviour.

Sherly Christivanny Lie. (2018) performed the study to understand the relationship between food photos and consumer's consumption behaviour. The research was performed upon young people of 18-29 years of age. The eight respondents were interviewed and to explore more a photo based method photo-elicitation was performed upon them. In their research, Lie found that there is a positive relationship between consumer's consumption behaviour and food photography. The study recommends to think from the consumer's perspective and to increase conversions; the website content should be enriched with high quality photographs.

In their study, **Li, X. & Wang, M. & Chen, Y. (2014)**, used image processing techniques to examine the effects of product images on consumer buying behaviour. This technique helped the researchers to analyze large number of image features and their effects on consumer's intent to buy products online. This study reveals the various photo characteristics that induces and strengthens consumer attachment to the product.

GAP IDENTIFIED

Considering the above literature, it is identified that researchers have taken keen interest in understanding online consumer behaviour. The previous studies focused upon the features of product images however limited literature contribute to the understanding of food photos present in menu list of online food service providers. Most of the work talks about visual appeal in e-commerce. Some literature highlights the importance of product photographs and its impact on online consumer buying behaviour. The researcher tries to fill this gap and tries to understand the role and importance of menu with food images and their impact on consumer behaviour in online food delivery services.

RESEARCH HYPOTHESIS

H₀₁: There is no impact of photo-based menu on consumer's intention to place online order.

H₀₂: Consumer does not prefer viewing photo-based menu than reading text-based menu while ordering food online

H₀₃: There is no effect of food pictures on consumer's unplanned and impulsive orders

H₀₄: Food pictures does not make consumer's ordering procedure convenient and easy
H₀₅: Photo-based menu do not help in comparing the menu of different service providers

RESEARCH DESIGN

A structured questionnaire in Google form was created to collect the data. Closed type questions were asked from respondents based on frequency rating scale some binary

questions were also asked.

SAMPLE

A sample of 70 respondents using random sampling method was selected from Jodhpur and Udaipur Districts.

DATA ANALYSIS AND INTERPRETATION TABLE NO. 1: PROFILE OF RESPONDENTS

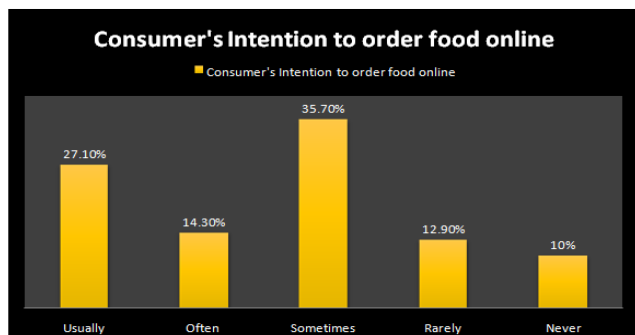
Gender	Male	50.9%
	Female	49.1%
Age	18-30	62.3%
	31-45	37.7%
	46-60	0%
	61& above	0%
Profession	Student	66.7%
	Employee	24.6%
	Self-employed	8.8%
	Homemaker	0%

Around equal percentage of male and female respondents were representing the sample randomly selected for our study. Out of total respondents 51% were male and 49% were female. Most of the respondents (62.3%) belonged to 18-30 years of age and 37.7% were between the 31 to 45 years of age. However no respondent above 46 years was representing our sample for study. Most of the respondents participated in our study were students. 24% were employees and 9% were self-employed.

TABLE NO. 2: IMPACT OF PHOTO-BASED MENU ON CONSUMER'S INTENTION TO ORDER FOOD ONLINE

Impact on Consumer's Intention	No. of Respondents	(%)
Usually	19	27.1
Often	10	14.3
Sometimes	25	35.7
Rarely	9	12.9
Never	7	10

GRAPH NO. 1: IMPACT OF PHOTO-BASED MENU ON CONSUMER'S INTENTION TO ORDER FOOD ONLINE



FINDINGS:

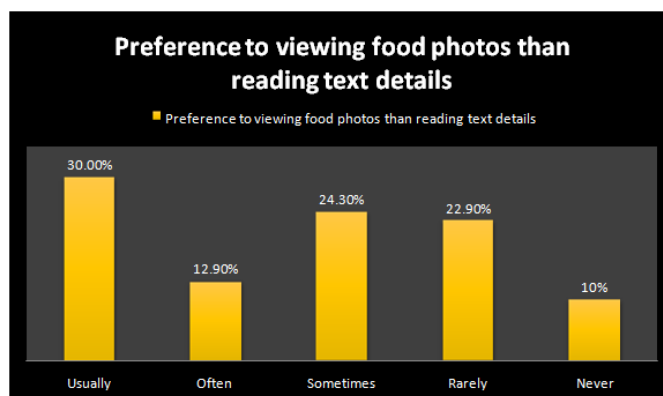
Out of 70 respondents 19 responded that photo-based menu usually impact their intentions to order food online. Most of the responded agreed that photo-based menu has impact on their buying behaviour.

Hence, we reject H_{01} and conclude that photo-based menu impact consumer's intention to place online order.

TABLE NO.3: PREFERENCE OF VIEWING FOOD PHOTO OVER READING TEXT DETAILS

Impact on Consumer's Intention	No. of Respondents	(%)
Usually	21	30
Often	9	12.9
Sometimes	17	24.3
Rarely	16	22.9
Never	9	10

GRAPH NO.2: PREFERENCE OF VIEWING FOOD PHOTO OVER READING TEXT DETAILS



FINDINGS:

It is clearly shown in the above graph that 30% of total respondents usually prefer viewing photo-based menu than reading text-based details. Only 10% responded that they rarely prefer photo-based menu over text details.

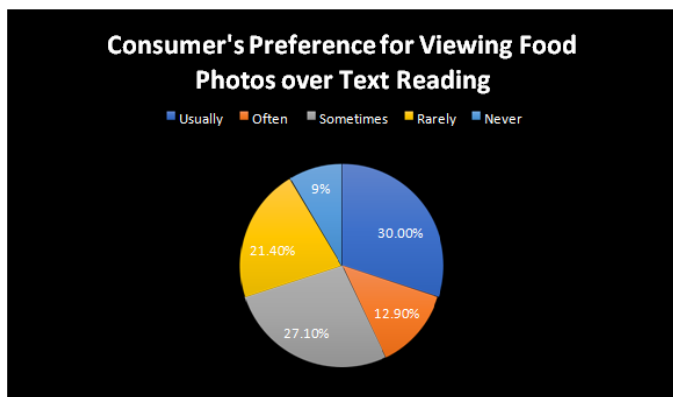
Hence H_{02} is rejected and alternative is accepted that consumer prefer viewing photobased menu than reading text-based menu while ordering food online.

TABLE NO.4: ORDERING FOOD BECAUSE FOOD PHOTOS ARE TEMPTING

Impact on Consumer's Intention	Respondents	(%)
Usually	21	30
Often	9	12.9
Sometimes	19	27.1

Rarely	15	21.4
Never	6	8.6

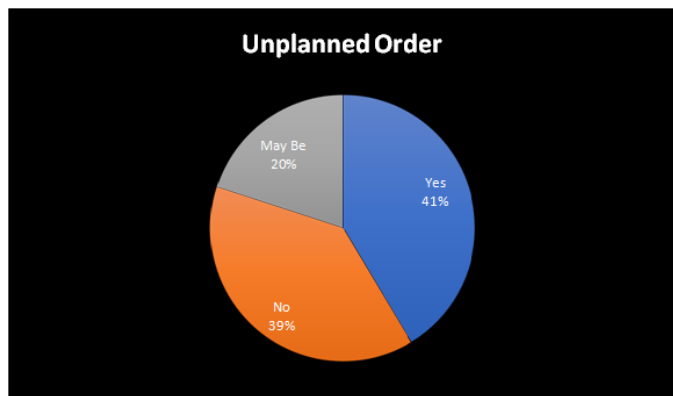
GRAPH NO.3: ORDERING FOOD BECAUSE FOOD PHOTOS ARE TEMPTING



FINDINGS:

30% respondents agreed that they usually order food just because the food photos are tempting. 12% respondents often order food after viewing tempting food photos in menu. Whereas 9% of the respondents said that they never placed any impulsive order because of mouth-watering food photos.

GRAPH NO.4: CONSUMER'S UNPLANNED AND UNINTENTIONAL ORDER BECAUSE THE FOOD PHOTOS WERE TEMPTING:

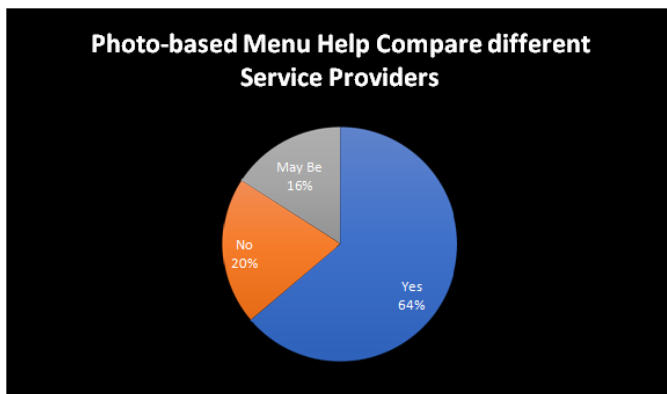


FINDINGS:

41% of the total respondents placed unplanned orders after viewing tempting food photographs whereas 39% never did the same. However 20% of the respondents were not sure about whether they ever ordered unplanned food because of tempting food photos present in menu list.

Therefore we reject H_{04} and accept the alternative hypothesis that food pictures have effect on consumer's unplanned orders.

GRAPH NO. 5: PHOTO-BASED MENU MAKES EASY TO COMPARE DIFFERENT SERVICE PROVIDERS

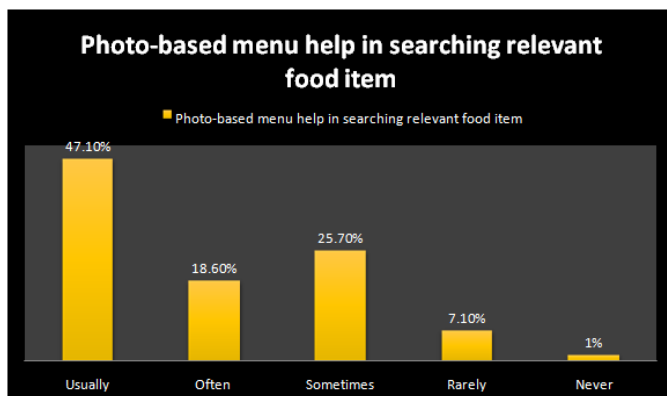


FINDINGS:

It can be seen in the above graph that maximum number of respondents (64%) agreed that photo-based menu helps in comparing the menu of different service providers. However 16% of respondents were not sure about it.

Hence we reject the null hypothesis H_{05} and accept the alternative that photo-based menu help in comparing the menu of different service providers.

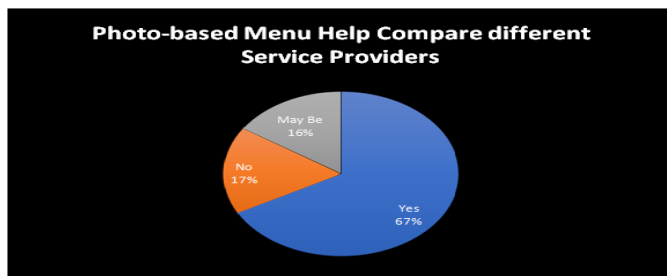
GRAPH NO.6: MENU WITH PHOTOS HELP IN SEARCHING THE RELEVANT FOOD ITEM EASILY



FINDINGS:

47% respondents usually feel that photo-based menu help them in searching the relevant food item. Only 7% of respondents rarely and 1% never experienced the same. Around 26% respondents sometimes experienced that in searching the relevant food item photo-based menu is helpful.

GRAPH NO. 7: PHOTO BASED MENU HELPS IN REMEMBERING THE RESTAURANT EASILY



FINDINGS:

67% respondents remember the restaurants because of their photo-based menu. 17% respondents denied over this question. Only 16% of respondents were unable to recall and were not sure about it.

On the basis of findings of graph no.6 & 7, null hypothesis H₀₄ is rejected and alternative is accepted that food pictures make consumer's ordering procedure convenient and easy.

CONCLUSION

"Content is King", and when it comes to online food delivery services food photos are superiors to all kings. When consumer order food online, food photos play very important role. Photo based menu not only draws consumer's attention but induces their appetite also. It affects consumer behaviour towards online delivery apps and websites. Photographs help in reproducing the actual image of the food and build trust among consumers. Photo based menu also help consumers to remember the restaurant easily. It is observed that consumer usually prefer viewing photos than reading the text details. Photo-based menu not only helps consumer in comparing the menu of different service providers but also make their ordering procedure convenient and easy.

Thus, it is recommended that food service providers should design their apps and websites as appealing as their brick and mortar restaurants. Food image that does not match with product details should be avoided. The photos which are either too small or technically poor will not result in good. In order to encourage their sales the necessary details along with food photos should be added up. The high quality clear food images with short description should be included in menu to stimulate the consumer's appetite.

REFERENCES

1. Liu, Hongbo & Feng, Shunzi & Hu, Xingbao. (2022). Process vs. outcome: Effects of food photo types in online restaurant reviews on consumers' purchase intention.

International Journal of Hospitality Management. 102. 103179.

10.1016/j.ijhm.2022.103179.

2. Gunden, N., Morosan, C. and DeFranco, A. (2021), "Are online food delivery systems persuasive? The

impact of pictures and calorie information on consumer behavior", Journal of Hospitality and Tourism Insights, Vol. 4 No. 4, pp. 457472. <https://doi.org/10.1108/JHTI-07-2020-0127>

3. Meersseman E, Geuens M, Vermeir I. (2021), "Take a Bite! The Effect of Bitten Food in Pictures on Product Attitudes, Purchase Intentions, and Willingness to Pay." Foods. 2021 Sep 4;10(9):2096. doi: 10.3390/foods10092096. PMID: 34574206; PMCID: PMC8472206.

4. G, Raghu. (2021), "Influence of Food Photography on Consumer Purchasing Behaviour", Available at SSRN: <https://ssrn.com/abstract=3903156>

5. Sherly Christivanny Lie. (2018), "An Investigation of Food Photography and Consumption Behaviour in 18-29-Year Olds", 7 September 2018 Dissertation submitted in part fulfilment of the degree of MSc in Global Marketing, published in The York Management School University of York

6. Li, X. & Wang, M. & Chen, Y.(2014), "The impact of product photo on online consumer purchase intention: An image-processing enabled empirical study." Proceedings - Pacific Asia Conference on Information Systems, PACIS 2014.

WEBSITES

1. <https://www.treeringdigital.com/importance-quality-product-photos-ecommerce/>

2. <https://www.ergonode.com/blog/the-importance-of-product-photos-in-ecommerce>

3. <https://www.ibef.org/industry/ecommerce>, IBEF (E-commerce Industry report-june, 2022)

4. <https://www.snappr.com/enterprise-blog/high-quality-food-photos-can-increase-orders-on-restaurant-delivery-apps-by->



A STUDY OF THE PERCEPTION OF THE EDUCATIONAL LEADERS ON CREATING OF GREEN COLLAR INDUSTRY THROUGH VOCATIONAL TEACHING IN SOUTHERN RAJASTHAN

DR. SHALENDRA SINGH RAO

ASSISTANT PROFESSOR, DEPARTMENT OF BANKING AND BUSINESS ECONOMICS, MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR,, RAJASTHAN, INDIA.

SAGAR SHARMA

RESEARCH SCHOLAR, DEPARTMENT OF BANKING AND BUSINESS ECONOMICS, MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR, RAJASTHAN, INDIA.

ABSTRACT:

Purpose: This study provides a broad summary of the respondents' opinions on the formation of a green collar sector by supporting renewable energy jobs through graduate and postgraduate university programmes, as well as vocational-technical high school programmes. The responders are the full-time faculty at the state-accredited universities in Southern Rajasthan. In order to establish a new social paradigm for sustainable development, it seeks to raise awareness of green collar labour among the general population.

Importance: While we fight significant issues like resource depletion, climate change, ozone layer loss, glacier melt, altered seasonal patterns, global warming, and other unfavourable conditions brought on by the growing human population, nature has been objectified and taken over by resource extraction. All living things in the natural world are threatened by these issues. To provide the energy needed to support modern lives, humanity must use its capacity to develop truly renewable energy sources rather than directly depleting the natural resources. Educating the workforce and the leadership to actively promote green economies and jobs in the renewable energy sector is one component of this effort. In Rajasthan, graduate unemployment rates are rising as a result of a significant disconnect between the educational system and the labour market. The state has a great opportunity to develop educational programmes that aim to educate green collar workers and prepare the next generation for opportunities in this area.

Proposed Research Methodology: The current study is descriptive in character. The research's study population consists of the regular teaching staff members who work for the state universities in Southern Rajasthan. The researcher advises employing a non-probability and deliberate sampling approach to obtain the sample. The sample size for the study would be 138 individuals. Using a self-made questionnaire, the researcher will conduct an opinion-based survey and gather data. The study will also make suggestions for bettering educational paradigms in light of its findings.

Limitations of the study: The sample region (permanent teaching staff of state universities) and sample size are the study's main limitations (138). Rajasthan's southern region. If both of these had been improved, the results would have been more accurate and precise.

KEYWORDS:

GREEN COLLAR INDUSTRY, SUSTAINABLE DEVELOPMENT, RENEWABLE ENERGY JOBS THROUGH VOCATIONAL-TECHNICAL EDUCATION.

INTRODUCTION:

An employee who works in an environmentally friendly industry is known as a "green collar worker." The desire for environmentally friendly development is met by environmental green-collar workers (or green occupations). In order to increase conservation and sustainability, they typically implement environmentally conscious design, legislation, and technology. To prepare blue-collar employees for green-collar occupations, the state must make investments. These jobs achieve this through a variety of initiatives, such as lowering energy or material consumption, decreasing waste or pollution, decarbonizing industries, and safeguarding ecosystems.

Green-collar employment has become the hottest new industry due to the rise in environmental concerns.

Because they might range from physical to management work, these jobs are more difficult to categorise than white- or blue-collar ones, but they all aim to improve the quality of our environment by lowering waste and pollution. Some examples of green-collar sectors are recycling, public transportation, alternative fuels, and energy efficiency. Large corporations, small businesses, and non-profit groups can all have green-collar positions. Because they pay more and enable greater career mobility, supporters claim that these roles offer better chances than those in the conventional industrial sector. It wouldn't be incorrect to say that green collar industry and sustainable development are two sides of the same coin because their essences are so closely related.

Renewable energy jobs through vocational-technical education

As the markets for renewable energy grow and mature, the associated employment likewise becomes increasingly specialised and highly skilled, ideally under recognised certification or qualification programmes. In addition to assisting in the shift to a low-carbon economy, renewable energy addresses broader sustainability issues like reducing pollution, improving energy security, and enabling access to energy for those who do not currently have access to energy infrastructure. The primary sources of renewable energy are wind, solar, geothermal, hydropower, and biofuels. Although more renewable capacity is being rapidly deployed, just 12.9% of the world's energy is currently provided by renewable resources, mostly through the conventional combustion of biomass and the relatively established contemporary biomass industry. Around half of the new electricity-generating capacity that was deployed globally in 2008 and 2009 was based on renewable energy technology. The utilisation of all the key technologies is increasing. The linked job also gets increasingly specialised and highly trained as the markets for renewable energy develop and flourish, ideally under recognised certification or qualification programmes. Renewable energy tackles broader sustainability challenges like lowering pollution, enhancing energy security, and enabling access to energy for those who do not currently have access to energy infrastructure in addition to contributing in the transition to a low-carbon economy. Wind, solar, geothermal, hydropower, and biofuels are the main types of renewable energy.

REVIEW OF LITERATURE

Curtis & Marinescu, (2022) in their research work titled as **"Green Energy Jobs in the US: What Are They, and Where Are They?"** mentions that green jobs pay 21% more than average. Low-skilled jobs pay more. Green occupations tend to be in counties with strong fossil fuel extraction employment. Our results show that the rise of renewable energy creates relatively high-paying jobs, which are commonly located in locations that stand to lose fossil fuel extraction jobs..

Stanef-Puică et al., (2022) in their research work titled as **"Green Jobs—A Literature Review"** states that "Green jobs" have received a lot of attention in the previous two decades, leading to several articles. Variability of these investigations may need documenting substantial contributions.

Stilwell, (2021) in their research work titled as **"From green jobs to Green New Deal: What are the questions?"** states that environmentalists, labour groups, and political economists proposed 'green jobs' to combat climate change. Current Green New Deal proposals emphasise fiscal stimulus, 'fair transition,' addressing socioeconomic inequities, and political empowerment. This article examines the creation of a comprehensive policy approach, its logic, and its prospects in Australia.

Knuth, (2020) in their research work titled as **"Whatever happened to green collar jobs? Populism and clean energy transition"** states that responses to climate change are no longer "postpolitical" in today's populist environment. There are continuous political conflicts today as a result of the attempt to decarbonize energy sources, including conflicts between competing types of capitalism. Rising renewable energy sectors in the US face off against regional fossil fuel bases and fossil fuel blocs in states like California. The researcher examined a wave of coalition-building that has developed in the United States since the start of the New Economy, uniting activists for racial and social justice, organised labour, and the environment. The national "green collar" job development calls that were made during the late 2000s financial crisis and the 2008 presidential campaign helped this movement become more well known.

Motoi, (2020) in their research work titled as **"The Challenges And Opportunities Of Green Economy And Green Jobs. From A Global To A European Approach"** The examination of the green economy and green jobs in this article is theoretical in nature. There is a causal connection between the two ideas: the rise of green jobs is a result of the development of the green economy, a concept that has been around since the turn of the 20th century and opens up chances for the global labour markets. We have used a systematic approach to demonstrate how the green economy is seen and how societies have formed initiatives to create and develop green jobs. The article's main argument is that the expansion of the green economy and, implicitly, of green jobs, must be viewed as both typical social realities specific to the XXI century, a society built on the pillars of development, inclusion, and environmental protection, as well as a means of addressing the global society's crises.

Econie & Dougherty, (2019) in their research work titled as **"Contingent work in the US recycling industry: Permatemps and precarious green jobs"** states that that there is a managerial conflict at play in recycling companies where employees must be both highly disciplined and highly flexible—choreographed yet unstructured. To ease this tension, recyclers turn to temporary staffing companies. Temp companies offer a flexible yet susceptible workforce and help recyclers in other ways to control labour and create vulnerability, turning workers into fungible bodies locked in a cycle of low-paying work. The idea of high-quality, career-oriented green collar jobs is called into question by the essentially dangerous and precarious nature of recycling work. Instead, temporary employment in the recycling sector is a prime example of precarity.

RESEARCH METHODOLOGY

TYPE OF SAMPLING: Deliberate Sampling is the method of sampling adopted for the study as the choice of samples has been done intentionally.

SAMPLE AND ITS AREA: The respondents are the permanent teaching staff in the recognised state

Universities of Southern Rajasthan.

SAMPLE SIZE: The nature of the current study is descriptive. The researcher suggests gathering the sample using a non-probability and purposeful sampling strategy. 138 people would make up the study's sample size.

STATISTICAL TOOLS: The researcher will conduct an opinion-based survey and collect data using a self-prepared questionnaire. Based on the findings, the study will also offer recommendations for improving educational paradigms.

OBJECTIVES:

The key objective of the paper is

1. To identify the respondents' views on the creation of a green collar industry by facilitating renewable energy jobs through vocational-technical high schools, graduate, and postgraduate university programmes.
2. It aims to increase public awareness of green collar work in order to create a new social paradigm for sustainable development.

Likert statements to understand the perception of the educational leaders on creating of green collar industry through vocational teaching

- S_1. There is an urgent need to implement vocational courses in the field of environment protection.
- S_2. We have taken enough steps to encourage such vocational courses in our university.
- S_3. Renewable energy value chain will never achieve the standards unless the issue is included in the education sector.
- S_4. Including such vocational courses will certainly raise the level of awareness among the students.
- S_5. Government should increase the number of job opportunities in this area.
- S_6. The candidates must also be given perks to get enrolled in such courses and for building careers in this segment.
- S_7. Awareness campaigns must be started to popularize the theme.
- S_8. The state Government must aid the state universities for developing the courses in this stream.

**DATA ANALYSIS AND INTERPRETATION
RELIABILITY STATISTICS**

TABLE 1.1

Cronbach's Alpha	N of Items
0.782	08

The reliability statistics for the questionnaire that was used to collect data are shown in Table 1. The value of Cronbach alpha was found to be 0.782, indicating that the dependability coefficient is more than just good. As a result, we conclude that our questionnaire was sufficient in eliciting the heart of the thesis, data analysis.

HYPOTHESIS TESTING

H01: The perception of sample respondents is indifferent regarding creating of green collar industry through vocational teaching.

i.e. Sample mean (\bar{x}) = 3 Hypothesized Population mean (μ)

H01a: The perception of sample respondents is different regarding creating of green collar industry through vocational teaching.

i.e. Sample mean (\bar{x}) \neq 3 Hypothesized Population mean (μ)

To test the above-mentioned null hypothesis, a one-sample t-test was applied

TABLE 1.2 OPINIONS OF THE RESPONDENTS

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Agreed	Total Disagreed	Mean	t-test
									St. Dev	Sign.
S_1	n	14	24	18	47	35	82	38	3.47	4.212
	%	10.14%	17.39%	13.04%	34.06%	25.36%	59.42%	27.54%	1.314	.000
S_2	n	12	13	28	29	56	85	25	3.75	6.751
	%	8.70%	9.42%	20.29%	21.01%	40.58%	61.59%	18.12%	1.311	.000
S_3	N	17	16	12	58	35	93	33	3.57	5.039
	%	12.32%	11.59%	8.70%	42.03%	25.36%	67.39%	23.91%	1.318	.000
S_4	N	20	20	16	37	45	82	40	3.49	3.958
	%	14.49%	14.49%	11.59%	26.81%	32.61%	59.42%	28.99%	1.441	.000

S_5	n	17	21	7	37	56	93	38	3.68	5.538
	%	12.32%	15.22%	5.07%	26.81%	40.58%	67.39%	27.54%	1.445	.000
S_6	n	20	20	10	48	40	88	40	3.49	4.089
	%	14.49%	14.49%	7.25%	34.78%	28.99%	63.77%	28.99%	1.415	.000
S_7	n	40	55	10	19	14	33	95	3.02	5.733
	%	28.99%	39.86%	7.25%	13.77%	10.14%	23.91%	68.84%	1.307	.000
S_8	n	14	19	12	53	40	93	33	3.62	5.597
	%	10.14%	13.77%	8.70%	38.41%	28.99%	67.39%	23.91%	1.308	.000

The calculated value of the t-test was (test value 3, df. 137), which was found to be positive in all statements; the significance value was less than 0.05, which confirms that the mean value of responses is **more** than 3. The researcher rejects that null hypothesis and concludes the perception of sample respondents is different regarding creating of green collar industry through vocational teaching. i.e. Sample mean (\bar{x}) \neq 3 Hypothesized Population mean (μ).

FINDINGS AND SUGGESTIONS

FINDINGS:

The research witnessed a unanimous conclusion from the side of respondents, all the them were in favour of green collar industry creation through voactional training, all the stated eight statements were favoured by the respondents, since our respondents were decorated teaching staff of the state universities of Rajasthan, they could very easily comprehend the importance of green collar education and their responsibility to initiate the concept through vocational degrees from their colleges.

SUGGESTIONS:

1. To help people realize that renewable energy sources are a major force in today's world, local governments must launch awareness campaigns. The world's entire electrical output by 2030 may be 65 percent inexpensive electricity produced from renewable sources. 90 percent of the electrical industry could be decarbonized by 2050, dramatically lowering carbon emissions and advancing the fight against global warming.
2. Also, the state Government must make it mandatory to frame new courses pertaining to this field.
3. Utilizing renewable energy sources is a brand-new strategy for increasing employment opportunities in the state. A recent study found that investing in renewable energy creates three times as many jobs as investing in the production of fossil fuels. The issue needs to be hammered home as strongly as possible to obtain popular acceptance.
4. Utilizing renewable resources is a pretty sure-fire approach to inject health into this ill world, which is a collection of diseases and deformities. Health

is richness. The general populace should be inspired to support the cause by pursuing vocations in this area.

5. To bring about a revolutionary shift in the students' mental processes, the state institutions must make it a priority to integrate technical and vocational courses pertinent to green collar occupations, sustainable development, and renewable resources.

REFERENCES

1. Curtis, E. M., & Marinescu, I. (2022). Green Energy Jobs in the US: What Are They, and Where Are They? : National Bureau of Economic Research.
2. Kozar, Ł. J., et al. (2022). Green Jobs in the EU Renewable Energy Sector: Quantile Regression Approach. *Energies*, 15(18), 6578.
3. Stanef-Puică, M.-R., et al. (2022). Green Jobs—A Literature Review. *International Journal of Environmental Research and Public Health*, 19(13), 7998.
4. Sulich, A., & Sołoducho-Pelc, L. (2022). The circular economy and the Green Jobs creation. *Environmental Science and Pollution Research*, 29(10), 14231-14247.
5. Stilwell, F. (2021). From green jobs to Green New Deal: What are the questions? *The Economic and Labour Relations Review*, 32(2), 155-169.
6. Knuth, S. (2020). Whatever happened to green collar jobs? Populism and clean energy transition *Environmental Governance in a Populist/Authoritarian Era* (pp. 334-343): Routledge.

7. Motoi, G. (2020). The Challenges And Opportunities Of Green Economy And Green Jobs. From A Global To A European Approach. *Social Sciences and Education Research Review*, 7(2), 195-205.

8. Rutkowska, M., & Sulich, A. (2020). Green Jobs on the background of Industry 4.0. *Procedia Computer Science*, 176, 1231-1240.

9. White, D. (2020). Just transitions/design for transitions: preliminary notes on a design politics for a green new deal. *Capitalism nature socialism*, 31(2), 20-39.

10. Cardoso, L., et al. (2019). Benefits and risks of green jobs in the construction industry.

11. Econie, A., & Dougherty, M. L. (2019). Contingent work in the US recycling industry: Permatemps and precarious green jobs. *Geoforum*, 99, 132-141.



THE IMPACT OF THE AGRICULTURAL SECTOR ON THE LIVES OF RAJASTHAN'S INDIGENOUS WOMEN (A CASE STUDY OF GHOOMER MAHILA SAMITI)

DR. NAMRATA KHEMRAJ YADAV

ASSISTANT PROFESSOR, MG COLLEGE, UDAIPUR

SHIVANGI MALI

UNIVERSITY COLLEGE OF COMMERCE, MOHAN LAL SUKHADIA UNIVERSITY
UDAIPUR, RAJASTHAN

ABSTRACT:

Indigenous Women are pioneering the development of creative agricultural solutions. In India, agriculture accounted for the majority of the GDP. Agriculture accounted for 18–20% of India's GDP. Women are pioneering the development of innovative agricultural solutions in rural Rajasthan.

Many other states have created agricultural businesses using various technologies like droning technology, smart farming processes, deep irrigation, greenhouse farming, etc, but we have not kept up with them since our independence due to illiteracy, technical advancement, and so on. There is a need to encourage women-only FPOs in order to increase female involvement, improve access to resources and services, and sustain higher income.

Many women form groups and engage in agricultural and humanitarian activities, but due to cultural constraints and distance from government assistance groups, they face challenges. That's the reason or real fact; we may also look at the downfall of the instabilities today, especially among indigenous or tribal women in Rajasthan, from the perspective of women's empowerment theories of the 21st century in India. Consider the following federation as an example.

A federation with the goal of promoting the social and economic welfare of underprivileged tribal families, Ghoomar Mahila Samiti was registered under the Societies Act of 1958. A group of 4,360 tribal women from Bali Block in Pali District make up Ghoomar Mahila Samiti. Samiti's long-term goal is to provide the final mile of tribal people with improved access to healthcare and educational opportunities. They are engaged in agricultural activities using natural resources, such as producing thalis from tendu leaves and Gulal's from leftover flowers from temples. The federation coordinates funds and provides training to work on issues relating to agriculture, horticulture, natural resource management, among other things, through collaborations with other governmental and non-governmental organizations.

KEYWORDS:

AGRICULTURAL BUSINESS, INDIGENOUS WOMEN IN AGRICULTURE SECTOR, TECHNICAL ADVANCEMENT, TSP AREA, SOCIAL AND CULTURAL BARRIERS, INNOVATION IN AGRICULTURAL INDUSTRIES.

INTRODUCTION:

Indigenous Women are pioneering the development of creative agricultural solutions. In India, agriculture accounted for the majority of the GDP. Agriculture accounted for 18–20% of India's GDP. About 65% of the population in the village relies on agriculture for their livelihood. According to an annual survey conducted in 2020–21, 48% of farmers were self-employed women, whereas 33% of women worked in agriculture. Indigenous women are members of specific communities, most of which are located in a particular portion of the region where they share ancestral lands and natural resources while remaining apart from other social and cultural groups. The rural and tribal area of Rajasthan is well-suited for the growth of a wide variety of crops and also has a robust animal husbandry industry due to its diversified agro-climatic conditions. Many other states of India have developed their agricultural industries employing various technologies.



Source: - <https://www.dailypioneer.com>

But since our independence, we have not kept up with them due to ignorance, lack of agricultural awareness of technological advancements, etc. Any nation needs to be empowered, especially women, to make better GDP growth. However, we are far from having that because of our Rajasthani tradition, with their regional cultural perspective still alive within the nature of indigenous

women, which is why she's not actively participating in income generation in their local area and also because they are facing many hurdles in their personal lives. Also, the market broker is getting more and more advantages from the agriculture business. That's the reason or real fact; we may also look at the downfall of the instabilities today, especially among indigenous or tribal women in Rajasthan, from the perspective of women's empowerment theories of the 21st century in India.

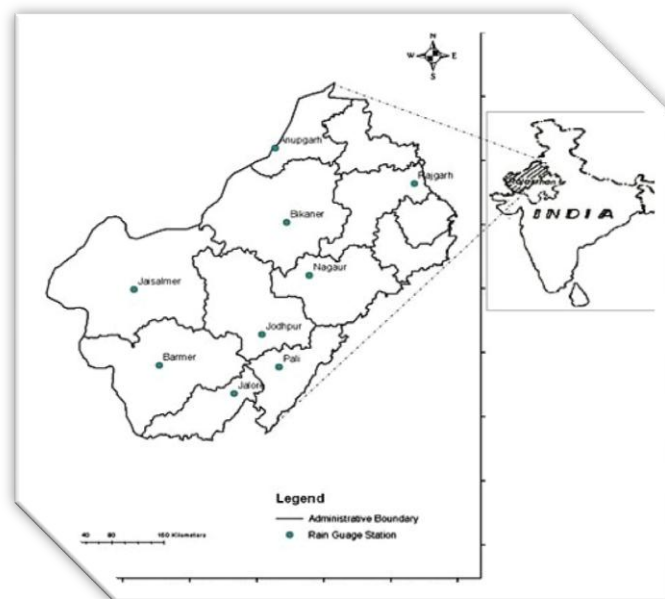
REVIEW OF LITERATURE: -

Devyani Rathore: -Tribal women's empowerment may be seen as the development of a setting in which one can make choices and decisions for social transformation. Feminist ideas will also greatly enhance the lives of tribal women, who are frequently excluded from mainstream society. Consideration must be given to problems including poverty, illiteracy, lack of knowledge about nutrition and health, and devastation of the environment, with particular attention to southern Rajasthan (India). Moving from a vulnerable position to using power is empowerment. In our research, we discovered a connection between tribal women's empowerment, education, and standing in society. According to their view, they always belong to the forest, and the forest believes the same about them. They continue to do a fantastic and outstanding job of conserving the forest. Conditions for these women are precarious.

Dr. Basavaraj Patil and Dr. V Suresh Babus (2018): - The agricultural research agenda has to be refocused in order to close current gaps and address new issues relating to the sustainable growth of smallholders with limited resources, particularly women farmers. We are well aware of the issues that women encounter at home and on the farm. But for now, we need a thorough examination of the issues, followed by the right steps to address them. Through their participation in natural resource management, animal husbandry, fisheries, horticulture, and crop production, women have made significant contributions to the growth and development of the agricultural sector. Despite the fact that the number of women working in agriculture has decreased, they still make up a sizable share of the industry.

STUDY AREA: - The Rajasthan region of northern India was the main focus of the study. Following November 1, 2000, Rajasthan was India's largest state by population area. The Land of Maharajas is another name for Rajasthan.

Rajasthan had a varied social and geographic environment. The agricultural business has a ton of possibilities due to the geographic diversity. The "Marwar" region of Rajasthan, which includes the cities of Jaisalmer, Barmer, Jalore, Jodhpur, Nagaur, Pali, Bikaner, Sikar, Churu, and Jhunjhunu, is our primary concern. The circumstances of indigenous women there, the influence of agriculture on their lives, and the area's abundant natural resources and agricultural economic opportunities were the key drivers for taking this land.



Source:

-Location-map-of-study-region-western-Rajasthan-in-India

OBJECTIVES: -

- ✚ To find out the reasons for indigenous women's success and failure in the agricultural sector.
- ✚ To find out the challenges and the social barriers faced by indigenous women in are of the agriculture sector.
- ✚ To find out the benefit of the newest technology in the agricultural sector.

RESEARCH METHODOLOGY (BASED ON SECONDARY DATA): -

As part of our research approach, we use a variety of methods, tools, and data sources to carry out the study and achieve the study's goals. To achieve the objectives of this study, we shall employ a descriptive research methodology.

In India, 74.60 percent of the population, or 54.60%, depending on agriculture or agriculturally related occupations to subsist. According to an annual study conducted in 2020–21, around 33% of women participate in agricultural work. In Rajasthan, 75% of the population lives in villages, where the bulk of people depend on agriculture.

The case study was developed using secondary data from the internet, newspapers, books, and a wide range of other sources, including the official website of the Indian government, the Ghoomer Mahila Samiti, reports from NGOs and FPOs, the annual report for the fiscal year (2020–21), and various papers, magazines (like Kurukshatra.), the Ministry of Tribal Affairs of Rajasthan, the Agriculture Sectoral Portal of Rajasthan, and research that has previously been published in a number of journals.

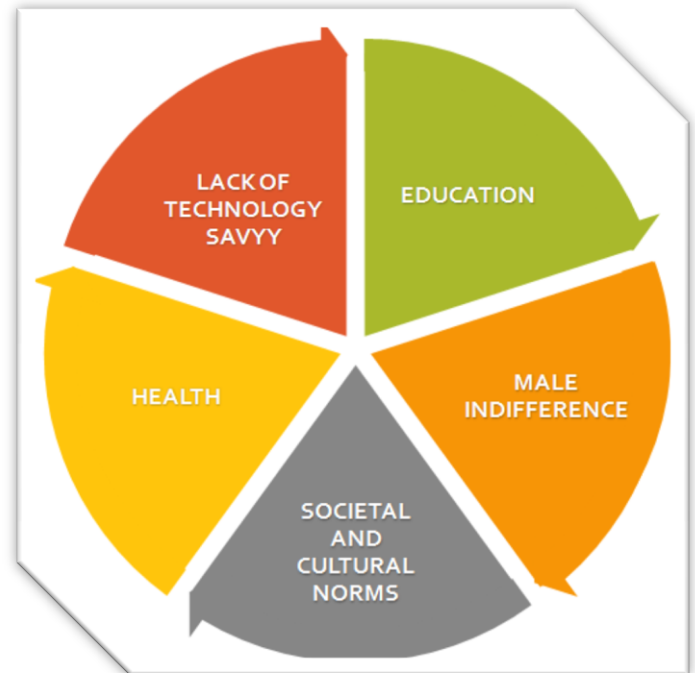
Rajasthan's economy greatly benefits from the contribution of women. They have too much potential to

work in the industry and are generally employed in agriculture. Women have a number of challenges and limitations as a result of social and cultural norms. Finding work in any field continues to be extremely tough for Rajasthani women.

Even if they have the required land and resources to do so, certain areas of Rajasthan maintain rigid cultural norms that forbid women from leaving the house and engaging in any kind of business activity. However, they are unable to use these resources efficiently due to their misunderstanding of the many agricultural economic operations and their lack of technological skills. However, with the aid of this case study, we are hopeful that women are capable of anything provided they have access to correct guidance and support. The federation is aiming to address a number of social concerns, including the prohibition on liquor stores, early girl marriage, school education specifically for girls, providing medical facilities, and more.

- As a consequence of their grasp of agricultural commercial activity and independent labor, the tribeswomen had less educational knowledge than other groups, which prevents them from being aware of and actively pursuing their rights.
- Due to their lack of collaboration with other groups, such as AFARI, CAZRI, and certain government organizations, they may not have access to new opportunities. Additionally, because of societal issues and a lack of knowledge, they are unable to confront these issues in order to find solutions.
- Thalies are being made from Palash leaves. Additionally, they create gulal utilizing the dried Palash flower. However, they have too many natural resources to engage in other agribusinesses owing to a lack of expertise, adequate money, and knowledge of the most recent technological advancements.
- The region of Rajasthan is characterized by extreme geographic circumstances and an abundance of natural resources for the agricultural sector, but owing to a lack of understanding of asset management activities, they are unable to sustainably restore these sources of income.
- As the Indian government works to promote domestic producers through initiatives like the Make in India Project and others to boost commercial activity, rural areas are unable to take advantage of this chance owing to a lack of information. Government and this organization should work together to support this effort and effectively employ women in the agricultural sector.

There are numerous factors that may influence the agricultural industry or its related activities, but with the right guidance, opportunities for women, policy-making, imparting technological knowledge, facilitating loans and subsidies for women entrepreneurs, proper education, etc., they can become independent. They are able to grow their company effectively and profitably.



The challenges and the social barriers faced by indigenous women

- » **Education:** - Any developing nation's most important component is education. However, despite the government's efforts to provide equitable access to education for all students and the organization of several campaigns in that direction, suitable educational facilities are still lacking in rural Rajasthan. They attend a school up until the eighth grade but are unable to continue their education after that because of the distance from their homes.
- » **Male Indifference:** - Women are performing equal or more work than men. However, due to the unrecognition of their work, they are still in a pitiful condition. Women conduct the majority of harvesting work in the hamlet, yet they are still not recognized for their efforts.
- » **Societal And Cultural Norms:** - Despite the fact that women are doing all of the labor that men can do in the twenty-first century, there are numerous social conventions that are solely for women. In Rajasthan, especially in parts of Marwar, women are not permitted to work outside, and the Ghughat system still exists. Many other regulations are major impediments to carrying out

any agricultural business.

» **Health:** - The most serious concern in Rajasthan is early girl-child marriage. Despite the fact that the government has prohibited it, child marriages are still performed in tribal areas. Many mental and physical health difficulties occur as a result of early marriages. They are unable to undertake any strenuous activity in the agricultural field due to their poor health.

» **Lack of technological savvy:** - Due to illiteracy, these women are unable to adopt agricultural technologies. The main cause of inadaptability in modern techniques is a lack of internet connectivity and inadequate infrastructure.

Despite these reasons, there are still plenty more. It is crucial to get through this obstacle to the development of tribal women. There are many natural resources accessible for business in Rajasthan that tribal women may exploit for their economic operations. But because of these important factors, women continue to live in deplorable circumstances and lack financial independence. The government should also take steps to support tribal women's agricultural businesses.

Many contemporary approaches are applied in the agriculture industry nowadays thanks to the internet. The government works with several research organizations, such as the Department of Agriculture, CAZRI, AFARI, etc., to introduce contemporary agricultural technology. Many government organizations, NGO's, and FPO's are striving to improve the lives of tribal women in Rajasthan. Rajasthan has a variety of geographical features, including the arid and water-scarce Marwar region. But different crops are gathered as a result of current technologies. With the aid of contemporary technology, several organizations in this region engage in the agriculture sector. Women from many tribes have achieved great success in agriculture and jobs associated with agriculture with the help of modern techniques. Autopilot tractors, biotechnology, drone technology, crop sensors, VRT and swath control technology, GPS field mapping, mobile technology use, and cameras are the main contemporary technologies employed in the agricultural sector. Many women can participate in agricultural operations with the aid of these new technologies. As we examine Ghoomer Mahila Samiti as a case study, the federation is doing amazing work with the aid of the environment. They use tendu leaves to produce thalis and equipment to pack them for delivery.



source: - <https://www.indianretailer.com> (Official Souce)

THE BENEFIT OF THE NEWEST TECHNOLOGY IN THE AGRICULTURAL SECTOR:-

The rapid increase in smartphone usage in rural areas has aided the farming industry in making its initial strides toward adopting technology. Drones are the agricultural industry's future. Drones equipped with technology-based sensors can be utilized in precision agriculture, such as crop health monitoring, and weed and insect identification. The majority of farmers are looking for modern agricultural crop and livestock breeding techniques. It's important to use fertilizers to improve the fertility of the soil that one intends to cultivate. Crop productivity frequently suffers from a lack of rainfall.

Therefore, cutting-edge methods are being used locally to deal with this issue. Pesticides provide results when utilized appropriately. Because of this, pests are less likely to invade vegetation with the goal of growing strong, fruitful plants.

- Increased agricultural output.
- Using less water, fertilizer, and pesticides results in lower food costs.
- Lessening of the impact on natural ecosystems
- Less chemical discharge into groundwater and waterways.
- Improved workplace security.
- Increasing the status of women.
- Development of incredible self-reliance toward affordable financing in the agricultural sector.

CONCLUSION:-

In India, agriculture or agriculturally related jobs provide a living for 74.60 percent of the population, or 54.60%. According to 2020-21 yearly research, around 33% of women work in agriculture. In Rajasthan, 75% of the population lives in villages, where agriculture is the main source of income. Yatra Nariastu Pujyante, Tatra Devta Ramante, which translates to "wherever women are honoured, god lives there," is a line from the Vedas. Every community should value women equally and treat them with respect in all areas. The most effective tool for empowering women is education. According to the data above, modern amenities and education have had a

significant impact on the empowerment of women.

- ✓ Various women in the tribal area engage in some economic enterprises with the help of the region's natural resources, but their capacity to extend their companies is limited owing to a lack of money, poor educational preparation, and ignorance of governmental rules. Numerous SHGs, FPOs, NGOs, and other governmental agencies begin to collaborate with them in order to improve their economic operations and the lives of other women who are affiliated with them.
- ✓ Women have several opportunities to work in the agricultural industry, but owing to societal constraints, they are not taking use of these opportunities.
- ✓ Women in the Rajasthan tribal region know all about agricultural land and associated activities, but owing to unrecognized opportunities, they are distant from progress.
- ✓ Rajasthan has vast natural resources and abundant agricultural opportunities, but owing to ineffective policymaking for women, a lack of support for women entrepreneurs, uneven distribution of finances, and other factors, this sector remains an underdeveloped.
- ✓ The agricultural industry has expanded quickly as a result of contemporary technology, but in the tribal areas women are still illiterate, and their lack of technological literacy and inadequate internet connectivity may contribute to the agricultural industry's slow growth.
- ✓ The majority of Indian women work in agriculture, but they also have many opportunities in related fields as gardening, animal husbandry, livestock fishing, etc.

SUGGESTIONS:-

Rajasthan's diverse demographics offer tremendous potential for commercial expansion while preserving the environment. The government should take steps to encourage tribal women to use these resources in handicrafts, horticultural, and other endeavors in addition to the agricultural sector.

- ✚ All tribal women should receive regular instruction in contemporary techniques as well as practical information to make their labor simpler and boost crop yields.
- ✚ Invest in research and development to enhance present procedures, boost productivity and revenue, and minimize harmful ecological consequences.
- ✚ The tribal areas of Rajasthan, in particular, offer an abundance of resources for doing commerce, but due to rigid cultural standards, women are not permitted to venture outside and conduct such business. The government took the initiative to

recognize this possibility and to get the local women to start using these resources for income-generating activities.

- ✚ In the Tibetan region, some women engage in some economic endeavours with the aid of the region's natural resources, but they are constrained in their ability to expand their businesses due to a lack of funding, inadequate educational preparation, and ignorance of governmental regulations. Numerous SHGs, FPOs, NGOs, and other governmental entities start working with them so they may enhance their business operations and the lives of other women who are linked to them.

REFERENCES

1. agriculture.rajasthan.gov.in
2. Das, Abhiman. (2004). Socio-economic Development in India: A Regional Analysis.
3. https://a-a-r-s.org/proceeding/ACRS2014/Full%20apers/Session%20D/Session%20D5/OS-184%20Devyani%20Rathore%20Full%20Paper%2035th%20ACRS.pdf
4. jsser.org/2018files/ijsser_03_207.pdf
5. Patil, Basavaraj & Suresh Babu, Venkatachalapathi. (2018). Role of Women in Agriculture. 4. 109-114.
6. Meena, Phool & Meena, Prem. (2017). Role of women in agriculture as farmer and labour: An empirical evidences of farm women involvement in agriculture operations in Jaipur district of Rajasthan state. AGRICULTURE UPDATE. 12. 409-414. 10.15740/HAS/AU/12.3/409-414.
7. NABARAD
8. Nagar, Avnish.(2018). Impact of self help groups on the lives of tribal women of southern rajasthan: a sociological study. International Journal of Social Science and Economic Research.03.07

9. Rehman, Abdul & Jingdong, Luan & Khatoon, Rafia & Hussain, Imran. (2016). Modern Agricultural Technology Adoption its Importance, Role and Usage for the Improvement of Agriculture. American-Eurasian Journal of Agricultural & Environmental Sciences. 16. 284-288. 10.5829/idosi.aejaes.2016.16.2.12840.

10. Small Farmers' Agri-Business Consortium "Society promoted by Department of Agriculture and Farmers Welfare, Ministry of Agriculture and Farmers Welfare, Govt. of India"

11. www.ghoomarmahilasamiti.org

12. niti.gov.in/Rajasthan-reports.pdf



STUDYING THE SOCIO-DEMOGRAPHIC CHARACTERISTICS OF MINE WORKERS OF JODHPUR DIVISION IN RAJASTHAN IN THE POST-PANDEMIC SCENARIO

INDU DEVAL

ASSISTANT PROFESSOR, DEPARTMENT OF GEOGRAPHY, GOV. GIRLS COLLEGE TIVRI MATHANIA JODHPUR (RAJ.)

ABSTRACT:

The COVID-19 pandemic has triggered multiple economic shocks impacting every sector and mining sector cannot be an exception. Mining is one of the major occupations in Rajasthan, which contributes significantly to the state economy, despite being regarded as a dangerous occupation considering its health effects. While the majority of the past research studies have focused on the diseases occurring due to mining activities, the present research highlights the socio-demographic characteristics of workers in the mining sector of Jodhpur division, along with identifying the major social problems of the mine workers. Analysing and discussing the major characteristics of socio-demographic profile of mine workers in the post-pandemic period, the research identified three major social problems – illiteracy, marriages before the legal age, and elderly workers, significantly present among the mine workers that needs to be resolved.

KEYWORDS:

SOCIO-DEMOGRAPHIC PROFILE, MINING SECTOR, POST-COVID PERIOD, JODHPUR.

INTRODUCTION:

COVID-19, possibly the most devastating health epidemic, developed into an unprecedented social and economic global crisis shortly after its origin in Wuhan, China. The global pandemic has triggered multiple economic shocks. Considering the supply aspect, lockdowns have disrupted global supply chains due to factors such as sudden factory closures and transport suspensions. Considering the demand aspect, closure of non-essential economic activities and restrictions on the movement of people has reduced consumption significantly. All of these aspects have led to massive capital outflows from emerging markets, falling exports and incomes, plummeting investor confidence, and plunging commodity prices, creating the perfect storm for a looming deflationary economic crisis. Every sector has been affected by the adverse consequences of the COVID-19 pandemic, and the mining sector is no exception.

The significance of mining activities has significantly enhanced in order to meet emerging infrastructure demands for metals and minerals (NIMH Report, 2011). Even though mining is a hazardous occupation, it has been considered as one of the major occupations in Rajasthan and involves a large workforce, and is expected to grow in the near future (Cho & Lee, 1978). Even, the mining sector is a major economic activity which contributes significantly to the economy of Rajasthan, providing job opportunities to around 2.5 million people and contributing 9.5% to the state GDP.

Although a lot of research has been done in Jodhpur division (covering six districts: Jaisalmer, Barmer, Jodhpur, Jalore, Sirohi, and Pali) to bring mine workers into focus, the majority of the research has focused on the diseases occurring due to mining activities (Singh et al., 2006).

Further, past research has shown that workers involved in various mining activities, especially men, are exposed to high levels of silica dust over a long period of time, and they die very early from silicosis (Murlidhar, 2015; NIMH Report, 2011). There is a lack of research highlighting the socio-demographic characteristics of workers involved in mining activities in the Jodhpur division. Therefore, the current study attempts to analyse the socio-demographic characteristics of workers in the mines of the Jodhpur division and identify their social problems.

METHODOLOGY:

A cross-sectional descriptive study was conducted in the Jodhpur division of Rajasthan between January 2022 and June 2022. The study was conducted in the residential areas of the mine workers. The purpose of the study was informed and explained to all identified mine owners. All mine workers present during the investigation were included and their informed consent was also obtained. Data on selected socio-demographic variables (gender, age, educational status, marital status, marital age, occupational age, work experience, etc.) of workers were collected using a semi-structured questionnaire. The necessary approvals for this study were obtained from the ethical committee. Collected data were analysed using the software program - IBM SPSS (v. 23.0). Inferences were drawn using appropriate descriptive and inferential statistical tools. A p -value < 0.05 was considered statistically significant.

FINDINGS AND DISCUSSIONS:

The fundamental socio-demographic characteristics of the data were examined with the help of descriptive statistics, which provides a powerful summary to enable comparison

among the different groups.

TABLE 1 – CURRENT AGE OF MINE WORKERS

Current Age (in years)	Male Workers (n=844)		Female Workers (n=216)		Total Workers (N=1060)		p-value
	Count	%	Count	%	Count	%	
Below 30	109	12.9	14	6.5	123	11.6	.137
30-39	196	23.2	56	25.9	252	23.8	
40-49	246	29.1	69	31.9	315	29.7	
50 & above	293	34.7	77	35.6	370	34.9	
Mean & SD	43.78±10.99		44.97±9.88		44.03±10.78		.043
Age Range	46 (17-63)		38 (20-58)		46 (17-63)		

A total of 1060 workers engaged in the mining sector of Jodhpur division participated in the present study, of which the majority (79.6%) were male workers and balance 216 workers (20.4%) were female. Other research studies on mine workers conducted in Rajasthan also observed a majority of male workers. The study of Raghav et al. (2020) observed 78.7% male mine workers; the study of Mohamed et al. (2017) observed 92.5% male mine workers. A majority of 370 mine workers (34.9%) belonged to the age group 50 years and above, followed by

315 mine workers (29.7%) belonging to the age group 40-49, 252 (23.8%) belonging to the age group 30-39, and 123 (11.6%) belonging to the age group of below 30 years (Table-1). The average current age of female workers (44.97 years) was found to be significantly higher than the average current age of male workers (43.78 years old). The study by Raghav et al. (2020) also observed a significant higher average age of female workers (39.16 years) as compared to that of male workers (37.62 years).

TABLE 2 – EDUCATIONAL STATUS OF MINE WORKERS

Educational Status	Male Workers (n=844)		Female Workers (n=216)		Total Workers (N=1060)		p-value
	Count	%	Count	%	Count	%	
Uneducated	366	43.4	128	59.3	494	46.6	<.001
Up to Class VI	209	24.8	52	24.1	261	24.6	
Up to Class X	144	17.1	27	12.5	171	16.1	
Up to Class XII	88	10.4	9	4.2	97	9.2	
Graduate or above	37	4.4	--	---	37	3.5	

Out of the total of 1060 mine workers, 494 (46.6%) were uneducated, 261 (24.6%) had primary & middle school education, 171 (16.1%) had secondary education, 97 (9.2%) has higher secondary education, and 37 (3.5%) were graduated or post-graduated. Higher level of uneducated mine workers was also reported by the study of Yadav et al. (2011). The results summarized in Table-2

confirm that the illiteracy rate was found to be significantly higher among female workers (59.3%) as compared to that of male workers (43.4%). Raghav et al. (2020) observed similarly indicating a significantly higher proportion of uneducated female workers as compared to that of male workers.

TABLE 3 – AGE OF MINE WORKERS AT THE TIME OF THEIR MARRIAGE

Marital Age	Male Workers (n=844)		Female Workers (n=216)		Total Workers (N=1060)		p-value
	Count	%	Count	%	Count	%	
Before Legal Age	106	12.6	47	21.8	153	14.4	<.001
After Legal Age	738	87.4	169	78.2	907	85.6	

The results summarised in Table-3 highlights that 153 mine workers (14.4%) got married before attending their legal age (for female 18 years and for male 21 years). Though marriage before attending the legal age is against law in India since 1929, still such marriages are prevalent in some regions of the country. Further, marriage before the legal age was found to be significantly high among

female mine workers (47, 21.8%) as compared to male mine workers (106, 12.6%). Raghav et al. (2020) also observed similarly in their study indicating that 13.22% of the workers got married before attending their legal age, which was found to be significantly higher among female mine workers.

TABLE 4 – MARITAL STATUS OF MINE WORKERS

Marital Status	Male Workers (n=844)		Female Workers (n=216)		Total Workers (N=1060)		p-value
	Count	%	Count	%	Count	%	
Unmarried	53	6.3	2	0.9	55	5.2	<.001
Married	738	87.4	193	89.4	931	87.8	
Divorced	12	1.4	4	1.8	16	1.5	
Widowed	41	4.9	17	7.9	58	5.5	

The Table-4 depicts the marital status of mine workers. Out of the total 1060 mine workers who participated in the study, 931 workers (87.8%) were married, rest 58 (5.5%) were widowed, 55 (5.2%) were unmarried, and 16 (1.5%) were divorced. The majority of mine workers were married. This may be supported by the fact that workers started working in mines because of a lack of employment

opportunities in other sectors to meet their post-marriage financial needs, or because they had several children in their family to support. In addition, the proportion of unmarried male workers and the proportion of female widowed workers was found to be significantly higher. The study of Raghav et al. (2020) indicated similar findings.

TABLE 5 – AGE OF MINE WORKERS AT THE TIME OF JOINING THE MINE

Age at the time of joining the mining job	Male Workers (n=844)		Female Workers (n=216)		Total Workers (N=1060)		p-value
	Count	%	Count	%	Count	%	
Below 30	170	20.1	36	16.7	206	19.4	.114
30-39	331	39.2	85	39.4	416	39.3	
40-49	205	24.3	63	29.2	268	25.3	
50 & above	138	16.4	32	14.8	170	16.0	
Mean & SD	38.65±10.37		39.19±9.85		38.76±10.27		<.033
Age Range	39 (15-54)		36 (19-55)		40 (15-55)		

As shown in Table-5, out of 1060 mine workers participated in the study, 416 workers (39.3%) joined the mining job in the age group 30-39, while 268 workers (25.3%) joined mines in the age group 40-49, 206 workers (19.4%) joined at the age lower than 30 years, and 170 workers (16%) joined mines at the age of 50 years or

above. The average age of joining the mines for female workers (39.19 years) was found to be significantly higher than that of male workers (38.65 years). The study of Raghav et al. (2020) observed similarly indicating that the average age of joining the mines for female workers (24.59 years) was found to be significantly higher than that of

male workers (20.33 years). The workers joined the mines at the lowest age of 15 years and at the highest age of 55 years.

TABLE 6 – MINING WORK EXPERIENCE OF MINE WORKERS

Mine Working Experience	Male Workers (n=844)		Female Workers (n=216)		Total Workers (N=1060)		p-value
	Count	%	Count	%	Count	%	
0-5 years	93	11.0	68	31.5	161	15.2	.014
5-10 years	168	19.9	102	47.2	270	25.5	
10-15 years	324	38.4	31	14.4	355	33.5	
Above 15 years	259	30.7	15	6.9	274	25.8	
Mean & SD	12.40±5.38		7.44±4.54		11.39±5.59		<.001

As shown in Table-6, 161 workers (15.2%) had an experience of less than 5 years, 270 workers (25.5%) had 5-10 years of experience, 355 workers (33.5%) had 10-15 years of experience, and 274 workers (25.8%) had over 15 years of experience working in mines. The mean working experience of male mine workers (12.4 years) was found to be significantly higher than the mean working experience of female mine workers (7.44 years). The study of Raghav et al. (2020) observed similar finding indicating a significantly higher working experience of male mine workers (17.29 years) as compared to that of female mine workers (14.57 years).

CONCLUSION:

This study was conducted in the residential areas of the mine workers of the Jodhpur division of Rajasthan, covering six districts: Jaisalmer, Barmer, Jodhpur, Jalore, Sirohi, and Pali, with the aim of assessing the socio-demographic characteristics of workers engaged in the mining activities in Jodhpur division and identifying their social problems.

The study found that the majority of the workers in the mine were men. A significantly high mean age was observed among female mine workers as compared to that the mean age of male workers. The study observed a significantly higher proportion of uneducated female mine workers as compared to that of male mine workers. In addition, female mine workers were significantly more likely to be married before legal age than male mine workers. Most of the mine workers were married, the proportion of unmarried male mine workers was significantly higher than that of female mine workers, and the proportion of widowed female mine workers was significantly higher than that of male mine workers. Similarly, a significantly higher average age of joining the mines was observed among female mine workers as compared to that of male mine workers. A significantly higher average work experience was observed among male mine workers as compared to that of female mine workers.

The study identified three major social problems for workers working in mines. First, the illiteracy among the

mine workers was found to be significantly higher. Second, the research observed that marriages before the legal age among mine workers are prevalent in Jodhpur division. Third, more than one-third of the mine workers are found to be elderly. In fact, mining activities are not safe for elderly workers. Hence, the research draws attention of the policymakers towards resolving these social problems.

REFERENCES

1. Cho, K.S. and Lee, S.H. (1978). Occupational health hazards of mine workers. Bulletin of the World Health Organization, 56: 205-218.
2. Mohamed, N., Shamim, M., Waheeb, A., and Tariq, P. (2017). Silicosis, a monumental occupational health crisis in Rajasthan - An epidemiological survey. International Journal of Research - Granthaalayah, 5(7): 554-583.
3. Murlidhar, V. (2015). An 11-year-old boy with silico-tuberculosis attributable to secondary exposure to sandstone mining in central India. BMJ Case Reports. DOI: 101136/bcr-2015-209315.
4. NIMH Report (2011). Detection of Silicosis among Stone Mine Workers from Karauli district. National Institute of Miners Health, Nagpur. Available at: <<http://aravali.org.in/themes/upload/files/276725.pdf>>.

5. Raghav, P., Jaiswal, A., Gupta, M.K., Rajavel, S., and Dhupar, D. (2020). Sociodemographic Profile of Workers in the Mining Industry of Jodhpur District in Rajasthan, India. *Indian Journal of Occupational and Environmental Medicine*, DOI: 10.4103/ijoem.IJOEM_288_19.

6. Singh, S.K., Chowdhary, G.R., and Purohit, G. (2006). Assessment of the impact of high particulate concentration on peak expiratory flow rate of lungs of sandstone quarry workers. *International Journal of Environmental Research and Public Health*, 3: 355-359.

7. Yadav, S.P., Anand, P.K., and Singh, H. (2011). Awareness and practices about silicosis among the sandstone quarry workers in desert ecology of Jodhpur, Rajasthan, India. *Journal of Human Ecology*, 33: 191-206.



WOMEN EMPOWERMENT IN INDIA: A CRITICAL ANALYSIS

DR. SUKHPREET KAUR

PSYCHOLOGY DEPARTMENT, JAI NARAIN VYAS UNIVERSITY, JODHPUR (RAJ)

DR. MANISH JAIPAL

PSYCHOLOGY DEPARTMENT, JAI NARAIN VYAS UNIVERSITY, JODHPUR (RAJ)

ABSTRACT:

This research paper is an attempt to analyze the status of women in India. The entire paper is about the women empowerment in our country. Women all over the world have been suffering from unequal treatment in terms of education, freedom, and religion. Data found in the literacy rate of 2022 shows that education level of women in comparison to men in India is quite less in majority of the states. Hence, education is also considered the main reason behind the problems face by the Indian Women. Lack of education and awareness are accountable for the poor condition of Indian Women. Further, measures taken by the Indian government to up lift the economic and social equality and gender equality among women in India will also be discussed.

KEYWORDS:

WOMEN, EMPOWERMENT, EDUCATION AND INDIA.

INTRODUCTION:

Women are the most important and powerful organ of the entire mechanism of the system called Universe. They are simply an extra ordinary gift to the world, however sad, they are totally neglected or taken for granted by the school of old thoughts where superstitions and false beliefs prevail which treat women as mere source of bearing and rearing of kids. The society has become a tough male dominating one so women are always sealed in the four walls of the house. Especially in India where women are always treated secondary.

In every era, women faced issues. Although in the Vedic period women had access to education in India, they had gradually lost this right. However, in the British there was revival of interest in women's education in India. During this period, various socio religious movements led by eminent persons like Raja Ram Mohan Roy, Ishwar Chandra Vudhyasagar emphasized on women's education in India. Mahatma Gandhi, Jyotiba Phule, Periyar and Baba Saheb Ambedkar were leaders of the lower castes in India who took various initiatives to make education available to the women of India. However women's education got a fillip after the country got independence in 1947 and the government has taken various measures to provide education to all Indian women. As a result women's literacy rate has grown over the three decades and the growth of female literacy has in fact been higher than that of male literacy rate. While in 1971 only 22 per cent of Indian women were literate, by the end of 2001, 54.16 per cent female were literate. The growth of female literacy rate is 14.87 per cent as compared to 11.72 per cent of that of male literacy rate. As per the latest Census in the year 2011, the total female sex ratio in India is 940 per 1000 males. The census- 2011 also indicated a 2001-2011 decadal literacy growth of 9.2 per cent, which is slower

than the growth seen during the previous decade. There is a wide gender disparity in the literacy rate in India: effective literacy rates (age 7 and above) in 2011 were 82.14 per cent for men and 65.46 per cent for women. While in 2022, the literacy rate is 77.70 per cent, with males at 84.70 per cent and females at 70.30 per cent, according to the National Family Health Survey (NFHS-5) and National Statistical Offices: NSO (2022).

Women education in India plays a very important role in the overall development of the country. It not only helps in the development of half of the human resources, but in improving the quality of life at home and outside. Educated women not only tend to promote education of their girl children, but also can provide better guidance to all their children. Moreover educated women can also help in the reduction of infant mortality rate and growth of the population.

Women empowerment is also defined as a change in the context of a women's life, which enables her increased capacity for leading a fulfilling human life. It gets reflected both in external qualities (viz. health, mobility, education and awareness, status in the family, participation in decision making, and also at the level of material security) and internal qualities (viz. self-awareness and self-confidence) [Human Development in South Asia (2000) as quoted by Mathew (2003)].

WOMEN EMPOWERMENT AND EDUCATION:

Women empowerment is although global issue and discussion on women political rights are at the fore front of many formal and informal campaigns worldwide. The concept of women empowerment was introduced at the international women conference at NAROIBI in 1985. Education is milestone of women empowerment because

it enables them to respond to the challenges, to confront their traditional role and change their life. It was stated by PT.

Jawaharlal Nehru, "If you educate a man you educate an individual, however, if you educate a woman you educate a whole family. Women empowered means mother India empowered".

So that we can't neglect the importance of education in reference to women empowerment in India is poised to becoming a superpower, a developed country by 2020. The year 2020 is fast approaching; it is just 3 year away. This can become reality only when the women of this nation become empowered. India presently accounts for the largest number of illiterates in the world. Literacy rate in India have risen sharply from 18.3 per cent in 1951 to 64.8 per cent in 2001 in which enrolment of women in education have also risen sharply 7 per cent 54.16 per cent. Despite the importance of women education unfortunately only 39 per cent of women are literate among 64 per cent of the man. Within the framework of a democratic polity, our laws, development policies, plan and programmes have aimed at women's advancement in difference spheres. From the fifth five year plan (1974-78) onwards has been a marked shift in the approach to women's issues from welfare to development. In recent years, the empowerment of women has been recognized as the central issue in determining the status of women. The National Commission of Women was set up by an Act of Parliament in 1990 to safeguard the right and legal entitlements of women. The 73rd and 74th Amendments (1993) to the constitution of India have provided for reservation of seats in the local bodies of Panchayats and Municipalities for women, laying a strong foundation for their participation in decision making at the local level.

To see the development in women's education India is supposed to upcoming super power of the world in recent years. The increasing change in women education, the empowerment of women has been recognized as the central issue in determining the status of women. For becoming super power we have mostly to concentrate upon the women's education. By which it will force on women's empowerment. As per united national development fund for women (UNIFEM) the term women's empowerment means:

- Acquiring knowledge and understanding of gender relations and the ways in which these relations may be changed.
- Developing a sense of self-worth, a belief in one's ability to secure desired changes and the right to control one's life.
- Gaining the ability to generate choices exercise bargaining power.
- Developing the ability to organize and influence the direction of social change, to create a more just social and economic order, nationally and internationally.

LITERACY RATE IN INDIA 2022:

According to National Statistical Office (NSO) data, as of the year 2021 India's average literacy rate is 77.70%. The male literacy at the India level in 2021 stands at 84.70% & female literacy stands at 70.30%.

TABLE- 1

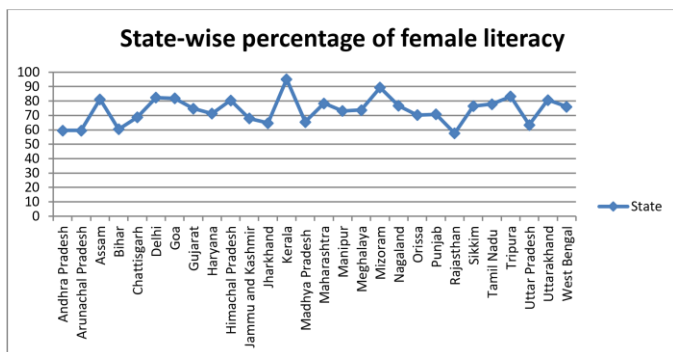
STATE-WISE PERCENTAGE OF FEMALE LITERACY IN THE COUNTRY (2022 CENSUS)

S. No	State	Female Literacy (Percent)
1	Andhra Pradesh	59.5
2	Arunachal Pradesh	59.57
3	Assam	81.2
4	Bihar	60.5
5	Chattisgarh	68.7
6	Delhi	82.4
7	Goa	81.84
8	Gujarat	74.8
9	Haryana	71.3
10	Himachal Pradesh	80.5
11	Jammu and Kashmir	68
12	Jharkhand	64.7
13	Karnataka	70.5
14	Kerala	95.2
15	Madhya Pradesh	65.5
16	Maharashtra	78.4
17	Manipur	73.17
18	Meghalaya	73.78
19	Mizoram	89.4
20	Nagaland	76.69
21	Orissa	70.3
22	Punjab	70.73
23	Rajasthan	57.6
24	Sikkim	76.43
25	Tamil Nadu	77.9
26	Tripura	83.15
27	Uttar Pradesh	63.4

28	Uttarakhand	80.7
29	West Bengal	76.1

Source: Survey by National Statistical Office (NSO).

FIGURE- 1 STATE-WISE PERCENTAGE OF FEMALE LITERACY IN THE COUNTRY (2022 CENSUS)



As per the National Statistical Office (NSO) data, Kerala ranked highest in the list with 95.2 per cent. Mizoram stood second with 89.4 per cent. While Rajasthan ranked lowest in the list with 57.6 per cent.

CONSTRAINTS TO WOMEN EMPOWERMENT:

There are several constraints that check the process of women empowerment in India. Social norms and family structures in developing countries like India, manifests and perpetuate the subordinate status of women. One of such norms is the continuing preference for a son over the birth of a girl child, which is present in almost all societies and communities. The hold of this preference has strengthened rather than weakened and its most glaring evidence is in the falling sex ratio (Seth, 2001). The society is more biased in favor of male child in respect of education, nutrition and other opportunities. The root cause of this type of attitude lies in the belief that male child inherits the clan in India.

Poverty is also the key element. Vast majority of women in India face problems due to poverty. It is another important factor that poses challenge in realizing women’s empowerment. In a poor family, female are the main victims; they are malnourished and are denied the opportunity of better education and other basic facilities. But what if women become financially independent. They may lead a better life both in their house and society and are no longer victims of poverty and other social inequalities. Once women become financially independent, no one can stop her to enjoy her rights. For instance, there are myriads of Indian women who shine like a star and also help other women to stand on their own feet.

MEASURES TAKEN BY THE GOVERNMENT FOR GENDER EQUALITY/SOCIO-ECONOMIC DEVELOPMENT/EMPOWERMENT OF WOMEN:

The Ministry of Women and Child Development is administering following schemes for gender equality/socio-economic development/empowerment of

women:-

- i. Swadhar and Short Stay Homes to provide relief and rehabilitation to destitute women and women in distress.
- ii. Working Women Hostels for ensuring safe accommodation for working women away from their place of residence.
- iii. Support to training and employment Program for Women (STEP) to ensure sustainable employment and income generation for marginalized and asset-less rural and urban poor woman across the country.
- iv. Rashtriya Mahila Kosh (RMK) to provide micro-finance services to bring about the socio-economic upliftment of poor women.
- v. National Mission for Empowerment of Women (NMEW) to strengthen the overall processes that promotes all-round Development of Women.
- vi. Rajiv Gandhi National Creche Scheme for Children of Working Mothers (including single mother) to provide day care facilities for running a crèche of 25 children in the age group 0-6 years from families having monthly income of less than Rs 12,000.
- vii. One Stop Centre to provide integrated support and assistance to women affected by violence.
- viii. Scheme for Universalization of Women Helpline intended to provide 24 hours immediate and emergency response to women affected by violence.
- ix. Sabla Scheme for holistic development of adolescent girls in the age group of 11-18 years.
- x. In order to strengthen the process of gender budgeting the Ministry of Women and Child Development has been undertaking various capacity building measures for the officials of the State Governments by organizing training programs/workshops regularly.

In order to improve employability a separate Ministry of Skill Development and Entrepreneurship has been created.

Equal Remuneration Act, 1973 provides for payment of equal remuneration to men and women workers for the same work of similar nature without any discrimination. In order to ensure social security to the workers including women in the unorganized sector, the Government has enacted the Unorganized Workers’ Social Security Act 2008.

The Maternity Benefit Act, 1961 regulates employment of women in certain establishments for a certain period (12 weeks) before and after childbirth and provides for maternity and other benefits.

Indira Gandhi Matritva Sahyog Yojana (IGMSY) Scheme is being implemented as Conditional Maternity Benefit for pregnant and lactating women to improve health and nutrition status to better enabling environment by providing cash incentives to pregnant and nursing mother

to partly compensate wage loss both prior to and after delivery.

CONCLUSION:

While discussing the status of women in India, various indicators of women empowerment are analyzed. It was found that education is essential to improve the condition of women in India. Women need to understand the significance of education. Only education can help them to live a better life where they can enjoy every right in the society equal to men. Once they educate and become economically empower, society' attitude towards them changed for forever.

Currently, women of India are relatively disempowered and they enjoy somewhat lower status than that of men. Highest literacy rate of women in India is found in Kerala (95.2), and we can see that women in Kerala are in better position in comparison to the areas where literacy rate is low like Rajasthan, Bihar and Andhra Pradesh. However, government is taking initiatives to change the scenarios but despite of so many efforts undertaken by government and NGOs the picture at present is not satisfactory. Till then we cannot say that women are empowered in India in its real sense.

REFERENCES

1. Agarwal S. P. (2001) Women's Education in India (1995-98) Present Status, Perspective, Plan, Statistical Indicators with Global View, Vol III Concept Publications Co, New Delhi.

2. Agarwal, B. (2001) Gender Inequality, Cooperation and Environmental Sustainability. In Economic Inequality, Collective Action, and Environmental Sustainability., ed. P. Bardhan, S. Allocation. The Quarterly Journal of Economics, 117(3): 963-995.

3. Anil, B. (2004) Education, Employment and Empowering Women, Serials Publication, New Delhi, Pp.332.

4. Batliwala, Srilatha. (1994) The meaning of

Women's Empowerment: New Concepts from Action. Pp. 127-138 in Population Policies Reconsidered: Health, empowerment and Rights. G. Sen, A. Germain and L.C. Chen, eds. Cambridge, MA: Harvard University Press.

5. Duflo, E. (2012) Women Empowerment and Economic Development, Journal of Economic Literature, Pp. 1051-1079.

6. Govt. of Assam (2003): "Women Striving in an Unequal World" in Assam Human Development Report, 2003.

7. Kallave M.G., (2012) Women Empowerment Issues and Challenges. Review of Research Vol. 1(12), Pp.1-4.

8. Nalini Srivastava (2005) Empowerment of Women through Higher Education, University News, Vol.43, No. 47, Nov. 21-27.

9. Nayak, Purusottam and Mahanta, Bidisha (2009) Women Empowerment in India. SSRN Electronic Journal.

10. Rao R.K. (2001) Women and Education, Kalpaz Publications, Delhi.

11. Seth, Mira (2001) Women and Development- The Indian Experience, Sage Publication, New Delhi

12. Suguna (2001) Women's Empowerment: Concept and Framework, Social Welfare, December.

13. Sumitra, Kumari (2006) Dynamics of Women Empowerment, Alfa Publications, New Delhi, Pp-340.



THE MUNICIPAL SOLID-WASTE MANAGEMENT'S

BHAGWAT PRAKASH DAYMA	PH.D. RESEARCH SCHOLAR, DEPARTMENT OF GEOGRAPHY, J.N.V. UNIVERSITY, JODHPUR.
DR.SHYAM S KHINCHI	HEAD OF DEPARTMENT, DEPARTMENT OF GEOGRAPHY, DR. B.R. AMBEDKAR GOVT. COLLEGE, SRI GANGANAGAR.
DR.MAHESH KUMAR GAUR	SENIOR, PRINCIPAL SCIENTIST, CAZRI / ICAR, JODHPUR(RAJASTHAN)
RAMESH KUMAR RANA	PH.D.RESEARCH SCHOLAR, DEPARTMENT OF GEOGRAPHY, J.N.V.UNIVERSITY,JODHPUR.
DR .NARESH KUMAR OJHA	ASSISTANT PROFESSOR, DEPARTMENT OF GEOGRAPHY, SHRI AAI MATA GOVT. GIRLS COLLEGE, SOJAT (PALI.)

ABSTRACT:

KEYWORDS:

The solid-waste management, the collecting, treating, and disposing of solid material that is discarded because it has served its purpose or is no longer useful. Improper disposal of municipal solid waste can create unsanitary conditions, and these conditions in turn can lead to pollution of the environment and to outbreaks of vector-borne disease—that is, diseases spread by rodents and insects. The tasks of solid-waste management present complex technical challenges. They also pose a wide variety of administrative, economic, and social problems that must be managed and solved.

HISTORICAL BACKGROUND

Early waste disposal - In ancient cities, wastes were thrown onto unpaved streets and roadways, where they were left to accumulate. It was not until 320 BCE in Athens that the first known law forbidding this practice was established. At that time a system for waste removal began to evolve in Greece and in the Greek-dominated cities of the eastern Mediterranean. In ancient Rome, property owners were responsible for cleaning the streets fronting their property. But organized waste collection was associated only with state-sponsored events such as parades. Disposal methods were very crude, involving open pits located just outside the city walls. As populations increased, efforts were made to transport waste farther out from the cities.

After the fall of Rome, waste collection and municipal sanitation began a decline that lasted

throughout the Middle Ages. Near the end of the 14th century, scavengers were given the task of carting waste to dumps outside city walls. But this was not the case in smaller towns, where most people still threw waste into the streets. It was not until 1714 that every city in England was required to have an official scavenger. Toward the end of the 18th century in America, municipal collection of garbage was begun in Boston, New York City, and Philadelphia. Waste disposal methods were still very crude, however. Garbage collected in Philadelphia, for example, was simply dumped into the Delaware River downstream from the city.

DEVELOPMENTS IN WASTE MANAGEMENT

A technological approach to solid-waste management began to develop in the latter part of the 19th century. Watertight garbage cans were first introduced in the United States, and sturdier vehicles were used to collect and transport wastes. A significant development in solid-waste treatment and disposal practices was marked by the construction of the first refuse incinerator in England in 1874. By the beginning of the 20th century, 15 percent of major American cities were incinerating solid waste. Even then, however, most of the largest cities were still using primitive disposal methods such as open dumping on land or in water.

Technological advances continued during the first half of the 20th century, including the development of garbage grinders, compaction trucks, and pneumatic collection

systems. By mid-century, however, it had become evident that open dumping and improper incineration of solid waste were causing problems of pollution and jeopardizing public health. As a result, sanitary landfills were developed to replace the practice of open dumping and to reduce the reliance on waste incineration. In many countries waste was divided into two categories, hazardous and nonhazardous, and separate regulations were developed for their disposal. Landfills were designed and operated in a manner that minimized risks to public health and the environment. New refuse incinerators were designed to recover heat energy from the waste and were provided with extensive air pollution control devices to satisfy stringent standards of air quality. Modern solid-waste management plants in most developed countries now emphasize the practice of recycling and waste reduction at the source rather than incineration and land disposal.

SOLID-WASTE CHARACTERISTICS

Composition and properties - The sources of solid waste include residential, commercial, institutional, and industrial activities. Certain types of wastes that cause immediate danger to exposed individuals or environments are classified as hazardous; these are discussed in the article hazardous-waste management. All nonhazardous solid waste from a community that requires collection and transport to a processing or disposal site is called refuse or municipal solid waste (MSW). Refuse includes garbage and rubbish. Garbage is mostly decomposable food waste; rubbish is mostly dry material such as glass, paper, cloth, or wood. Garbage is highly putrescible or decomposable, whereas rubbish is not. Trash is rubbish that includes bulky items such as old refrigerators, couches, or large tree stumps. Trash requires special collection and handling.

Construction and demolition (C&D) waste (or debris) is a significant component of total solid waste quantities (about 20 percent in the United States), although it is not considered to be part of the MSW stream. However, because C&D waste is inert and nonhazardous, it is usually disposed of in municipal sanitary landfills.

Another type of solid waste, perhaps the fastest-growing component in many developed countries, is electronic waste, or e-waste, which includes discarded computer equipment, televisions, telephones, and a variety of other electronic devices. Concern over this type of waste is escalating. Lead, mercury, and cadmium are among the materials of concern in electronic devices, and governmental policies may be required to regulate their recycling and disposal.

Solid-waste characteristics vary considerably among communities and nations. American refuse is usually lighter, for example, than European or Japanese refuse. In the United States paper and paperboard products make up close to 40 percent of the total weight of MSW; food waste accounts for less than 10 percent. The rest is a mixture of yard trimmings, wood, glass, metal,

plastic, leather, cloth, and other miscellaneous materials. In a loose or uncompacted state, MSW of this type weighs approximately 120 kg per cubic metre (200 pounds per cubic yard). These figures vary with geographic location, economic conditions, season of the year, and many other factors. Waste characteristics from each community must be studied carefully before any treatment or disposal facility is designed and built.

GENERATION AND STORAGE

Rates of solid-waste generation vary widely. In the United States, for example, municipal refuse is generated at an average rate of approximately 2 kg (4.5 pounds) per person per day. Japan generates roughly half this amount, yet in Canada the rate is 2.7 kg (almost 6 pounds) per person per day. In some developing countries the average rate can be lower than 0.5 kg (1 pound) per person per day. These data include refuse from commercial, institutional, and industrial as well as residential sources. The actual rates of refuse generation must be carefully determined when a community plans a solid-waste management project.

Most communities require household refuse to be stored in durable, easily cleaned containers with tight-fitting covers in order to minimize rodent or insect infestation and offensive odours. Galvanized metal or plastic containers of about 115-litre (30-gallon) capacity are commonly used, although some communities employ larger containers that can be mechanically lifted and emptied into collection trucks. Plastic bags are frequently used as liners or as disposable containers for curbside collection. Where large quantities of refuse are generated—such as at shopping centres, hotels, or apartment buildings—dumpsters may be used for temporary storage until the waste is collected. Some office and commercial buildings use on-site compactors to reduce the waste volume.

SOLID-WASTE COLLECTION

Collecting and transporting—Proper solid-waste collection is important for the protection of public health, safety, and environmental quality. It is a labour-intensive activity, accounting for approximately three-quarters of the total cost of solid-waste management. Public employees are often assigned to the task, but sometimes it is more economical for private companies to do the work under contract to the municipality or for private collectors to be paid by individual home owners. A driver and one or two loaders serve each collection vehicle. These are typically trucks of the enclosed, compacting type, with capacities up to 30 cubic metres (40 cubic yards). Loading can be done from the front, rear, or side. Compaction reduces the volume of refuse in the truck to less than half of its loose volume.

The task of selecting an optimal collection route is a complex problem, especially for large and densely populated cities. An optimal route is one that results in the most efficient use of labour and equipment, and selecting such a route requires the application of computer analyses

that account for all the many design variables in a large and complex network. Variables include frequency of collection, haulage distance, type of service, and climate. Collection of refuse in rural areas can present a special problem, since the population densities are low, leading to high unit costs.

Refuse collection usually occurs at least once per week because of the rapid decomposition of food waste. The amount of garbage in the refuse of an individual home can be reduced by garbage grinders, or garbage disposals. Ground garbage puts an extra load on sewerage systems, but this can usually be accommodated. Many communities now conduct source separation and recycling programs, in which homeowners and businesses separate recyclable materials from garbage and place them in separate containers for collection. In addition, some communities have drop-off centres where residents can bring recyclables.

TRANSFER STATIONS

If the final destination of the refuse is not near the community in which it is generated, one or more transfer stations may be necessary. A transfer station is a central facility where refuse from many collection vehicles is combined into a larger vehicle, such as a tractor-trailer unit. Open-top trailers are designed to carry about 76 cubic metres (100 cubic yards) of uncompacted waste to a regional processing or disposal location. Closed compactor-type trailers are also available, but they must be equipped with ejector mechanisms. In a direct discharge type of station, several collection trucks empty directly into the transport vehicle. In a storage discharge type of station, refuse is first emptied into a storage pit or onto a platform, and then machinery is used to hoist or push the solid waste into the transport vehicle. Large transfer stations can handle more than 500 tons of refuse per day.

SOLID-WASTE TREATMENT AND DISPOSAL

Once collected, municipal solid waste may be treated in order to reduce the total volume and weight of material that requires final disposal. Treatment changes the form of the waste and makes it easier to handle. It can also serve to recover certain materials, as well as heat energy, for recycling or reuse.

INCINERATION – FURNACE OPERATION

Burning is a very effective method of reducing the volume and weight of solid waste, though it is a source of greenhouse gas emissions. In modern incinerators the waste is burned inside a properly designed furnace under very carefully controlled conditions. The combustible portion of the waste combines with oxygen, releasing mostly carbon dioxide, water vapour, and heat. Incineration can reduce the volume of uncompacted waste by more than 90 percent, leaving an inert residue of ash, glass, metal, and other solid materials called bottom ash. The gaseous by-products of incomplete combustion, along with finely divided particulate material called fly ash, are

carried along in the incinerator airstream. Fly ash includes cinders, dust, and soot. In order to remove fly ash and gaseous by-products before they are exhausted into the atmosphere, modern incinerators must be equipped with extensive emission control devices. Such devices include fabric baghouse filters, acid gas scrubbers, and electrostatic precipitators. (*See also air pollution control.*) Bottom ash and fly ash are usually combined and disposed of in a landfill. If the ash is found to contain toxic metals, it must be managed as a hazardous waste.

Municipal solid-waste incinerators are designed to receive and burn a continuous supply of refuse. A deep refuse storage pit, or tipping area, provides enough space for about one day of waste storage. The refuse is lifted from the pit by a crane equipped with a bucket or grapple device. It is then deposited into a hopper and chute above the furnace and released onto a charging grate or stoker. The grate shakes and moves waste through the furnace, allowing air to circulate around the burning material. Modern incinerators are usually built with a rectangular furnace, although rotary kiln furnaces and vertical circular furnaces are available. Furnaces are constructed of refractory bricks that can withstand the high combustion temperatures.

Combustion in a furnace occurs in two stages: primary and secondary. In primary combustion, moisture is driven off, and the waste is ignited and volatilized. In secondary combustion, the remaining unburned gases and particulates are oxidized, eliminating odours and reducing the amount of fly ash in the exhaust. When the refuse is very moist, auxiliary gas or fuel oil is sometimes burned to start the primary combustion.

In order to provide enough oxygen for both primary and secondary combustion, air must be thoroughly mixed with the burning refuse. Air is supplied from openings beneath the grates or is admitted to the area above. The relative amounts of this underfire air and overfire air must be determined by the plant operator to achieve good combustion efficiency. A continuous flow of air can be maintained by a natural draft in a tall chimney or by mechanical forced-draft fans.

ENERGY RECOVERY

The energy value of refuse can be as much as one-third that of coal, depending on the paper content, and the heat given off during incineration can be recovered by the use of a refractory-lined furnace coupled to a boiler. Boilers convert the heat of combustion into steam or hot water, thus allowing the energy content of the refuse to be recycled. Incinerators that recycle heat energy in this way are called waste-to-energy plants. Instead of a separate furnace and boiler, a water-tube wall furnace may also be used for energy recovery. Such a furnace is lined with vertical steel tubes spaced closely enough to form continuous sections of wall. The walls are insulated on the outside in order to reduce heat loss. Water circulating through the tubes absorbs heat to produce steam, and it also helps to control combustion temperatures without the

need for excessive air, thus lowering air pollution control costs.

Waste-to-energy plants operate as either mass burn or refuse-derived fuel systems. A mass burn system uses all the refuse, without prior treatment or preparation. A refuse-derived fuel system separates combustible wastes from noncombustibles such as glass and metal before burning. If a turbine is installed at the plant, both steam and electricity can be produced in a process called cogeneration.

Waste-to-energy systems are more expensive to build and operate than plain incinerators because of the need for special equipment and controls, highly skilled technical personnel, and auxiliary fuel systems. On the other hand, the sale of generated steam or electricity offsets much of the extra cost, and recovery of heat energy from refuse is a viable solid-waste management option from both an engineering and an economic point of view. About 80 percent of municipal refuse incinerators in the United States are waste-to-energy facilities.

Composting- Another method of treating municipal solid waste is composting, a biological process in which the organic portion of refuse is allowed to decompose under carefully controlled conditions. Microbes metabolize the organic waste material and reduce its volume by as much as 50 percent. The stabilized product is called compost or humus. It resembles potting soil in texture and odour and may be used as a soil conditioner or mulch.

Composting offers a method of processing and recycling both garbage and sewage sludge in one operation. As more stringent environmental rules and siting constraints limit the use of solid-waste incineration and landfill options, the application of composting is likely to increase. The steps involved in the process include sorting and separating, size reduction, and digestion of the refuse.

SORTING AND SHREDDING

The decomposable materials in refuse are isolated from glass, metal, and other inorganic items through sorting and separating operations. These are carried out mechanically, using differences in such physical characteristics of the refuse as size, density, and magnetic properties. Shredding or pulverizing reduces the size of the waste articles, resulting in a uniform mass of material. It is accomplished with hammer mills and rotary shredders.

DIGESTING AND PROCESSING

Pulverized waste is ready for composting either by the open windrow method or in an enclosed mechanical facility. Windrows are long, low mounds of refuse. They are turned or mixed every few days to provide air for the microbes digesting the organics. Depending on moisture conditions, it may take five to eight weeks for complete digestion of the waste. Because of the metabolic action of aerobic bacteria, temperatures in an active compost pile reach about 65 °C (150 °F), killing pathogenic organisms

that may be in the waste material.

Open windrow composting requires relatively large land areas. Enclosed mechanical composting facilities can reduce land requirements by about 85 percent. Mechanical composting systems employ one or more closed tanks or digesters equipped with rotating vanes that mix and aerate the shredded waste. Complete digestion of the waste takes about one week.

Digested compost must be processed before it can be used as a mulch or soil conditioner. Processing includes drying, screening, and granulating or pelletizing. These steps improve the market value of the compost, which is the most serious constraint to the success of composting as a waste management option. Agricultural demand for digested compost is usually low because of the high cost of transporting it and because of competition with inorganic chemical fertilizers.

SANITARY LANDFILL

Land disposal is the most common management strategy for municipal solid waste. Refuse can be safely deposited in a sanitary landfill, a disposal site that is carefully selected, designed, constructed, and operated to protect the environment and public health. One of the most important factors relating to landfilling is that the buried waste never comes in contact with surface water or groundwater. Engineering design requirements include a minimum distance between the bottom of the landfill and the seasonally high groundwater table. Most new landfills are required to have an impermeable liner or barrier at the bottom, as well as a system of groundwater-monitoring wells. Completed landfill sections must be capped with an impermeable cover to keep precipitation or surface runoff away from the buried waste. Bottom and cap liners may be made of flexible plastic membranes, layers of clay soil, or a combination of both.

CONSTRUCTING THE LANDFILL

The basic element of a sanitary landfill is the refuse cell. This is a confined portion of the site in which refuse is spread and compacted in thin layers. Several layers may be compacted on top of one another to a maximum depth of about 3 metres (10 feet). The compacted refuse occupies about one-quarter of its original loose volume. At the end of each day's operation, the refuse is covered with a layer of soil to eliminate windblown litter, odours, and insect or rodent problems. One refuse cell thus contains the daily volume of compacted refuse and soil cover. Several adjacent refuse cells make up a lift, and eventually a landfill may comprise two or more lifts stacked one on top of the other. The final cap for a completed landfill may also be covered with a layer of topsoil that can support vegetative growth.

Daily cover soil may be available on-site, or it may be hauled in and stockpiled from off-site sources. Various types of heavy machinery, such as crawler tractors or rubber-tired dozers, are used to spread and compact the refuse and soil. Heavy steel-wheeled compactors may also

be employed to achieve high-density compaction of the refuse.

The area and depth of a new landfill are carefully staked out, and the base is prepared for construction of any required liner and leachate-collection system. Where a plastic liner is used, at least 30 cm (12 inches) of sand is carefully spread over it to provide protection from landfill vehicles. At sites where excavations can be made below grade, the trench method of construction may be followed. Where this is not feasible because of topography or groundwater conditions, the area method may be practiced, resulting in a mound or hill rising above the original ground. Since no ground is excavated in the area method, soil usually must be hauled to the site from some other location. Variations of the area method may be employed where a landfill site is located on sloping ground, in a valley, or in a ravine. The completed landfill eventually blends in with the landscape.

CONTROLLING BY-PRODUCTS

Organic material buried in a landfill decomposes by anaerobic microbial action. Complete decomposition usually takes more than 20 years. One of the by-products of this decomposition is methane gas. Methane is poisonous and explosive when diluted in the air, and it is a potent greenhouse gas. It can also flow long distances through porous layers of soil, and, if it is allowed to collect in basements or other confined areas, dangerous conditions may arise. In modern landfills, methane movement is controlled by impermeable barriers and by gas-venting systems. In some landfills the methane gas is collected and recovered for use as a fuel, either directly or as a component of biogas.

A highly contaminated liquid called leachate is another by-product of decomposition in sanitary landfills. Most leachate is the result of runoff that infiltrates the refuse cells and comes in contact with decomposing garbage. If leachate reaches the groundwater or seeps out onto the ground surface, serious environmental pollution problems can occur, including the possible contamination of drinking-water supplies. Methods of controlling leachate include the interception of surface water in order to prevent it from entering the landfill and the use of impermeable liners or barriers between the waste and the groundwater. New landfill sites should also be provided with groundwater-monitoring wells and leachate-collection and treatment systems.

IMPORTANCE IN WASTE MANAGEMENT

In communities where appropriate sites are available, sanitary landfills usually provide the most economical option for disposal of nonrecyclable refuse. However, it is becoming increasingly difficult to find sites that offer adequate capacity, accessibility, and environmental conditions. Nevertheless, landfills will always play a key role in solid-waste management. It is not possible to recycle all components of solid waste, and there will always be residues from incineration and other treatment processes that will eventually require disposal

underground. In addition, landfills can actually improve poor-quality land. In some communities properly completed landfills are converted into recreational parks, playgrounds, or golf courses.

Recycling - Separating, recovering, and reusing components of solid waste that may still have economic value is called recycling. One type of recycling is the recovery and reuse of heat energy, a practice discussed separately in incineration. Composting can also be considered a recycling process, since it reclaims the organic parts of solid waste for reuse as mulch or soil conditioner. Still other waste materials have potential for reuse. These include paper, metal, glass, plastic, and rubber, and their recovery is discussed here.

Separation- Before any material can be recycled, it must be separated from the raw waste and sorted. Separation can be accomplished at the source of the waste or at a central processing facility. Source separation, also called curbside separation, is done by individual citizens who collect newspapers, bottles, cans, and garbage separately and place them at the curb for collection. Many communities allow "commingling" of no paper recyclables (glass, metal, and plastic). In either case, municipal collection of source-separated refuse is more expensive than ordinary refuse collection.

In lieu of source separation, recyclable materials can be separated from garbage at centralized mechanical processing plants. Experience has shown that the quality of recyclables recovered from such facilities is lowered by contamination with moist garbage and broken glass. The best practice, as now recognized, is to have citizens separate refuse into a limited number of categories, including newspaper; magazines and other wastepaper; commingled metals, glass, and plastics; and garbage and other nonrecyclables. The newspaper, other paper wastes, and commingled recyclables are collected separately from the other refuse and are processed at a centralized material recycling facility, or MRF (pronounced "murf" in waste-management jargon). A modern MRF can process about 300 tons of recyclable wastes per day.

At a typical MRF, commingled recyclables are loaded onto a conveyor. Steel cans ("tin" cans are actually steel with only a thin coating of tin) are removed by an electromagnetic separator, and the remaining material passes over a vibrating screen in order to remove broken glass. Next, the conveyor passes through an air classifier, which separates aluminum and plastic containers from heavier glass containers. Glass is manually sorted by colour, and aluminum cans are separated from plastics by an eddy-current separator, which repels the aluminum from the conveyor belt.

Reuse-Recovered broken glass can be crushed and used in asphalt pavement. Colour-sorted glass is crushed and sold to glass manufacturers as cullet, an essential ingredient in glassmaking. Steel cans are baled and shipped to steel mills as scrap, and aluminum is baled or compacted for reuse by smelters. Aluminum is one of the smallest components of

municipal solid waste, but it has the highest value as a recyclable material. Recycling of plastic is a challenge, mostly because of the many different polymeric materials used in its production. Mixed thermoplastics can be used only to make lower-quality products, such as “plastic lumber.”

In the paper stream, old newspapers are sorted by hand on a conveyor belt in order to remove corrugated materials and mixed papers. They are then baled or loose-loaded into trailers for shipment to paper mills, where they are reused in the making of more newspaper. Mixed paper is separated from corrugated paper for sale to tissue mills. Although the processes of pulping, de-inking, and screening wastepaper are generally more expensive than making paper from virgin wood fibres, the market for recycled paper has grown with the establishment of more processing plants.

Rubber is sometimes reclaimed from solid waste and shredded, reformed, and remolded in a process called revulcanization, but it is usually not as strong as the original material. Shredded rubber can be used as an additive in asphalt pavements and artificial turf and is also sold directly as an outdoor mulch. Discarded tires may be employed as swings and other recreational structures for use by children in “tire playgrounds.”

In general, the most difficult problem associated with the recycling of any solid-waste material is finding applications and suitable markets. Recycling by itself will not solve the growing problem of solid-waste management and disposal. There will always be some unusable and completely valueless solid residue requiring final disposal.

REFERENCES

1. Asnani, P.U. (2006). 'Indian infrastructure report'. Solid Waste Management. (accessed on 12 December 2009), 160-189, Chapter 8, available at http://www.3inetwork.org/report/IIR2006/solid_waste.pdf Google Scholar

2. (2004). '(Urban local bodies) Environmental issues for the year ended 31st march 2004'. (accessed on 12 December 2009) 34-38 Audit Report Chapter 7 available at <http://www.saiindia.gov.in/cag/file/chapter-7.pdf> Google Scholar

3. Chattopadhyay, S. , Datta, A. , Ray, S. (2009). 'Municipal solid waste management in Kolkata, India – a review'. Waste Management. 29, 4, 1449-1458 Google Scholar

4. CPCB (2000a). 'Management of municipal solid waste'. (accessed on 24 July 2009), Delhi, India: Ministry of Environment and Forest , available at <http://www.cpcb.nic.in/divisionheadoffice/--/.pdf> Google Scholar

5. CPCB (2000b). 'Status of municipal solid waste generation, collection, treatment and disposal in Class I cities'. Delhi, India: Ministry of Environment and Forest Google Scholar

6. CPHEEO (2000). Manual on Municipal Solid Waste Management. India: Central Public Health and Environmental Engineering Organization, Ministry of Urban Development, Government of India Google Scholar

7. Gupta, S. , Mohan, K. , Prasad, R. , Gupta, S. , Kansal, A. (1998). 'Solid waste management in India: options and opportunities'. Resource, Conservation and Recycling. 24, 2, 137-154 Google Scholar

8. 'Indian standard. Methods of analysis of solid wastes (excluding industrial solid wastes)'. New Delhi: Indian Standard Institute IS:10158-1982 (reaffirmed 1995) Google Scholar

9. 'Indian standard. Methods for physical analysis and determination of moisture in solid wastes (excluding industrial solid wastes)'. New Delhi: Indian Standard Institute IS:9235-1979 (reaffirmed 1997) Google Scholar

10. Joseph, K. (2002). 'Perspectives of solid waste management in India'. (accessed on 24 July 2009), International Symposium on Technology and Management of the Treatment and Reuse of the MSW, Shanghai, China, available at <http://www.swlf.ait.ac.th/2002/MSWM/INDIA.pdf> Google Scholar

11. Kumar, S. (2005). Municipal Solid Waste Management in India: Present Practices and Future Challenges. (accessed on 12 December 2009, available at <http://cdm.unfec.int/filestorage/J/C/H/.pdf> Google Scholar

12. Kumar, S. , Bhattacharya, J.K. , Vaidya, A.N. , Chakrabarti, T. , Devotta, S. , Akolkar, A.B. (2009). 'Assessment of the status of municipal solid waste management in metro cities, state capitals, class I cities and class II towns in India: an insight'. Waste Management. 29, 2, 883-895 Google Scholar

13. Manaf, L.A. , Samah, M.A.A. , Zukki, N.I.M. (2009). 'Municipal solid waste management in Malaysia: practices and challenges'. Waste Management. 29, 11, 2902-2906 Google Scholar

14. Narayana, T. (2009). 'Municipal solid waste management in India: from waste disposal to recovery of resources?'. Waste Management. 29, 3, 1163-1166 Google Scholar

15. Nareshkumar, K., Goel, S. (2009). 'Characterization of municipal solid waste and a proposed management plan for Kharagpur, West Bengal, India'. Resources, Conservation and Recycling. 53, 3, 166-174 Google Scholar

16. National Building Construction Corporation Ltd (NBCCL) (2004). Scheme for Solid Waste Management and Drainage for Jodhpur. Ministry of Urban Development, Government of India Google Scholar

17. Ngoc, U.N., Schnitzer, H. (2009). 'Sustainable solutions for solid waste management in Southeast Asian countries'. Waste Management. 29, 6, 1982-1995 Google Scholar

18. Pokhrel, D., Viraraghvan, T. (2005). 'Municipal solid waste management in Nepal: practices and

challenges'. Waste Management. 25, 5, 555-562 Google Scholar

19. Sharholly, M. , Ahmad, K. , Mahmood, G. , Trivedi, R.C. (2008). 'Municipal solid waste management in Indian cities – a review'. Waste Management. 28, 2, 459-467 Google Scholar

20. Shekdar, A.V. (2009). 'Sustainable solid waste management: an integrated approach for Asian countries'. Waste Management. 29, 4, 1428-1448 Google Scholar

21. Talyan, V., Dahiha, R.P., Shreekrishnan, T.R. (2008). 'State of municipal solid, waste management in Delhi the capital of India'. Waste Management. 28, 7, 1276-1287 Google Scholar

22. Tchobanoglous, G. , Theisen, H. , Vigil, S.A. (1993). Integrated Solid Waste Management. McGraw Hill International Edition, Singapore: McGraw Hill Companies Google Scholar

23. Zia, H. , Devdas, V. (2008). 'Urban solid waste management in Kanpur – opportunities and perspectives'. Habital International. 32, 1, 58-73 Google Scholar



ACADEMIC STRESS IN RELATION TO EMOTIONAL INTELLIGENCE AMONG RURAL AND URBAN ADOLESCENTS

DR. VARSHA

PSYCHOLOGY DEPARTMENT, JAI NARAIN VYAS UNIVERSITY, JODHPUR (RAJ)

DR. MANISH JAIPAL

PSYCHOLOGY DEPARTMENT, JAI NARAIN VYAS UNIVERSITY, JODHPUR

ABSTRACT:

This paper examines the relationship of Emotional Intelligence and Academic stress among rural and urban adolescents. 320 adolescents between the age group of 13-16 years, 160 rural and 160 urban including (80 boys and 80 girls) from Jodhpur district were selected randomly to know the relationship between the academic stress and emotional intelligence. Academic Anxiety Scale by A.K. Singh and A. Sen Gupta and Emotional Quotient Test by Dalip Singh and N. K. Chadda were used. The result of the present study indicates that private boys show very low positive correlation while girls show low negative correlation. Urban private school boys show very low negative correlations and girls show positive correlation except for emotional intelligence which is low negative.

KEYWORDS:

ACADEMIC STRESS, EMOTIONAL INTELLIGENCE, AND ADOLESCENTS.

INTRODUCTION:

Stress is common among adolescents life. WHO defines 'Adolescents' as individuals between age group of 10-19 years. It is the age when hormones changes occur and causes multiple issues in their life. WHO defines stress as "the reaction people may have when presented with demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope". It is not a disease. However if stress is intense and goes on for some time, it can lead to mental and physical ill health (for example, depression, nervous breakdown, anxiety, behavioural problems and irritability etc).

Bisht (1989) has defined academic stress as a demand related to academics that tax or exceed the available resources (internal or external) as cognitively appeared by the student involved.

According to her, academic stress reflects perception of individual's academic frustration, academic conflict, academic pressure and academic anxiety. Academic stress is mental distress with respect to some anticipated associated with academic failure or even unawareness to the possibility of such failure. Students have to face many academic demands, for instance a school examination, answering questions in the class, mates, fulfilling teachers and parent's academic expectations. These demands may tax or exceed available resources of the students. As a consequence they can be under stress, since the demand is related to achievement of an academic goal. So, it can be related to the achievement of an academic goal.

Nowadays stress has become part of students' academic life due to the various internal and external expectations placed upon their shoulders. It is now understood as a lifestyle crisis (Masih & Gulrez, 2006). The only task

students were expected to undertake was to study and studying was never perceived as stressful. Lee & Larson (2000) explain this stress as an interaction between environmental stressors, students' appraisal and reactions for the same. It has now become a grave reality that is termed as a "career stopper" (Kadapatti & Vijayalaxmi, 2012). It therefore, becomes a significant cause of concern as it is symptomatic of rising mental health concerns in India (Nadamuri & Ch, 2011)

Further, Singh (2003) defines "Emotional Intelligence as the ability of an individual to appropriately and successfully respond to a vast variety of emotional stimuli being elicited from the inner self and immediate environment. According to him emotional intelligence constituted from three psychological dimensions emotional competency, emotional maturity and emotional sensitivity. It motivates an individual to recognize truthfully, interpret honestly and handle tactfully the dynamics of human behavior. The emotional competency involves various competencies like tackling emotional upsets, high self-esteem, tactful response to emotional stimuli and handing egoism. Emotional maturity involves self-awareness, developing others, delaying gratification, adaptability and flexibility. Emotional sensitivity involves understanding threshold of emotional arousal, empathy, improving interpersonal relationship and communicability of emotions. Emotional intelligence helps adolescents to deal with the academic stress.

OBJECTIVE:

- To study the relationship between academic stress and emotional intelligence among rural and urban adolescents of Jodhpur district.

METHODOLOGY:

TABLE-1
DISTRIBUTION OF SAMPLE

Rural		Urban	
Boys	Girls	Boys	Girls
80	80	80	80
160		160	
Total - 320			

A sample of 320 adolescents was selected using random sampling method among which 160 adolescents hail from urban areas and 160 rural areas of Jodhpur district. In each group 80 were boys and 80 were girls. All the students selected were belonging to IX and X standard in

the age group of 13-16. Three data gathering tools were used namely:

- Academic Anxiety Scale by Dr. A. K. Singh and Dr. A. Sen Gupta
- Emotional Quotient Scale by Dr. Dalip Singh and Dr. N. K. Chadda

RESULTS AND INTERPRETATION:

TABLE-2 SHOWS CORRELATION BETWEEN ACADEMIC STRESS AND EMOTIONAL INTELLIGENCE AMONG RURAL PRIVATE/GOVERNMENT SCHOOL'S BOYS AND GIRLS

School Location	Institutional Sector	Gender	N	Sensitivity	Maturity	Competency	EI Total
Rural	Private	Boys	40	0.245	0.297	0.096	0.24
Rural	Private	Girls	40	-0.029	-0.026	-0.195	-0.177
Rural	Government	Boys	40	0.015	-0.013	-0.051	-0.034
Rural	Government	Girls	40	0.066	0.047	-0.097	-0.037

****Significant at .01 level; *Significant at .05 level**

Table-2 shows correlation between academic stress and emotional intelligence and its subscales among rural boys and girls. Among rural private school's boys there is a low positive correlation between emotional sensitivity and as Pearson $r = .245$ at $N=40$. Similarly, results were found among emotional maturity and academic stress as Pearson $r = -.297$ at $N=40$. But correlation between emotional competency and academic stress was very low positive as Pearson $r = 0.096$ at $N=40$. Overall correlation between emotional intelligence and academic stress was low positive as Pearson $r = 0.24$ at $N=40$.

Among rural private school's girls there is a very low negative correlation between academic stress and sensitivity as Pearson $r = -.029$ at $N=40$. Similarly, among academic stress and maturity very low negative correlation was found Pearson $r = -.026$ at $N=40$. Among Anxiety and competency correlation was low negative as Pearson $r = -.195$ at $N=40$. Correlation results between

academic stress and emotional intelligence was low negative as Pearson $r = 0.24$ at $N=40$.

Among rural government schools' boys there is a very low negative correlation between academic stress and sensitivity as Pearson $r = 0.015$ at $N=40$. Similarly, among academic stress and maturity very low negative correlation was found Pearson $r = -0.013$ at $N=40$. Among anxiety and competency correlation was low negative as Pearson $r = -0.05$ at $N=40$. Correlation result between academic stress and emotional intelligence was low negative as Pearson $r = -0.034$ at $N=40$.

Among rural government school's girls there is a low negative correlation between academic stress and sensitivity as Pearson $r = 0.066$ at $N=40$. Similarly, among academic stress and maturity very low negative correlation was found Pearson $r = 0.047$ at $N=40$. Among anxiety and competency correlation was low negative as Pearson $r = 0.097$ at $N=40$. Correlation intelligence was low negative as Pearson $r = -0.097$ at $N=40$.

TABLE-3 SHOWS CORRELATION BETWEEN ACADEMIC STRESS AND EMOTIONAL INTELLIGENCE AMONG URBAN PRIVATE/GOVERNMENT SCHOOL'S BOYS AND GIRLS

School Location	Institutional Sector	Gender	N	Sensitivity	Maturity	Competency	EI Total
Urban	Private	Boys	40	-0.244	-0.045	-0.127	-0.161
Urban	Private	Girls	40	0.18	-0.141	0.059	0.043
Urban	Government	Boys	40	-0.073	-0.149	-0.198	-0.093
Urban	Government	Girls	40	-0.024	0.096	-0.029	0.01

****Significant at .01 level; *Significant at .05 level**

Table-3 shows correlation between academic stress and emotional intelligence and its subscale among urban boys and girls. Among urban government school's boys there is a low positive correlation between academic stress and sensitivity as Pearson $r = -0.244$ at $N=40$ similarly among academic stress and maturity low negative correlation was found Pearson $r = -0.045$ at $N=40$. Among anxiety and competency correlation was very low negative as Pearson $r = -0.127$ at $N=40$. Correlation result between academic stress and emotional intelligence was low negative as Pearson $r = -0.161$ at $N=40$.

Among urban private school girls there is a low positive correlation between academic stress and sensitivity as Pearson $r = 0.18$ at $N=40$. Similarly, among academic stress and maturity low negative correlation was found Pearson $r = -0.141$ at $N=40$. Among anxiety and competency correlation was very low positive as Pearson $r = -0.059$ at $N=40$. Correlation result between academic stress and emotional intelligence was low positive as Pearson $r = -0.043$ to $N=40$.

Among urban government school's boys there is a low negative correlation between academic stress and sensitivity as Pearson $r = -0.073$ at $N=40$. Similarly, among academic stress and maturity low positive correlation was found Pearson $r = 0.149$ at $N=40$. Among anxiety and competency correlation was very low negative as Pearson $r = -0.198$ at $N=40$. Correlation result between academic stress and emotional intelligence was low negative as Pearson $r = -0.093$ at $N=40$.

Among urban government school's girls there is a low negative correlation between academic stress and sensitivity as Pearson $r = -0.024$ at $N=40$. Similarly, among academic stress and maturity low positive correlation was found Pearson $r = 0.096$ at $N=40$. Among anxiety and competency correlation was very low negative as Pearson $r = -0.029$ at $N=40$. Correlation result between academic stress and emotional intelligence was low negative as Pearson $r = -0.01$ at $N=40$.

CONCLUSION:

This study provides an insight about academic stress and emotional intelligence among urban and rural adolescents. Overall, it was found that rural private school boys' shows very low positive correlation whereas girls show low negative correlation which is not significant; rural

government schools also shows low negative correlation among boys and girls which is non-significant. Whereas urban private school boys shows very low negative correlations whereas girls show positive correlation except for emotional maturity which is low negative; urban government school boys also shows very low negative correlation and non-significant except on emotional maturity and among girls it is also very low negative except emotional maturity and total emotional intelligence both non-significant.

REFERENCES

1. Bar-On, R. (1997) The Emotional Quotient Inventory (EQ-i): a test of emotional intelligence. Toronto: Multi-Health Systems.
2. Bar-On, R. (2000) Emotional and social intelligence: insights from the emotional quotient inventory. In R. Bar-On & J.D.A. Parker (eds.): *Handbook of emotional intelligence* (pp. 363-388). San Francisco: Jossey-Bass.
3. Bartwal R. S., & Raj, A. (2015) Academic Stress among School going Adolescents in Relation to their Social Intelligence. *Indian Streams Research Journal*, 5(2), 1-6. <http://doi.org/10.9780/22307850>
4. Goleman, D. (1998) Working with Emotional Intelligence. New York: Bantam Books.
5. Kadaptti M. G. & Vijayalaxmi A. H. M. (2012) Stressors of Academic Stress- A Study on Pre-University Students. *Indian Journal of Scientific Research*. Pp: 171-175.
6. Lee, M. & Larson, R. (2000) The Korean 'Examination Hell' Long Hours of Studying Distress and Depression.

7. Masih P. P & Gulrez N. K. (2006) Age and Gender Differences on Stress. *Recent trends in human stress management*. Pp:97-104.

8. Nandamur P. P & Ch. (2011) Sources of Academic Stress, A Study on Management Students. *Journal of Management and Science*. Pp: 31-42.



YOGA BREATH - SOURCE OF LIFE

DR. REKHA BHARDWAJ

(D.P.E), CH.B.R.G.GOV.T. GIRLS COLLEGE, SRIGANGANAGAR, RAJASTHAN

ABSTRACT:

KEYWORDS:

ABOUT THE BREATH

In order to live and keep the body healthy, we require not only food and water, but also air to breathe. The air we breathe is even more important than eating and drinking. Without food we can survive several weeks. Without water we can survive for a few days. However, without breathing we can survive for just a few minutes. Our life begins and ends with a breath.

Within one breath, three phases can be distinguished [1]:

1. Inhalation
2. Exhalation
3. Pause in breathing

One phase flows into the other. The exhalation should last approximately twice as long as the inhalation. The pause in breathing arises naturally at the end of the exhalation phase and lasts until the impulse to inhale occurs of its own accord. The inhalation forms the active part of the breath. With it comes contraction of the respiratory muscles. The exhalation is the passive part of the breath, the phase of relaxation.

Quiet, regular and deep breathing is decisive for our health. It has a harmonising and calming effect upon body and mind. On the other hand, breathing that is too rapid and shallow has a negative influence upon us, as it can intensify nervousness, stress, tension and pain.

A frequent mistake in breathing is drawing the abdomen in as the chest expands, rather than relaxing the abdomen forwards. Drawing in the abdomen considerably impairs deep breathing. Often fashion and restrictive clothing inhibits this natural movement.

Therefore, all exercises in Yoga, including the breath exercises, should be practiced slowly and without unnecessary tension - without ambition or competition. The breath should be silent and through the nose (Because the air is filtered, moistened and warmed within the nose.). Over a period of time and with practice, one tries to

gradually slow and lengthen the breath. Only through correct breathing can the full effects of the Yoga exercises totally unfold.

With all exercises it is very important that they are practised in a physically and mentally relaxed state. A physically relaxed state is essential, as it is only then that the muscles can stretch in the respective Asana without creating tension. A mentally relaxed state is necessary so that the Asanas can be practiced with full concentration on relaxing and breathing. By exhaling consciously, one can considerably assist in the relaxation of the muscles, as the relaxation of the muscles is connected to the exhalation.

Yoga shows us how body and mind can be influenced by different breathing techniques. Unfortunately our normal method of breathing has moved a long way from the natural and correct way of breathing. A fundamental requirement to restore healthy breathing is practice of the Full Yoga Breath.

THE FULL YOGA-BREATH

To help in learning the Full Yoga Breath three types of breathing are distinguished:

1. Abdominal or Diaphragmatic Breathing

With an inhalation, the diaphragm moves downwards compressing the abdominal organs so that the abdominal wall extends outward. With an exhalation the diaphragm moves upward again and the abdominal wall flattens. In contrast to the inhalation, the exhalation is a passive process.

The abdominal breath forms the basis of breathing as it allows the full use of lung capacity, slows down the breath in a natural way and promotes relaxation.

2. Chest Breathing

With an inhalation, the ribs are lifted so that the chest expands. With an exhalation, the ribs return

to their original position. The air flows into the middle lobes of the lungs. The lungs are not filled as much as in abdominal breathing and the breath is more rapid and shallow.

This breathing occurs automatically in stressful situations, due to nervousness or tension. The unconscious use of this more rapid form of breathing creates a heightened state of tension. To break this unfavourable cycle, slow and deep abdominal breathing is of great assistance.

3. Collarbone (Clavicular) Breathing

With this type of breathing the air flows into the top of the lungs. With an inhalation, the upper part of the chest and collarbones are lifted and with an exhalation, they lower again. The breath is very shallow and rapid.

This type of breathing occurs in situations of extreme stress and panic, or where there is great difficulty in breathing.

In a healthy and natural breath, all three variations occur. Each is united into a flowing wave, which proceeds from the bottom to the top of the lungs with the inhalation, and from the top to the bottom with the exhalation. With the inhalation, the abdomen extends forward and the chest is expanded. With the exhalation the chest and the abdomen return to their original position. When one practises this type of breathing utilising the full lung capacity naturally and without any force, one is practising the **Full Yoga Breath**.

EXERCISES FOR THE THREE TYPES OF BREATHING

Starting Position: Lie on the back

Concentration: on the whole body and breath

Duration: 2-3 minutes

Practice: Lie on the back. Arms are relaxed beside the body and palms face upwards. The legs may be straight, or bent with the soles of the feet on the floor. Close the eyes and relax the body.

Variation A: >Place the hands on the abdomen and observe the movement of the abdomen with each inhalation and exhalation. >Now place the hands on the side of the ribs (fingers point towards the centre of the chest) and observe if and how far the ribs expand and contract beneath the hands. >Next, place the hands just beneath the collarbones and observe the movement of the chest in this area.

Variation B: >Inhale and exhale several times quietly and a little more deeply than normal. Become aware of all the sensations associated with the breath. >Continue to breathe in the same way and, keeping the arms straight, slide them along the floor towards the head. Observe how the sensations associated with the breath change with each position of the arms, and how the volume of the breath increases.

1. Keeping the arms straight move them sideways along the floor to an angle of about 45°. Pause and consciously observe the flow of the breath.
2. Move the arms a further 45° along the floor so that they now stretch out to the side at shoulder height. Pause briefly and once again observe the flow of the breath.
3. Continue the movement of the arms until they rest beside the head on the floor.

Exhaling keep the arms straight and slowly slide them back along the floor until they are beside the body again. Straighten out the legs and remain lying still for a short time, relaxing.

EXERCISE FOR THE FULL YOGA BREATH

Starting Position: Lie on the back

Concentration: on the whole body and breath

Repetitions: 5-10 rounds

Practice: Lie on the back. The legs fall loosely away from each other. The arms lie relaxed beside the body with the palms facing up. Relax the whole body. Close the eyes.

Variation A: >Inhaling keep the arms straight and slowly move them out to the side and upwards along the floor, until they rest beside the head. Coordinate the breath with the movement of the arms, beginning with the abdominal breath, then moving into the chest and finally into the area of the collarbones. >Exhaling slowly return the arms beside the body. The exhalation is carried out in reverse: consciously begin the exhalation in the area of the collarbones, continue through the chest, finally relax the abdomen.

This is one round. Repeat the exercise 5-10 times. Consciously feel the process of breathing so that the breath is as deep and full as possible.

Variation B: >Inhaling keep the arms parallel to each other and raise them in a high arc towards the ceiling. Place the arms on the floor beside the head with palms facing up. >Exhaling return the arms beside the body in the same way. The palms rest on the floor. >Consciously feel and observe all three types of breathing (abdominal, chest and collarbone breathing).

Repeat the exercise 5-10 times. Notice how this breath exercise increases the volume of the breath after only one round.

LEVEL 1

"It takes time for a sprout to grow into a large tree. God-Realisation means that your whole being - every cell of your body, every breath, every corner of your consciousness and every glimmer of an idea - is filled with God's presence."

The first level of the system "Yoga in Daily Life" is known as **Sarva Hita Asanas** ("good for everyone") as these exercises are of benefit to all people and all parts of the body. The Sarva Hita Asanas help us to attain integral wellbeing, as they bring body, mind and soul into balance. Anyone from any age group, regardless of physical

condition, can perform these exercises.

No matter what goal you are striving for with Yoga (preservation of health, inner peace and balance, an increased ability to concentrate, meditation or spiritual realisation) it is best to begin with the physical exercises and breath exercises. These form the basis for any further Yoga studies.

To create a solid base for the more advanced exercises, you should proceed systematically, beginning with the practice of Sarva Hita Asanas. In this way, you will learn the basics - how to perform the Yoga exercises correctly and how to breathe in the correct way. The body becomes flexible, the muscles strengthened and through this the joints become stronger. The exercises are also valuable for anyone who would like to meditate, as the Sarva Hita Asanas calm and balance both the mind and nervous system. They deepen the breath and prepare the body for longer, motionless sitting in meditation posture.

The exercise programme of Sarva Hita Asanas lasts for three months. It is subdivided into six sections and each section is practiced for a period of two weeks. Each programme consists of physical exercises, breathing practices and relaxation exercises. In conjunction with these exercises, the first level of Self-Inquiry Meditation can be practiced.

LEVEL 2

"Your heart is like the ocean into which thousands of rivers pour without overflowing. Your mind is like the clear sky, endless and free, raised high above this world. Your being is like the tree that gives its shade and yields sweet fruit to all. The tree does not cling to its fruit, nor withholds them from those who throw stones. Like your heart, the tree offers its fruit to all, no matter into whose hands they fall."

After completing the first level of "Yoga in Daily Life" you are now well prepared for the classical Asanas of Yoga.

As you have already experienced, there is a great difference between conventional gymnastics and Yoga exercise. The Yoga postures exert a far-reaching effect on all bodily functions, as well as the mind. In this way it can be observed that the Asanas not only influence the body, but also one's entire personality. In a very natural way the Yoga Asanas bring health and balance to both body and mind. One experiences an inner peace and freedom.

In order to achieve rapid and long-lasting results, it is of great importance to establish a regular and systematic practice of Yoga. Initially, regular practice may seem difficult and a little inconvenient, however once the body and mind begin to experience the benefits, they appear to desire the Yoga exercises, as if of their own accord.

There are Asanas that are easier to perform in the morning and others in the evening. There are specific breathing techniques that are a blessing for those who have difficulty waking in the morning. People who suffer from poor sleep, long for the relaxation that Yoga practice brings and so they establish a regular routine. Problems with blood pressure, back pain and other health complaints all benefit

from regular practice. After some time it simply becomes a healthy habit, just like taking a shower - the Yoga practice is something we just do not want to miss.

SEQUENCE OF A YOGA SESSION

- Begin your Yoga session with a relaxation and then practice some dynamic exercises such as stretching the body, rolling the body, twists or simple exercises from the "[Sarva Hita Asanas](#)" to warm the muscles, loosen the joints and stimulate circulation.
- Then continue with the Asanas from the exercise level you are currently practicing in "Yoga in Daily Life". To begin with, practice each Asana three times without holding for a longer period. After practicing this way for a while, begin to extend the practice by holding the posture for a few minutes with normal breathing. Conclude the physical exercises with a short relaxation.
- After the Asana practice, air the room and practice [Pranayama](#). Follow this with a [meditation](#) according to your current level.
- Complete the Yoga session by singing OM three times and the Peace Mantra, **OM ŚĀNTIḤ ŚĀNTIḤ ŚĀNTIḤ**.

LEVEL 3

"There is no heaven and no hell, except in your own heart. Your own thoughts are simultaneously heavenly bliss and the torments of hell."

The previous exercises have increased the flexibility of the spine, improved the body's physical condition and heightened awareness to the importance of relaxation. It has been emphasised that each exercise be practiced slowly, coordinating movement with the breath, pausing motionless in each position and always with full concentration.

As practice continues and progress begins on the path of Yoga, it becomes even more necessary to pay attention to the precise movement of all exercises and maintain concentration throughout the practice of each exercise. The Yoga practices will bring good health and awaken dormant powers within the body, all of which are of great importance in life.

In the Bhagavad Gita (VI/15) it says: "One who through Yoga controls the body and has learned to master the feelings, senses and mind, sheds the chains of desire, fear and confusion and attains peace and supreme bliss."

All this can be achieved through Yoga if the techniques are practiced systematically and regularly, with faith and devotion.

LEVEL 4

"Yoga is the source of spirituality and spirituality is the basis of all religions. Yoga is the way to God."

Now you have reached the fourth level of your Yoga practice and have thus become an advanced Yoga student.

Here so much more attention is required on slow, concentrated practice of the exercises. Remain in each position longer than previously, as this way you will experience the influence of the Asanas upon body and mind even more deeply.

With respect to the level of intensity of this practice, often it seems no progress is being made. Feelings of uncertainty and despondency can be overcome on reflection of the following advice as given by Bhagwan Sri Deep Narayan Mahaprabhuji in his Golden Teachings:

“The success of your actions lies in the strength of your inner conviction and self-discipline. Do not lose courage and never give up.” and **“Whatever you have resolved to do, do it with firm determination. Success will be certain.”**

In the Bhagavad Gita (II/40) it says: “On this path no effort goes in vain; also there is no loss. Even a small step on this path liberates one from great fear.”

Everything, even the smallest endeavour on the Yoga path, brings a multitude of gains. Those who do not give up, who practice regularly and continue with full confidence, will reach their goal.

LEVEL 5

“When you call God from the depths of your heart day and night, He will come to you and take your life in His loving hands.”

Yoga is no longer simply physical training for you, but rather a method to control and overcome inner disturbances and restlessness, such as poor concentration, dissatisfaction, depression, etc.

Sage Patanjali states in his Yoga Sutras that the substance of thought (Chitta) is a product of nature (Prakriti). When the thought process is directed towards an object it takes on the form of that object. This phenomenon is called Chitta Vritti, which can be roughly translated as “mental state”. Since the objects to which the mind is directed vary, the Chitta Vrittis vary as well, and a false identification of our Self (Purusha) with these varied modifications takes place. Through the Yoga practices we can achieve a controlled stilling of the Chitta Vrittis (“Chitta Vritti Nirodhah”) and with this, liberate the Self from the erroneous identification with the changing states of consciousness.

Besides the Asanas and Pranayamas, a further step is now included in the daily practice - deep concentration. This is often mistakenly called meditation however, meditation is much more than concentration. One cannot practice meditation, it arises by itself in the same way that sleep suddenly overcomes us without us being able to distinguish the exact moment we fall asleep.

Concentration is a preliminary practice for meditation, with the goal being to observe and to calm the body, mind and senses. If our ability to concentrate is not strong enough, we either become restless or fall asleep. Both prevent us from going into meditation. That is why in the

practice of concentration we aim to overcome both restlessness and sleep. The techniques that are described in the following levels are certain to develop the ability to concentrate for those who would like to reach a genuine level of meditation.

SOME ADVICE FOR YOUR SUCCESS IN YOGA:

1. Live as a vegetarian.
2. Stay away from drugs. Drugs damage the health of both body and mind, and severely hinder your Yoga development. Avoid the mistake of thinking that your will-power is strong enough that you can decide at any moment to stop taking drugs. It never is.
3. Avoid alcohol and any kind of excess. They are obstacles on your Yoga path, which can ruin all endeavours.

LEVEL 6

“Create the right balance between material and spiritual life and you will possess two strong wings with which your soul can soar towards God.”

Progress is made on the Yoga path by systematic practice of Asanas, Pranayama and concentration. The Yoga path is not always easy. Difficulties and obstacles that arise must be overcome. With experience we learn the importance of keeping our goal in sight and continue to practice unwaveringly, with confidence.

The concentration exercises control the mind and make us more aware of mental restlessness. This restless mind creates inner tension, which prevents us from following a single train of thought consistently to the end. Because of this, the mind often leads us astray.

Yoga calms the mind and develops the power of discrimination. Viveka is that aspect of the intellect (Buddhi), which guides us towards correct understanding and to discern what are the right decisions. One of the most important tasks now, apart from the physical, breathing and concentration exercises, is to train the intellect and use it correctly. Yoga ignites in us the **light of wisdom** so that we gain clarity and are able to become aware of true reality.

LEVEL 7

“The greatest happiness and the greatest gift from God is human life. A fool is he who does not realise this and carelessly wastes this precious gift. He acts like one who throws away a diamond as if it were worthless glass. Don't let your life trickle away like sand slipping through your fingers.”

Once more a new level of Yoga practice is ahead of you and an equally new level in your development.

In daily practice you have gained your own understanding and experience of the effects of Asanas, Pranayama and Meditation upon body, mind and soul. The next step is to consider more deeply the philosophy and spiritual aspects of Yoga. “Where do I come from?” “What is the meaning

and purpose of life?" "What duty must I fulfil in this life?" And finally, "Where will I go after this life?"

Within the practice of "Yoga in Daily Life" the answers to these five vital questions can be found. Ultimately we can free ourselves from the wheel of destiny and attain the final and supreme goal of Yoga - liberation from Karma, death and rebirth.

On the path to this goal, you become free of many health problems, mental worries and fears. Most importantly you can free yourself of those inner qualities that disturb you such as anger, egoism, hatred, attachment, envy and addictions.

Always be conscious that Yoga is an entirely voluntary path - bright and clear like the rays of the sun and free like a bird in the sky. No one should feel pressured. It is completely your own decision to determine what steps you take and when.

Often one is tempted by the restless and changeable nature of the mind to break from the Yoga path and again try something new. This is why you must develop great awareness and analyse your thoughts very carefully. Never allow yourself to be tempted to change out of mere curiosity. The success you gain in Yoga can be likened to the care given to a tender plant - it will only grow and bear fruit under your gentle and loving care. If you repeatedly plant and replant a small seed, it will never gain the opportunity to take root and thrive. In the same way the flower of spirituality will only develop through patience, love and perseverance.

LEVEL 8

"The more wisdom you possess, the more humble becomes your mind. The more understanding you develop, the more helpful become your actions. The more goodness residing in your heart, the more love you feel for everything."

We now come to the final and highest level of Asanas - **Padmasana** (Lotus) and the practice of various postures in Padmasana.

Along with Shirshasana, Padmasana is known as the supreme and "royal" Asana. Why is this posture so important? Padmasana is the only sitting posture in where the spine is completely upright, so that the lungs are entirely free for breathing. Above all, it opens the Chakras along the spine and activates the corresponding nerve centres. As the qualities of each Chakra begin to unfold, the Yoga aspirant is opened to diverse levels of consciousness. This is why Yogis always sit for deep meditation in Padmasana.

The lotus is a symbol full of meaning for the Yogi and the Yoga aspirant. In mythology, the lotus blossom represents beauty, purity and spirituality. Since it always floats upon the surface of water, it also gives us a model of how to live and act in this world. Water is symbolic of Maya (the world) and the lotus blossom is symbolic of man. Humans and the world are strongly interrelated and just as the lotus blossom can only thrive in water, humans and other living beings can only develop and attain realisation in this world. Just as the lotus floats upon the water's surface, untouched by the water, Yogis live in this world inwardly untouched by temptations, pleasures, difficulties and misfortunes. In every respect they are free, even though Maya seeks to lead them astray through the waves of emotion and desire.

To the Yogi, the lotus blossom is a symbol of Divine consciousness and love. Those who meditate on the lotus blossom can realize its perfection within themselves. For those who find the divine lotus within, the search is over.

REFERENCES

NO REFERENCES



SUSTAINABLE DEVELOPMENT IN MULTILEVEL MARKETING (MLM) BUSINESS DURING COVID-19 PANDEMIC

DR.ASHA RATHI

ASSISTANT PROFESSOR, DEPARTMENT OF BUSINESS ADMINISTRATION, FACULTY OF COMMERCE AND MANAGEMENT STUDIES, JAI NARAIN VYAS UNIVERSITY, JODHPUR, RAJASTHAN.

DEEPIKA CHAUHAN

RESEARCH SCHOLAR, DEPARTMENT OF BUSINESS ADMINISTRATION, FACULTY OF COMMERCE AND MANAGEMENT STUDIES, JAI NARAIN VYAS UNIVERSITY, JODHPUR, RAJASTHAN.

ABSTRACT:

Direct selling is a conventional method of marketing. Multilevel marketing (MLM) is a type of direct selling. MLM is a technique for selling products or services to customers directly through personal contacts and recruiting them as members away from retail outlets. They receive commissions or bonuses as a result of the sales made by their recruits. The products or services are sold by direct sellers, who are known as individual representatives of the MLM business. These representatives carry out product demonstrations while selling products.

During the COVID-19 pandemic, this business sector has made a substantial contribution to women's empowerment, self-employment opportunity, skill development, entrepreneurship, and SME development. It transforms all these challenges into opportunities by sharing the values of community and unity. In this paper, we will study the impacts, challenges, and role of this business sector in sustainable development during COVID-19. We will also discuss IDSA, which is an autonomous, self-regulatory body for the direct selling industry working in India. Secondary data such as published research papers, articles, journals, relevant sites, and other sources are used for the study.

KEYWORDS:

DIRECT SELLING, MLM, COVID-19, INDIVIDUAL REPRESENTATIVES, SUSTAINABLE DEVELOPMENT, IDSA.

INTRODUCTION

Multilevel marketing (MLM) is one of the conventional methods of selling products and services through multiple levels and setting up a large network of people in order to grow the business. MLM is also called "network marketing" and "referral marketing." The products or services are sold by direct sellers, who are known as individual representatives of the MLM business. These representatives carry out product demonstrations while selling products. They earn money by selling products and by recruiting people as their downline. People can do this business from their homes, so it becomes a good earning opportunity for people during the difficult situation of COVID-19. Before COVID-19, Indians were afraid of accepting this marketing strategy because of the many scams that run behind it.

IMAGE SOURCE-

<https://www.infotraxsys.com/insights/direct-selling-mlm-network-marketing-or-party-plan-whats-the-real-difference/>

OBJECTIVE

To study impacts of covid-19 on Multilevel Marketing Business.

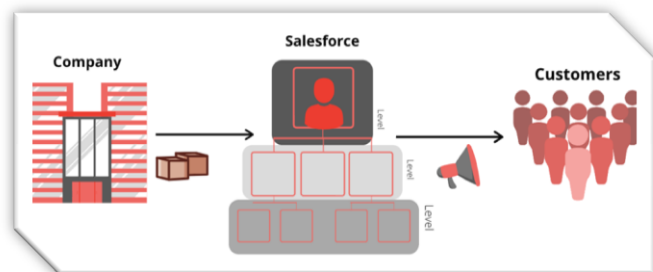
To study key drivers of Multilevel Marketing during covid-19.

RESEARCH METHODOLOGY

Secondary sources like published papers, articles, relevant sites, IDSA survey report etc. are used to meet the objective of study.

MLM DURING THE COVID-19 PANDEMIC

As we all know, the COVID-19 pandemic was a difficult time for all businesses. This epidemic affects every business. The multilevel marketing industry also faces many challenges during this period. There are many challenges facing this industry, but it takes all these challenges as an opportunity and takes relevant steps to grow this business. According to the IDSA annual survey report, growth has been experienced in this business during the COVID-19 pandemic.



Before COVID-19, India was backward in accepting this marketing strategy as compared to other developed nations like the UK, US, etc. because the Indian economy was afraid of the scams that would run behind it. But during the pandemic, economic instability is the big problem for all the nations in the world, which plays a crucial role in thinking about multilevel marketing because this marketing plan has a wide and profitable business platform. Just after the COVID-19 outbreak, the entire MLM network industry adjusted its marketing strategies to improve efficiency and support the medical sector by creating PPE kits, doing vaccine research, producing medicines, etc. This pandemic circumstance helps in expansion of India's network marketing industry very quickly. The position of network marketing or MLM in India at this time appears to be quite positive, ensuring future success in the MLM sector. After this pandemic, people felt the need for a secondary source of income that could help them financially during the unpredictable situation, so they entered the MLM business.

The sector has made a substantial contribution to women's empowerment, self-employment opportunities, skill development, entrepreneurship, and SME development. Even during unprecedented periods of difficulty, such as COVID-19, the direct selling industry's shared values of community and unity have turned these challenges into opportunities.

KEY DRIVERS FOR GROWTH OF DIRECT SELLING INDUSTRY DURING COVID-19

Increased knowledge about health and nutrition products- The wellness category, which saw a growth in demand, contributes almost 55% of the total direct sales turnover in India.

TECHNOLOGY ADOPTION- The adoption of technologies like Zoom, WebEx, and others by direct selling companies considerably expanded their capacity to reach out to new prospects. The entities were also able to increase the frequency and quantity of meetings.

DEVELOP THE CONCEPT OF WORK FROM HOME- The concept of "work from home" has given an opportunity to people where they may have a second source of self-sustainable income.

STRONG DISTRIBUTION SYSTEM- Direct selling companies developed a reliable delivery system that made it possible to send products to customers' homes during the epidemic.

INDIAN DIRECT SELLING ASSOCIATION (IDSA)

The Indian Direct Selling Association is an autonomous self-regulatory body working for the direct selling business in India. It also represents multi-level marketing businesses. IDSA was incorporated in 1996. The association works as an interface between the industry and policy-making bodies of the government, facilitating the cause of direct Selling business in India. IDSA seeks to develop and promote an environment that will support the

growth of the direct selling sector in India through advisory and consultative activities with the government. It also works closely with the government to catalyze changes in the direct selling industry for policy issues, improve efficiency, and bring about the needed credibility, clarity, and confidence in direct selling.



IMAGE SOURCE- <https://idsa.co.in/what-is-idsa>

The IDSA published its annual direct selling industry survey report. Ipsos Strategy3 does the survey on behalf of IDSA for the financial year 2019–20.

KEY POINTS OF IDSA ANNUAL SURVEY REPORT 2019-20

- In 2019–20, the direct selling market in India was estimated to be worth INR 1,67,762 million. The sector increased by almost 28% from INR 1,30,800 million in 2018–19.
- Approximately 80% sales of direct selling industry were made in the fields of wellness and cosmetics and personal care.
- The direct selling business is dominated by women, while men exceed women in terms of the total number of direct sellers.

CONCLUSION

The majority of industries and businesses were in the depression stage during the COVID-19 pandemic. They face numerous difficulties caused by social isolation, and all company operations are frozen. Despite this, MLM enterprises are still growing and are one of the business sectors that are least affected by the epidemic era. Some multi-level marketing distributors are attempting to attract new investors by making bold claims about money and the opportunity to work from home—obviously suitable for those who are currently jobless. Apart from the concept of "work from home", technology adoption, nutrition and wellness products, and a strong distribution system played important roles in MLM growth during COVID-19.

REFERENCES

1. <https://idsa.co.in/what-is-idsa>

2.file:///C:/Users/Admin/Desktop/IDSA%20REPORT%202019-20.pdf

3.<https://www.infotraxsys.com/insights/direct-selling-mlm-network-marketing-or-party-plan-what-s-the-real-difference/>

4.<https://time.com/5864712/multilevel-marketin>

[g-schemes-coronavirus/](#)

5.<https://www.caclubindia.com/articles/covid-19-impact-in-mlm-business-43778.asp>



MODES OF DEHUMANIZATION IN EXISTENTIAL POVERTY

VIPIN BEHARI GOYAL

RESEARCH SCHOLAR, DEPARTMENT OF ENGLISH, JNV UNIVERSITY, JODHPUR (RAJ).

DR. SATISH KUMAR HARIT

SUPERVISOR, PROFESSOR & HEAD OF DEPARTMENT, DEPTT. OF ENGLISH JNV UNIVERSITY, JODHPUR.

ABSTRACT:

KEYWORDS:

"Poverty is the worst form of violence." Gandhi said. It is a shock to learn that biggest global invisible humanitarian crisis is poverty. Poverty is like punishment for a crime you did not commit. Nelson Mandela while delivering a speech during Make Poverty History campaign said, while poverty persists, there is no true freedom. Need for the re-distribution of wealth inevitable now. The disparity between the rich and the poor is dangerous to the country. He believed that the wealthy should have enough to meet their needs but that they should take upon themselves to give their excesses away voluntarily. If one has wealth, he or she should use the excess wealth for service. The concept of Existential poverty deals with both, material poverty as well as dehumanization and protection of fundamental human right, the right to dignity and decent life. Both these factors have played significant role in establishing the social responsibility of literature across eras like enlightenment, renaissance, romanticism, realism or modernism to portray where society is headed to and how worse the consequences could be. Nietzsche suggested to reduce all social, moral and political values to zero or 'nothingness' and redefine them.

Usually low socioeconomic status people are seen as money wasters who thrive on the welfare schemes run by the government by taxpayer's money. Consequently, this attitude of elite is dehumanizing or animalizing a vast chunk of human population. The elite of the society think that people of low socioeconomic status are incompetent, imprudent, less educated and prone to habits of wasteful expenditure, improper consumption and irrational life style and they support government policies to earn more idle income. We can never uplift the poor by distributing free commodities. It makes people parasitic and they lose their dignity and self-respect. Literature is more about emotions and less about logic. Books about poverty have therapeutic and cathartic utility for elite of the society.

The segments of the society who are less privileged economically or are physically or mentally challenged; women who due to numerous social evils are in vulnerable situation are always cast out of the society mainstream and suffer isolation or marginalization. The upper caste people had been exploiting lower caste since centuries. They are not only materially deprived but also their fundamental right to live life with dignity is also snatched. Arundhati Roy has observed that it is as important for Dalits to tell their stories as it has been for colonized peoples to write their own histories. Between desperate people and hope stand the God. Majority of people believe in the Theory of Karma; what goes around comes around. By blaming destiny and their past deeds, people shirk their responsibility for inaction towards social injustice. Endurance of suffering is revered as penance. Reports and surveys are institutionalised and may cater to the need of authorities. They develop a narrative to either raise more funds or to show their achievement and commitment to the cause. We remain ignorant of a vast community who they are, what they need and what they deserve. We forget to look at them as humans since they have become numbers for us.

Humanism is the system of thought in which human interest, values and dignity are held dominant. It is attitude of man towards mankind, to see man in totality of his existence. Man deserves to exercise his fundamental rights of freedom, dignity and self-respect. The concentration camps of Nazi in Germany and Gulag in Russia, Ghetto of Bulgaria and detention center of Austria, India and Bangla Desh for unlawful immigrants are examples of existential dehumanisation. Insufficient food, hard labor, lack of medicines, inhuman derogatory use of language, fear, anxiety, malnutrition, pandemics are the hallmarks of these human conglomeration inhabited in most inhuman conditions. Despite backbreaking labor, dehumanizing treatment, and vigilant officials made

reading and writing spiritually and logistically difficult, life in the camps was full of creativity in the form of oral and written literature, painters, sculptures and thinkers.

On a broader spectrum, all alternative life styles have silent nod of society despite superficial resistance to it. The acceptance of one value is not condemnation of other. In his racist play *The Respectful Prostitute* Sartre draws the principles of existentialism like freedom and responsibility in relation to racism which causes dehumanization of a breed which is considered as white man's burden. Domestic violence is accepted norm of marital life in lower segment of the society. Women of this segment have a notion that physical abuse is part of life and sometime they exercise their right to hit back. Men may develop hostile attitudes toward women and abuse them as a way to hide feelings of personal weakness and uncertainty and, ultimately, to displace their state of stressful discontent, impotency and cowardice.

Impersonality and dehumanization are the benchmarks of beurocracy. The insensitivity of a public servant is appreciated by superiors in hierarchical beurocracy. Their job is to execute policy-makers will and intent at the grass root level. They spend time in finding lacuna in the policy by which certain right can be denied to a beneficiary. A tormented beneficiary does not get relief by appealing to the higher authorities since they have implied consent to work within the framework of rules. This has resulted in beurocracy becoming byword for red tape, lack of initiative and innovation and poor public service delivery. They are the biggest hurdle in the growth and development of any country especially third world countries, which are worst hit by poverty, and where most of the exchequer is spent on policies made for upliftment of downtrodden sector of the society. Though decision without emotional influence would be better, more effective and importantly unbiased in character as personal interests and human fallacies have created instability seen in the feudal system of society.

Real essence of the administration and governance is to provide serve people and implement the public policy after its formulation impartially and without bias. Change in political system makes beurocracy vulnerable and they are not accountable for not taking an emotional intelligent decision. The physiological needs of food, the psychological need of security and emotional need of love and care is common in all animals including humans. What distinguishes man from animal is dignity. The human beings are unique in their free will and decision-making based on rational and free moral choice. That is why poverty which limits free will and freedom of choices is seen as a factor which forces human to live an animal life.

Do all human beings have an equal worth just by being human, even if they have no source to acknowledge that such worth does exists, and that no other human being under any circumstances is entitled to deprive him of that worth. Dignity is a choice and no one can deprive us of it as long as we do not give up our self-respect. Absolute poverty is a abyss created by men in power by compelling

majority of people to live a life characterized by homelessness, insufficient food, malnutrition, illiteracy, disease, high infant mortality and low life expectancy. Normally loss of dignity is caused by others but in case of poverty an individual is not the cause but it is side- effect of the act of many. The dignity is a kind of inherent dignity that can be violated. Dignity claims self-respect which in turn claims for right to choose.

Human beings all over the world are discarded, humiliated, marginalized and dehumanized. They are subjected to slavery and torture in the name of colonization. The oppressed suffer poverty and starvation without any grudge. Even in modern world direct armed conflict causing war and indirect armed conflict as terrorist activities are frequent. Unequal law of corporal and capital punishment, racism and genocide, arbitrary detention and enforced disappearance, rape and human trafficking is caused by absolute powerlessness. The victims certainly feel there is gross human rights violations and they have lost their dignity and humanity.

Beurocracy is a impersonal organization with well defined hierarchical structure and clear rules, regulations, and lines of authority, which govern it. This is where emotional intelligence training can provide panacea, but any discretion allowed in the name of emotional intelligence will provide a leverage to pressure groups to operate and beurocrates are likely to succumb for gratification of mutual vested interest. However if the policies are framed not as a matter of routine, but conditioned by practical needs and dynamics of human existence, it may provide wider and deeper application of policies.

Mulk Raj Anand's *Coolie*, is a heart-wrenching narration of human suffering. Munoo represents innumerable children who are compelled to perform menial task just for a square meal and a shade. The childhood is most beautiful part of human life but they lost it in want of love and care. The picaresque character Munoo earns our sympathy for his consistent misfortune but Anand's object is to pinch us to awaken a feeling of social responsibility towards less fortunate sector of the society. There are many writers in Indian Writing in English who have dealt with the themes of untouchability and other social evils, which result into marginalization. The thrust is on the evolution of the society in which the haves and have not both can enjoy happily the bliss of human life. In the novel *Coolie*, Anand tries to depict the social reality of the conflict between the oppressor and the oppressed. The novel shows the unbridgeable gap between the exploiters and the exploited, the rulers and the ruled. True art is an ally in struggle to achieve the humanistic ideal by defeating the forces, which create hurdle such as capitalism, colonization, fascism, racism, feudalism and communalism. The author who fights for cause of poors is a missionary who wants to bring a social change by demanding love and justice for all by making an appeal to our conscience. Gandhi narrated his trusteeship idea in following words, "The whole idea of possessing wealth only to guard it from

being misused and to distribute it equitably aims at protecting human dignity" (*Gandhi Marg*). The trusteeship idea is combination of economics and morals. If rich chooses to spend frivolously on themselves rather than alleviating the poor 'who stands last in the queue' (*antyoday*), it would be an act of violence. Some authors are not so explicit while exploring the extent of dehumanization.

Franz Kafka in *The Metamorphosis* narrated the story of a destitute that faces extreme dehumanization and feels that he is transformed into an insect and starts behaving like one. Gregor Samsa the main character faces eventual death from his inability to confront the world and defend his own existence, the stripping of his humanity, and the rapid deterioration of his body. Gregor is isolated in his room which not accessible to other family members. When he tries to speak he makes some garbled, distorted, chirping sound. Thus, he has lost the communication with the rest of the world. This lack of meaningful relationship causes existential angst in Gregor. The alienation caused in such circumstances results into self-condemnation. A person is confronted with 'another self' whose existence he is ashamed of. Satre considers that shame is an acknowledgment that others exist and has the capability to look at an individual and judge. The feeling of shame leads to alienation or the distancing of a person from themselves or others or vice versa. We can draw the conclusion that to human beings are essentially existential, they need have meaningful relationship, effective communication and dignity by earning respect in the eyes of society as well as their own. Here setting of the novel plays a role of character.

The Marxist view that woman perform domestic tasks such as cleaning, cooking and child bearing are proletariat and men perform tasks of hunting and fishing are bourgeois class, is condemned by most of the feminist. The economic policies, be it is capitalist, communist or socialist does not affect the status of women, by and large she remains at the bottom strata of the society.

We cannot remain neutral to injustice and oppression; by being silent, we support the oppressor. We must take a stand and raise voice against tormentor in support of victim. Tomorrow we may be the victim. Fight until the justice is delivered. Amen.

REFERENCES

1. Beauvoir, Simone de. *The Second Sex*. Vintage, 2011.
2. Benatar, David. *The Human Predicament: A Candid Guide to Life's Biggest Questions*. Oxford University Press, 2017.

3. Bose, Nirmal Kumar. *Selections from Gandhi*. Ahmedabad: Navajivan Publishing House, 1948.
4. Chaney, M. P., & Bialock, A. C. Boredom. –Proneness, Social Connectedness, and Sexual Addiction among Men Who Have Sex with Male Internet Users||, *Journal of Addictions & Offender Counseling*, 26, 2006.
5. Christine Daigle, *Existential Thinkers and Ethics* McGill-Queen's press, 2006,
6. Christophe, Marc-A. –Sex, Racism, and Philosophy in Jean-Paul Sartre's „ The Respectful Prostitute". *CLA Journal*, vol. 24, no. 1, 1980.
7. Cowan G, Mills RD. –Personal Inadequacy and Intimacy Predictors of Men's Hostility toward Women||, *Sex Roles: A Journal of Research*. 67–78. 2004.
<https://doi.org/10.1023/B:SERS.0000032310.16273.da>
8. Cole, William Graham. *The Restless Quest of Modern Man*. Oxford UP, 1966.
9. Deshpande, Shashi. *The Long Silence*. Penguin India, 2008.
10. Frankl, Victor E. *Man's Search for Meaning*. Touchstone Book by Simone and Schuster, Gandhi, M.K., *Constructive Programme: Its Meaning and Place*. Prabhat Publication, 2021.
11. Hamsun, Kunt. *Hunger*. Canongate, 1996.
12. Kaufmann Paulus, et al. *Humiliation, Degradation, Dehumanisation: Human Dignity Violated*. Springer, 2010.
13. Kesavulu, Y. *Gandhian Trusteeship as an Instrument of Human Dignity*. *Gandhi Marg*, Vol. 25, Number 4, Jan - March 2004.
14. Mahfouz, Naguib. *The Thief and the Dogs*. Anchor; Reissue edition, 1989.
15. Mandela, Nelson. *Make Poverty History*. Make Poverty History Campaign, 03 February 2005, Trafalgar Square London United Kingdom, speech

16. Marcel, Gabriel. Being and Having. Read Books, 2008.

17. Martin, Thomas. Oppression and the Human Condition: An Introduction to Sartrean Existentialism. Lanham: Rowman and Littlefield, 2002.

18. Roberts, Michele. The fallen woman: prostitution in literature. The Gurdian, 14 Apr, 2017.

19. Roy, Arundhati. The Doctor and the Saint. The

Hindu. Literary Review. May19, 2016.

20. Solzhenitsyn, Aleksandr. The Gulag Archipelago Vintage Publishing, 2018.

21. Stone, Dan. Concentration Camps: A Very Short Introduction. Oxford University Press.



PERFORMANCE ANALYSIS OF GRID-CONNECTED WIND FARM

SANTOSH KUMARI MEENA

ASSISTANT PROFESSOR, DEPARTMENT OF ELECTRICAL ENGINEERING, M.B.M. UNIVERSITY, JODHPUR, 342001

KHAMMA KANWAR

ASSISTANT PROFESSOR, DEPARTMENT OF ELECTRICAL ENGINEERING, M.B.M. UNIVERSITY, JODHPUR, 342001

ABSTRACT:

The worldwide consumption of electrical energy is increasing and there is gradually increased demand for power generation. The wind turbine power generation unit is more economical and competitive than all the existing environmentally clean and safe renewable energy sources. However, wind electrical generation systems provide intermittent energy depending upon the wind regimes in the region. Therefore, any transient disturbance can result in changes in the voltage, current, and power at various points of the integrated system. Various simulation results are obtained through transient analysis using a generic wind turbine generation model. In this wind farm, a doubly fed induction generator (DFIG) model is used. For showing the simulation of DFIG, *MATLAB/SIMULINK* software is used.

KEYWORDS:

DOUBLY FED INDUCTION GENERATOR (DFIG), POINT OF COMMON COUPLING (PCC), WIND ENERGY CONVERSION SYSTEM (WECS).

1. INTRODUCTION

The worldwide consumption of electrical energy is increasing and there is gradually increased demand on power generation. Thus in accumulation to conventional power generation sources a various number of renewable energy sources are being connected to the power system. Wind is most desirable source surrounded by all other renewable energy because it is non-polluting, available in abundance and reasonable cost for both small and large order systems. The most satisfying resource this whole need for wind in a natural source energy source. The wind turbine power generation unit is more economical and competitive than all the existing environmentally clean and safe renewable energy sources in the world. In wind turbine generation technology variable speed double-fed induction and constant-speed squirrel-cage induction generators are used. However, wind electrical generation systems provide intermittent energy depending upon the wind regimes in the region. Therefore, any transient disturbance can result in changes in the voltage, current and power at various points of the integrated system. A study of such effects is useful to the power system energy planner.

1.1 WIND ENERGY CONVERSION SYSTEM

Wind energy conversion system (WECS) is applied to change wind energy into useful mechanical energy. The terms "wind power" or "wind energy" relate the operation by which the wind is used for develop electric energy or mechanical energy. In rural and remote areas, wind turbine system is most generally installed. These areas generally have weak grids and which generally have under

voltage conditions and voltage unbalances. The torque generated by the electrical machine (induction generator) is fluting in nature when the stator phase voltage supplied by the grid is unbalanced in nature. The developed torque is pulsations in nature with double the grid frequency and resulted in acoustic noise at low levels and at high levels and it can damage the blade assembly, gearbox or rotor shaft. The induction generator will take the unbalanced current when the grid is unbalanced. These unbalanced current causes over current problems as well as increase the grid voltage unbalance. The most important components of a typical WECS are wind turbine, interconnection apparatus, turbine generator and control systems. The wind turbine is used as the prime-mover to supply mechanical power to an electrical generator (DFIG). The WECS has basically consists of two considerable components:

- (i) Turbine system and associated control box (including the gearbox)
- (ii) Electrical system consists the rotor converter system and the associated control

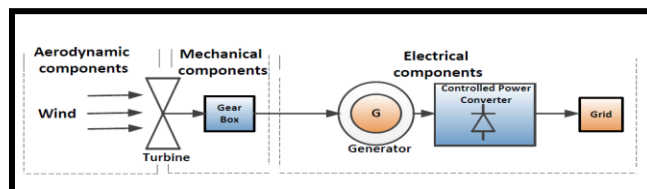


FIG. 1 BLOCK DIAGRAM OF THE COMPONENTS OF WECS CONNECTED TO THE GRID

2. POWER GRID MODEL

The single line diagram of the test system used for the *MATLAB simulation* is shown in figure 3. *MATLAB/SIMULINK* is used for the analysis. The grid model [American system] consists of a 120kV, 60Hz grid supply point, feeding the supply to 25 kV distribution system through a step down transformer of 120-25kV, 47MVA, another 25kV-575V, 12MVA step-down transformer connected between grid and bus B4 to again step down the voltage at the level 575 volt.

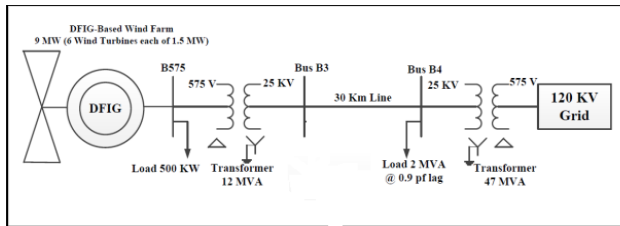


FIG.3 SINGLE LINE DIAGRAM OF THE TEST SYSTEM

There are two loads in the system one load is (a) 2MVA and 0.9 p.f. (lag) at 30 km from the transmission line, and (b) a static load of 500-kW at 575V bus. The 25kV, 30-kmlong line is represented as nominal- Π line. A DFIG-based wind farm consists of six DFIG-based wind turbines connected at 575V bus, each with 1.5MW (for a total of 9MW) which have a protection system monitoring current, voltage, speed and

SimPower System toolbox used for the simulation of wind farm of 9 MW wind farm. Six DFIG-based wind turbines are connected together and represented by a single equivalent wind turbine mode of 9 MW. Each individual DFIG wind turbine system has a capacity of 1.5MW, which results a total of 9MW DFIG-based Wind farm. The simulation analysis is discussed using *MATLAB/SIMULINK* platform for various transient disturbance cases.

grid, a grounding Transformer is applied with capacity of 47MVA and leakage impedance ($X_o=4$).

3. RESULTS AND DISCUSSION

4.1 SYSTEM RESPONSE WITH CHANGE IN WIND SPEED

DFIG-based wind farm was initially run under normal operation to calculate the steady state output conditions of the system. Wind speed given as input to a step block that shows the sudden variation in wind speed. At starting the wind speed fixed at 8m/s and at a time of $t=5s$ the wind speed is suddenly increased to 14m/s through a step signal. The control mode is fixed at voltage regulation mode with the help of control block of the DFIG-linked wind farm. In this mode reference voltage is set 1 p.u. on the basis of generator rating which 9 MVA and 575volt at the point of common coupling (PCC)at bus B-575. At time $t = 5s$, the generated active power begins increase gradually with the turbine speed and Approximately 18sec and also reach to its maximum power generation capacity of 9 MW. Within same time

the speed of turbine is rise from 0.8 to 1.2 p.u. of the synchronous speed. At PCC (Bus B575 in this model) voltage should be maintain at 1 p.u. so that it is necessary that reactive power should be under controlled. The equivalent DC link voltage should be approximately 1200 volt and increase pitch angle from 0 to 0.78 deg to restrict the mechanical power. At rated power, the wind turbine absorbs 0.682 Mvar reactive power ($Q=-0.68$ Mvar) to maintain the voltage 1 p.u. equivalent to reference voltage

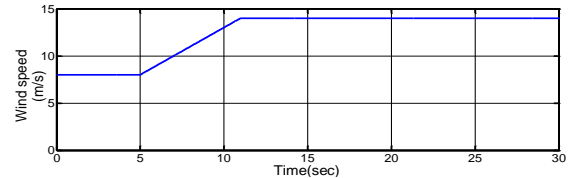


FIG. 4: WIND SPEED PROFILE

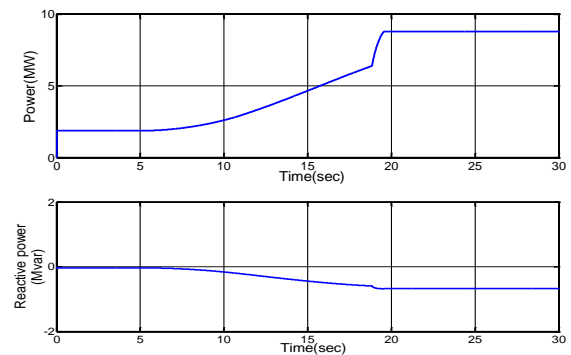


FIG. 5: DFIG GENERATED ACTIVE AND REACTIVE POWER

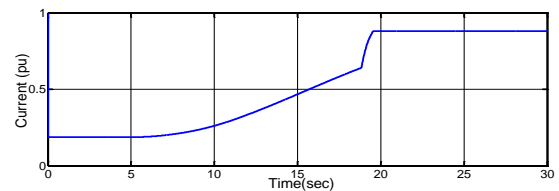


FIG.6: CURRENT AT PCC (BUS B575)

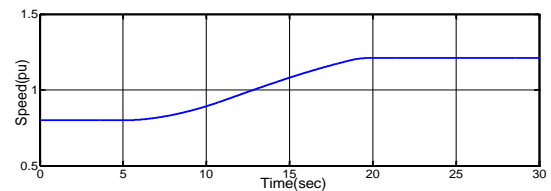


FIG. 7: TURBINE SPEED AT PCC (BUS 575)

4. CONCLUSION

On the basis of Simulation results it can be concluded that the dynamic behavior of DFIG turbine varies with the variation in the base wind speed. Fluctuations in the wind speed will produce a prominent influence on the stability of the system.

REFERENCES

1. Tarek Masaud, Keun Lee, P.K Sen, and Keith Malmedal, "Study of the Implementation of STATCOM on DFIG-Based Wind Farm Connected to a Power System", IEEE Conference, PEDES2010, New Delhi, India, pp. 1-6. Dec 20-23. 2010

2. Wei Qiao, Ganesh Kumar Venayagamoorthy, and Ronald G. Harley, "Real-time implementation of a STATCOM on a wind farm equipped with doubly fed induction generators," IEEE Trans. Industry App., vol. 45, no. 1, pp. 98-107, Feb. 2009

3. Stephan Engelhardt, Istvan Erlich, Christian Feltes, Jorg Kretschmann, and Fekadu Shewarega "Reactive Power Capability of Wind Turbines Based on Doubly Fed Induction Generators," *IEEE Transactions on Energy Conversion*, vol. 26, no. 1, pp. 364-372, March. 2011.

4. K E Okedu, S M Muyeen, Rion Takahashi and Junji Tamura "Participation of FACTS in stabilizing DFIG with crowbar during grid fault based on grid codes," IEEE Conference and Exhibition (GCC), Dubai, UAE, pp. 365-368, February, 19-22. 2011

5. Mehrdad Fazli, Ali Reza Shafighi, Ali Fazli, and Heidar Ali Shayanfar, "Effects of STATCOM on Wind Turbines Equipped with DFIGs During Grid Faults," World Non-Grid-Connected Wind Power and Energy Conference (WNWEC), Nanjing, China, 5-7 Nov. 2010.

6. A. P. Jayam, and B. H. Chowdhury, "Improving the Dynamic Performance of Wind Farms with STATCOM," IEEE Power System Conference and Exposition, Seattle, USA, March, 15-18. 2009.

7. Wei Qiao; Harley, R.G "Improved Control of DFIG Wind Turbines for Operation with Unbalanced Network Voltages" Industry Applications Society Annual Meeting, 2008. IAS '08. IEEE 5-9 Oct. 2008 Page(s):1 - 7

8. G. M. Joselin Herbert, S. Iniyan, E. Sreevalsa, and S. Rajapandian, "A review of wind energy technologies," *Renewable and Sustainable Energy Reviews*, vol. 11, pp. 1117-1145, 2007

9. Eduard Muljadi, C. P. Butterfield, Brian Parsons, and Abraham Ellis, "Effect of Variable Speed Wind Turbine Generator on Stability of a Weak Grid," *IEEE Transactions on Energy Conversion*, vol. 22, no. 1, pp. 29-36, March. 2007

10. Ned Mohan, Ted K. A. Brekken "Control of a Doubly Fed Induction Wind Generator Under Unbalanced Grid Voltage Conditions" *IEEE Transaction Energy conversion*, vol.no22. 1, march 2007 page 129-135.

11. E. Muljadi, C. Butterfield, B. Parsons, and A. Ellis, "Effect of variable speed wind turbine generator on stability of a weak grid," *IEEE Transactions on Energy Conversion*, vol. 22, no. 1, pp. 29-36, 2007.

12. Y. Zhou, P. Bauer "Control of DFIG under Unsymmetrical Voltage dips" *Power Electronics Specialists Conference, 2007.IEEE 17-21 June 2007* Page(s):933 - 938.

13. Jeong-Ik Jang, Young-Sin Kim, and Dong-Choon Lee, "Active and Reactive Power Control of DFIG for Wind Energy Conversion under Unbalanced Grid Voltage," *CES/IEEE 5th International Power Electronics and Motion Control Conference (IPEMC), Shanghai, China*, vol. 3, pp. 1-5, Aug. 2006



WIDE AREA MONITORING USING OPTIMIZED PHASOR MEASUREMENT UNITS

NARENDRA KUMAR

RESEARCH SCHOLAR, DEPARTMENT OF ELECTRICAL ENGINEERING M.B.M. UNIVERSITY, JODHPUR, 342001

SANTOSH KUMARI MEENA

ASSISTANT PROFESSOR, DEPARTMENT OF ELECTRICAL ENGINEERING M.B.M. UNIVERSITY, JODHPUR, 342001

ABSTRACT:

The A power system is a complex dynamic system made up of interconnected power equipment. It mainly consists of generation, transmission, and distribution units. In the current modern era where almost everything has been modernized for a more efficient, better reliability, and independent monitoring, traditional power grids are also in the transitional process to become a modernized power grid, or widely known as the smart grid. The vision for the smart grid is to monitor and manage the power grid as efficiently as possible while providing better reliability and stability. A phasor measurement unit (PMU) sends time-synchronized data to a phasor data concentrator (PDC), which can provide a control signal to substation devices. Phasor Measurement Unit (PMU) based Wide Area Measurement System (WAMS) can measure power system phasors synchronously and accurately. With the advent of wide-area measurement systems (WAMS), real-time calculations on transmission network condition is possible. One of the advanced technologies used is phasor measurement unit (PMU). PMU is a measurement device that can measure bus voltage phasor at the bus it is installed and the branch current phasor that is adjacent to it, hence, the name. PMU is also equipped with Global Positioning System (GPS), thus, the measurement data provided by the PMU can be calculated real-time due to time-stamping and synchronization. It aligns with smart grid visions to have a better monitoring of the power grid and more reliable. Furthermore, the cost of the PMU itself is readily expensive although the price is expected to be decreased when there are more demands in future placement of PMUs in a power system.

KEYWORDS:

PHASOR MEASUREMENT UNIT (PMU), GLOBAL POSITIONING SYSTEM (GPS), WIDE AREA MONITORING SYSTEMS (WAMS)

1. INTRODUCTION

A power system is a complex dynamic system made up of interconnected power equipment. It mainly consists of generation, transmission, and distribution units. Generation and load are often located far apart and are interconnected through a transmission network maintaining the power demand and supply at equilibrium. An electric power system is therefore a network of electrical components designed to supply reliable, reasonably priced, and quality energy to consumers. The generation equipment generates electrical energy from other forms of energy, such as coal, hydro, nuclear, or fossil fuel, which are interconnected through networks of transmission lines (power grid). The transmission equipment transmits the bulk of the generated energy from one location to another at higher voltage levels. The distribution network finally distributes the energy to consumers at lower voltage levels. electrical grids are being operated closer to their stability limits because of ever expanding power demands, aging infrastructure, complex power transfers among regions, and challenging renewable integration. All these trends present an important challenge to the reliability and stability of the electrical grid and under such complexities, carrying out monitoring, protection on real time basis and responding to contingencies are

critical for maintaining reliability and stability of the grid. SCADA/EMS systems were widely used as situational awareness technology however they provide only the steady state view of dynamically changing power system. Wide area measurement systems (WAMS) have come forward as a prominent technology option to improve the visibility and situational awareness in both today's and the future electrical grids. Synchrophasor technology is at the heart of WAMS system that has enabled state measurement in WAMS compared to state estimation in conventional SCADA systems. WAMS measurements are more accurate and faster compared to their SCADA counterparts. The faster and more accurate synchrophasor measurements enable accurate and faster analysis of current grid situation almost in real time which in turn provides operators with options to carry out preventive measures and time to act through early prediction of dangerous events. WAMS thus addresses not only the immediate reliability concerns but also operational issues by conducting real-time dynamic analysis, identifying and calculating security margins and indices, facilitating early detection and monitoring of system security, predicting emergency states and initiating restorative actions to avoid instability. In the current modern era where almost everything has been

modernized for a more efficient, better reliability, and independent monitoring, traditional power grids are also in the transitional process to become a modernized power grid, or widely known as the smart grid. The vision for the smart grid is to monitor and manage the power grid as efficiently as possible while providing better reliability and stability. It is a welcome consideration to replace an ageing infrastructure with a smart grid that uses advanced technologies to achieve this vision. One of the advanced technologies used is phasor measurement unit (PMU). PMU is a measurement device that can measure bus voltage phasor at the bus it is installed and the branch current phasor that is adjacent to it, hence, the name. PMU is also equipped with Global Positioning System (GPS), thus, the measurement data provided by the PMU can be calculated real-time due to time-stamping and synchronization. This knowledge is vital to electric utilities especially to operator engineers where it allows them to identify, anticipate, and correct problems in case when irregular system conditions occur. It aligns with smart grid visions to have a better monitoring of the power grid and more reliable. However, the implementation of PMU has been progressing very slowly due to substantial investment needed for the placement sites. The PMU placement sites need to have a communication facility for the PMU to operate and the limited number of placement sites that have it hinders its implementation. Furthermore, the cost of the PMU itself is readily expensive although the price is expected to be decreased when there are more demands in future. Research conducted in recent years have shown that by utilizing the PMU attributes and the use of the Kirchoff's current law (KCL) and Ohm's law, the number of PMUs required to achieve full observability of a power system can be reduced if the PMUs are strategically placed in a power system. Many optimization methods have been used in recent years to determine the strategic placement of PMUs in a power system such as integer linear programming (ILP), simulated annealing (SA), exhaustive search (ES), genetic algorithm (GA), differential evolution (DE), and also binary particle swarm optimization (BPSO). Among these optimization methods, the ILP is the most dominant method used in solving this problem.

With the advent of wide-area measurement systems (WAMS), real-time calculations on transmission network condition is possible. A phasor measurement unit (PMU) sends time-synchronized data to a phasor data concentrator (PDC), which can provide a control signal to substation devices. Phasor Measurement Unit (PMU) based Wide Area Measurement System (WAMS) can measure power system phasors synchronously and accurately. The main advantage of PMU over conventional SCADA measurement system is that PMU can accurately measure phase angles of power system phasors while conventional instruments cannot measure phase angles directly. Secure operation of power systems requires close monitoring of the system operating conditions. The measurements received from numerous substations are used in control

centers to provide an estimate for all metered and un-metered electrical quantities and network parameters of the power system, detect and filter out measurement and topology errors. Until recently, the available measurements were provided by SCADA, including active and reactive power flows and injections and bus voltage magnitudes. The utilization of global positioning system (GPS), in addition to sampled data processing techniques, for computer relaying applications, has led to the development of PMUs. Phasor measurement units are monitoring devices that provide extremely accurate positive sequence time tagged measurements. A PMU installed at a bus can make direct synchronized measurements of the voltage phasor of the installed bus and the current phasors of some or all the branches incident to the bus, assuming that the PMU has sufficient number of channels. With the increasing use of PMUs in recent years, improved monitoring, protection, and control of power networks can be achieved. The intended PMU applications, the relatively high cost of PMUs, as well as the communication facilities cost, which may be higher than that of the PMUs, make the optimal PMU placement problem an important challenge.

1.1 WIDE AREA MONITORING SYSTEMS

Wide Area Monitoring Systems (WAMS) are essentially based on data acquisition technology of phasor measurements, in order to monitor the transmission system conditions over large areas, in view of detecting and further counteracting grid instabilities. Today, a WAMS may be utilized as a stand-alone infrastructure that set off the traditional SCADA system. WAMS thus addresses not only the immediate reliability concerns but also operational issues by conducting real-time dynamic analysis, identifying and calculating security margins and indices, facilitating early detection and monitoring of system security, predicting emergency states and initiating restorative actions to avoid instability. It is also useful in post-mortem analysis of disturbances in power grid

The WAMS consists following major equipment.

- Phasor Measurement Units
- Fast communication channels like Fiber-Optic.
- Phasor data concentrator (PDC).
- Global positioning system (GPS)

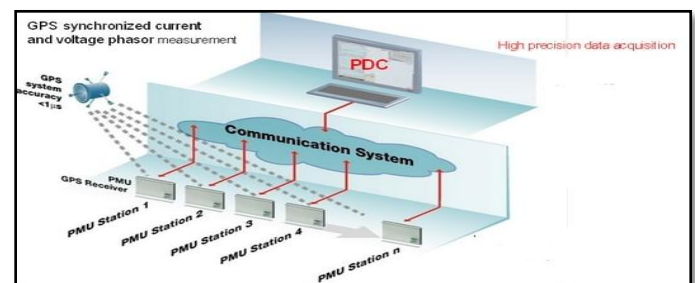


FIGURE: 1 WIDE AREA MONITORING SYSTEMS ARCHITECTURE

Figure 1 shows the typical architecture of wide area

measurement system. WAMS has sensors, communication (wired and wireless), aggregators, storage and associated software tools. The Phasor Measurement Unit (PMU) acts as the sensor in WAMS and is synchronized using a global positioning system (GPS) clock to provide time-synchronized voltage and current phasors, as well as frequency measurements with synchronization accuracy better than microseconds.

PMUs are capable of collecting the samples at the rate of 10 to 60 samples per second. Synchronized measurements (data) obtained from the PMUs are sent through communication networks which are then received and concentrated at a decision and control support system called as Phasor Data Concentrators (PDC).

The PDC determines appropriate preventive, corrective and protective measures. The decisions determined by the support system will then help operators at control centers to take smarter operator control actions. These actions are translated into feedback signals that are sent through communication networks to exploit the controllability and protection resources of the power system. PMU and PDC are thus backbones of any WAMS system. The synchrophasor (angle and magnitude) technology at the heart of WAMS system has enabled state measurement in WAMS as against the state estimation in SCADA systems. The faster and more accurate synchrophasor measurements enable accurate and faster analysis of grid situation almost in real time which in turn provides operators with options to carry out preventive measures and time to act through early prediction of dangerous events.

The PMUs are located at a different substation and give measurements of positive sequence time synchronized current, voltage, the rate of change of frequency, and frequency. Foremost, the measurement information is stacked away in local data storage equipment and then it is used from outside positions for analysis or diagnostic uses. The local memory space is without doubt limited, and the data storage for any event of the power system should be flagged for stable storage, hence it has prevented the overwriting problem at the local store.

Moreover, once the data are measured, it is used for the real-time applications at the local level and the next level PDC also. The PDCs are located at the next level of the hierarchy.

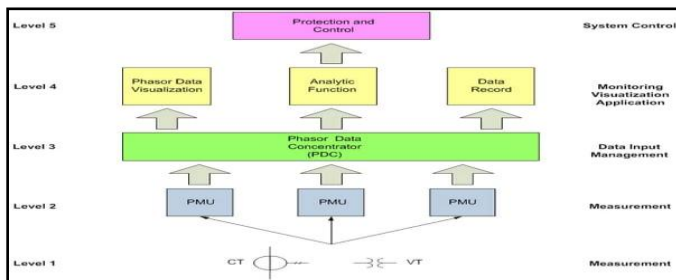


FIGURE: 2 WIDE AREAS MONITORING SYSTEMS COMPONENTS

1.2 PHASOR MEASUREMENT UNIT (PMU)

PMU is a device which measure the real time voltage and current and voltage phasor of a network and state estimate the measurements to get all the required variables for controlling and monitoring purpose and frequency of a given node. Due to wide area of possible applications many PMUs have been installed. Today the rapidly evolving scenario of distribution grid where the increasing the presence of distribution generators asked for increasing measurement accuracy faster reporting rate and higher communication capabilities. PMU measure both the magnitude and the phasor of the waveform and give output which is used to find the unknown components used for controlling and monitoring purpose. PMU consists of three basic units can be given as:-

- i. Synchronization Unit with clock
- ii. Measurement Unit which measure voltage and current waveforms
- iii. Data Transmission Unit to transmit data

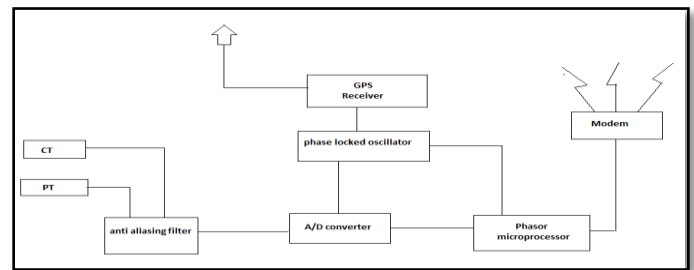


FIGURE 3: STRUCTURE OF PMU

1.3 OPTIMAL PMU PLACEMENT (OPP)

Phasor Measurement Units are capable of measuring the voltage and current phasor in real time. Also, PMU are able to measure the voltage and current phasor of the bus on which installed and the neighboring buses which are connected to PMU. This clearly shows that there is no need to install the PMUs at each bus in a power system network. By applying PMUs at selected locations only, all the buses can become observable. The complete Observability gives us the complex voltages at each and every bus of the power system. Once the information about complex voltages and network parameters are known then any electrical quantity of the power system network can be found very easily. In large and complex system, optimization technique help us for determining the minimal set of PMUs so that every bus of the power system network is observed by the minimal set of PMUs at least one time. placement of PMUs in a power system such as integer linear programming (ILP), simulated annealing (SA), exhaustive search (ES), genetic algorithm (GA), differential evolution (DE), and also binary particle swarm optimization (BPSO). Among these optimization methods, the ILP is the most dominant method used in solving this problem.

4. CONCLUSION

On Wide-area protection, currently, is a highly demanding

research area. A comprehensive survey of present status of wide area protection and control applications in power system is carried out in this paper. One of the major issues in the application of this relatively new technology is integration of WAMS based adaptive relaying schemes with conventional protection schemes comprising of fault detection, fault identification and fault location. for optimal placement of PMU is presented in this paper. The new iterative method makes the test systems topologically observable by placing a set of minimum PMUs. The three stage algorithm is simple, fast and easy to implement. The present method obtains optimal solution using simple network connectivity information. the method in obtaining the minimum number of PMUs required for complete observability of power systems and also its advantage of computational efficiency.

REFERENCES

1. Gopakumar P, Chandra G S, Reddy M J B, Mohanta D K. Optimal placement of PMUs for the smart grid implementation in Indian power grid — A case study. *Frontiers in Energy*, 7(3): 358–372, 2013.

2. Y. Shi, H. D. Tuan, T. Q. Duong, H. V. Poor, and A. V. Savkin, "PMU placement optimization for efficient state estimation in smart grid," *IEEE Journal on Selected Areas in Communications*, vol. 38, no. 1, pp. 71–83, 2020.

3. A. Dubey, S. Chakrabarti, and V. Terzija, "SCADA and PMU measurement based methods for robust hybrid state estimation," *Electric Power Components and Systems*, vol. 47, no. 9-10, pp. 849–860, 2019.

4. H. Manoharan, S. Srikrishna, G. Sivarajan, and A. Manoharan, "Economical placement of PMUs considering observability and voltage stability using binary coded ant lion optimization," *International Transactions on Electrical Energy Systems*, vol. 28, no. 9, Article ID e2591, 2018.

5. T. Johnson and T. Moger, "A critical review of methods for optimal placement of phasor measurement units," *International Transactions on Electrical Energy Systems*, vol. 31, no. 3, p. 3, 2020.

6. N. M. Manousakis, G. N. Korres, and P. S. Georgilakis, "Taxonomy of PMU placement methodologies," *IEEE Transactions on Power Systems*, vol. 27, no. 2, pp. 1070–1077, 2012.

7. R. Babu and B. Bhattacharyya, "Strategic placements of PMUs for power network observability considering redundancy measurement," *Measurement*, vol. 134, pp. 606–623, 2019.

8. S. Kumar, B. Tyagi, V. Kumar, and S. Chohan, "Optimization of phasor measurement units placement under contingency using reliability of network components," *IEEE Transactions on Instrumentation and Measurement*, vol. 69, no. 12, pp. 9893–9906, 2020.

9. M. K. Arpanahi, H. H. Alhelou, and P. Siano, "A novel multiobjective OPP for power system small signal stability assessment considering WAMS uncertainties," *IEEE Transactions on Industrial Informatics*, vol. 16, no. 5, pp. 3039–3050, 2020

10. Z. Jin, P. Dattaray, P. Wall, J. Yu, and V. Terzija, "A screening rule-based iterative numerical method for observability analysis," *IEEE Transactions on Power Systems*, vol. 32, no. 6, pp. 4188–4198, 2017.

11. Phadke, A.G., Volskis, H., de Moraes, R.M., Bi, T., Nayak, R.N., Sehgal, Y.K., Sen, S., Sattinger, W., Martinez, E., Samuelsson, O. and Novosel, D., 2008. The wide world of wide-area measurement. *IEEE Power and Energy Magazine*, 6(5), pp.52-65.

12. M. B. Mohammadi, R. A. Hooshmand, and F. H. Fesharaki, "A new approach for optimal placement of PMUs and their required communication infrastructure in order to minimize the cost of the WAMS," *IEEE Trans. Smart Grid*, vol. 7, no. 1, pp. 84–93, 201

13. A. Pal, A. K. S. Vullikanti, and S. S. Ravi, "A PMU Placement Scheme Considering Realistic Costs and Modern Trends in Relaying," *IEEE Trans. Power Syst.*, vol. 32, no. 1, pp. 552–561, 2017.

14. S. Nikkhah, J. Aghaei, B. Safarinejadian, and M.-A. Norouzi "Contingency constrained phasor measurement units placemen with n – k redundancy criterion: a robust optimisation approach," *IET Sci. Meas. Technol.*, vol. 12, no. 2, pp. 151–160, 2018.

15. K. Satish Kumar and M. Sydulu, "Optimal PMU placement techniques for the topological observability of a partial network of the southern grid of India", vol. 3, no. PART 1. IFAC, 2014.

16. C. Lu, Z. Wang, M. Ma, R. Shen, Y. Yu, and S. Member, "An Optimal PMU Placement With Reliable Zero Injection Observation," IEEE Access, vol. 6, pp. 54417-54426, 2018.

17. S. P. Singh, A. K. Thakur, and S. P. Singh, "PMU Placement for Maximum Observability of Power System under Different Contingencies," Energy Procedia, vol. 117, pp. 893-900, 2017.

18. Nadia H.A. Rahman, Ahmed F. Zobaa "Optimal PMU placement using topology transformation method in power systems" Journal of Advanced Research 7, 625-634, 2016.

19. Rahul Gore, Mallikarjun Kande "Analysis of Wide Area Monitoring System Architectures" IEEE, 978-1-4799-7800-7/15, 2015.



A COMPARATIVE STUDY OF NEW EDUCATION POLICY (NEP) 2020 WITH EXISTING NATIONAL POLICY OF EDUCATION 1986

VIVEK KUMAR MEENA

RESEARCH SCHOLAR, DEPARTMENT OF SOCIOLOGY, M.L.V. GOVERNMENT COLLEGE, BHILWARA -311011, RAJASTHAN, INDIA.

DR. HAMENDRA NATH VYAS

ASSOCIATE PROFESSOR, DEPARTMENT OF SOCIOLOGY, M.L.V. GOVERNMENT COLLEGE, BHILWARA -311011, RAJASTHAN, INDIA.

ABSTRACT:

The National Education Policy 2020 is a welcome and ambitious re-imagining of India's education system into a modern, progressive and equitable one. Successful execution of this policy calls for dramatic simplification of decision-making structures and re-prioritization of budgetary resources in months and years to come. It was found that one of the main objectives of NEP 2020 is to increase student's enrollment in all educational institutions such as elementary school, professional and higher education by 2030. Higher education is an important aspect in deciding the economy, social status, technology adoption, and healthy human behavior in every country. Improving GER to include every citizen of the country in higher education offerings is the responsibility of the education department of the country government. National Education Policy of India 2020 is marching towards achieving such objective by making innovative policies to improve the quality, attractiveness, affordability, and increasing the supply by opening up the higher education for the private sector and at the same time with strict controls to maintain quality in every higher education institution. The NEP of 1986 aimed promoting minority education, education for women equality, education of SC, ST and backward sections and emphasis was more given towards equal education opportunities and education to all sections of the society. This new education policy has given highest priority in solving the problem of school dropouts and adopts an array of meticulously formulated strategies based on micro planning and applied at the grass root levels of all over the country. The NPE 1986, which created a pool of educational system and trained human resources who contributed to the value chain of development but NEP 2020 aspires of creating human resources who will generate value propositions. In an online survey conducted across 1103 students in India, nearly 96.4% were optimistic about the results that come out of the implementation of new policy. The NEP, which is designed to ease the burden of classroom teaching and examination on students, will play an important role in creating the future of the country.

KEYWORDS:

NATIONAL EDUCATION POLICY (NEP), GROSS ENROLMENT RATIO (GER), HIGHER EDUCATION.

INTRODUCTION

Education is fundamental for achieving full human potential, developing an equitable and just society and promoting national development. Providing universal access to quality education is the key to India's continued ascent and leadership on the global stage in terms of economic growth, social justice and equality, scientific advancement, national integration and cultural preservation as mentioned in Directive Principles of State Policy and Fundamental Duties. India's previous Education Policy was passed and implemented in 1986. After thirty-four years, the National Education Policy (NEP) for India has been updated, revised and approved on 29 July 2020. The policy signifies a huge milestone for India's Education System, which will certainly make India an attractive destination for higher education worldwide. The policy is based on the pillars of "Access, Equity, Quality, and Affordability & Accountability" and will transform India into a vibrant knowledge hub. NEP 2020 emphasis systematic and institutional improvements to regulate govern and promote multidisciplinary academic and research in Indian HEIs. NEP 2020 has marked an epoch

development in the educational landscape of India. The policy envisions an Indian centred education system compatible to transform India to a vibrant knowledge society. Remarkably, the thrust area of the new education policy is to make the system of education well-resourced and multidisciplinary by the consolidation of multiple educational institutions and disciplines which constantly strives to deliver the needs.

OBJECTIVES OF THE STUDY

The NEP 2020 has many initiatives to improve the quality and the broadness of the education system in India. The objectives of this study are:

1. To highlight the overview of the NEP 2020
2. To identify the challenges of existing educational policy
3. To compare NEP 2020 with the currently adopted policy in India
4. To discuss the merits and drawbacks of NEP 2020
5. To give you a clear idea on the efficacy of NEP 2020

6. To understand the relevance of NEP 2020

HIGHLIGHTS OF NEW EDUCATION POLICY 2020

- This is the first education policy of the 21st century and will replace the thirty four year old National Policy on Education (NPE), 1986
- The new policy aims for universalization of education from pre-school to secondary level with 100 per cent Gross Enrolment Ratio (GER) in school education by 2030 and aims to raise GER in higher education to 50 per cent by 2035. NEP 2020 will bring two crore out of school children back into the main stream
- The 10+2 structure of school curricula is to be replaced by a 5+3+3+4 curricular structure corresponding to ages 3-8, 8-11, 11-14 and 14-18 years respectively. It will include 12 years of schooling and three years of Anganwadi and pre-schooling
- NCERT will develop a National Curricular and Pedagogical Framework for Early Childhood Care and Education (NCPFECCE) for children up to the age of eight
- NEP 2020 calls for setting up a National Mission on Foundational Literacy and Numeracy by the Ministry of Education. States will prepare an implementation plan for attaining universal foundational literacy and numeracy in all primary schools for all learners by grade 3 by 2025
- A National Book Promotion Policy is to be formulated
- All students will take school examinations in Grades 3, 5 and 8 which will be conducted by the appropriate authority. Board exams for Grades 10 and 12 will be continued, but redesigned with holistic development as the aim
- A new National Assessment Centre, PARAKH (Performance Assessment, Review and Analysis of knowledge for Holistic Development), will be set up as a standard-setting body
- NEP emphasises on setting up of Gender Inclusion Fund and also Special Education Zones for disadvantaged regions and groups
- Every state/district will be encouraged to establish 'Bal-Bhavan' as a special daytime boarding school, to participate in age-related, cancer-related and play-related activities. Free school infrastructure can be used as Samajik Chetna Kendras
- A common National Professional Standards for Teachers (NPST) will be developed by the National Council for Teacher Education by 2022, in consultation with NCERT, SCERTs, teachers and expert organisations from across levels and regions
- States/UTs will set up independent State School Standards Authority (SSSA). The SCERT will

develop a School Quality Assessment and Accreditation Framework (SQAAF) through consultations with all stakeholders

- NEP 2020 aims to increase the Gross Enrolment Ratio in higher education including vocational education from 26.3 per cent in 2018 to 50 per cent by 2035 and aims to add 3.5 crore new seats to higher education institutions
- The policy envisages broad-based, multidisciplinary, holistic Under Graduate education with flexible curricula, creative combination of subjects, integration of vocational education and multiple entry and exit points with appropriate certification
- An Academic Bank of Credit to be established for digitally storing academic credits earned from different HEIs so that these can be transferred and counted towards final degree earned
- Multidisciplinary Education and Research Universities (MERUs), at par with IITs, IIMs, to set up as models of best multidisciplinary education of global standards in the country The National Research Foundation will be created as an apex for fostering a strong research culture and building research capacity across higher education
- Higher Education Commission of India (HECI) will be set up as a single overarching umbrella body for entire higher education, excluding medical and legal education
- Public and private higher education institutions will be governed by the same set of norms for regulation, accreditation and academic standards
- Affiliation of colleges is to be phased out in 15 years and a state-wide mechanism is to be established for granting grades autonomy to colleges
- A new and comprehensive National Curriculum Framework for Teacher Education, NCFTE 2021, will be formulated by the NCTE in consultation with NCERT
- By 2030, the minimum degree qualification for teaching will be a 4-year integrated B.Ed. degree
- Stringent action will be taken against Teacher Education Institutions (TEIs)
- A National Mission for Mentoring will be established, with a large pool of outstanding senior/retired faculty who would be willing to provide short and long term mentoring/professional support to university/college teachers
- The National Scholarship Portal will be expanded to track the progress of students receiving scholarships
- Private HEIs will be encouraged to offer larger number of free ships and scholarships to their students
- Measures such as online courses and digital

repositories, funding for research, improved student services, credit based recognition of MOOCs, etc., will be taken to ensure distance learning is at par with the highest quality in-class programmes

- A comprehensive set of recommendations for promoting online education consequent to the recent rise in epidemics and pandemics in order to ensure preparedness with alternative modes of quality education whenever and wherever traditional modes of education are not possible, has been covered
- A dedicated unit for the purpose of orchestrating the building of digital infrastructure, digital content and capacity building will be created in the HRD ministry to look after the e-education needs of both school and higher education
- An autonomous body, the National Education Technology Forum (NETF), will be created to provide a platform for the free exchange of ideas on the use of technology to enhance learning, assessment, planning and administration
- NEP recommends setting an Indian Institute of Translation and Interpretation (IITI), National Institute (or Institutes) for Pali, Persian and Prakrit, strengthening of Sanskrit and all language departments in HEIs and use mother tongue/ local language as a medium of instruction in more HEI programmes

CHALLENGES OF NATIONAL POLICY OF EDUCATION 1986 (EXISTING POLICY)

- The education policies are silent on condition of those schools which are run throughout the country on commercial lines by certain persons or bodies. No education policies, so far, has suggested measures for reducing the differences in educational standards of poor children and more privileged ones
- The education policy of 1986 has recommended for starting an All India Educational Service. If this suggestion was implemented, the existing gulf between teachers and bureaucracy will be further widened. The All India Educational Service was stopped during the British days. The propriety of starting it again does not understand
- The various education policies stand for admission to university classes on the basis of capability. These features will deprive many youths of university education. According to some critics the Open University can never be a good substitute for regular university classes
- The education policy of 1986 had recommended the institution of capitation fees for admitting students in technical institutions. This cannot be accepted as a healthy policy, as this is likely to deprive many deserving students of obtaining technical education, if they cannot pay such a fee. Engineering graduates who have obtained their

technical education on the basis of capitation fees are sure to be poor and unreliable workers afterwards in their so called chosen areas.

HOW THE NEW EDUCATION POLICY 2020 WILL BE IMPLEMENTED?

- The new education policy in 2020 came after 30 years and is all set to change the existing academic system of India with the purpose of making it at par with the international standard of academic
- The Government of India aims to set up the NEP by the year 2040. Till the targeted year, the key point of the plan is to be implemented one by one
- The proposed reform by NEP 2020 will come into effect by the collaboration of the Central and the State Government
- Subject wise committees will be set up with the Government of India both central and state-level ministries for discussing the implementation strategy

NEW EDUCATION POLICY 2020 AND TEACHER'S DEVELOPMENT

- Stand-alone Teacher Education institutions will be converted into multi-disciplinary institutions by 2030 offering 4-year integrated teacher preparation programme
- All fresh Ph.D. entrants, irrespective of discipline, will be required to take credit based courses in teaching/education/pedagogy/writing related to their chosen Ph.D. subject during their doctoral training period
- Ph.D. students will also have a minimum number of hours of actual teaching experience gathered through assistantships and other means. Ph.D. programmes at universities around the country will be re-oriented for this purpose

MERITS OF NEW EDUCATION POLICY 2020

- The Government aims to make schooling available to everyone with the help of NEP 2020
- Approximately two crore school students will be able to come back to educational institutes through this new approach
- According to the NEP 2020, the Education Ministry is to set up a National Mission on Foundation Literacy and Numeracy. The responsibility for successful implementation for achieving the foundation numeracy and literacy for all students till class three falls upon the states of India. This implementation is scheduled to be done by 2025
- One of the merits of NEP 2020 is the formation of National Book Promotion Policy in India
- This new plan focuses on setting up a Gender Inclusion Fund. Special Education Zones for disadvantaged regions and groups is also in the focused list

DRAWBACKS OF THE NEW EDUCATION POLICY 2020

- In the New Education Policy 2020, language is a negative factor as there is a problematic teacher to student ratio in India, thus introducing mother languages for each subject in academic institutes is a problem. Sometimes, finding a competent teacher becomes a problem and now another challenge comes with the introduction of the NEP 2020, that is bringing study material in mother languages
- According to the NEP 2020, students willing to complete their graduation have to study for four years while one can easily complete his/her diploma degree in two years. This might encourage the pupil to leave the course midway
- According to the National Education Policy 2020, students of the private schools will be introduced with English at a much earlier age than the students of the Government schools. The academic syllabus will be taught in the respective regional languages of the government school students. This is one of the major new education policy drawbacks as this will increase the number of students uncomfortable in communicating in English thus widening the gap between sections of the society.

CONCLUSION

The observations and recommendations of NEP 2020 are indeed progressive in nature. It gives a fresh look to the educational system which is inbuilt with flexibility and mark of quality that is capable of moulding India to a vibrant society which matches our rich cultural heritage. The NPE 1986, which created a pool of educational system and trained human resources who contributed to the value chain of development but NEP 2020 aspires of creating human resources who will generate value propositions. With the implementation of the new NEP 2020, the Indian education system is poised to become closer to international standards. In an online survey conducted across 1103 students in India, nearly 96.4% were optimistic about the results that come out of the implementation of new policy. The NEP, which is designed to ease the burden of classroom teaching and examination on students, will play an important role in creating the

future of the country. Its success, however, lies in uniform and transparent implementation at all levels, with an equitable distribution of resources. This mammoth task can be realized only when there is 100% co-operation and collaboration between all the stakeholders backed by institutional mechanisms.

REFERENCES

1. Nandini, ed. (29 July 2020). "New Education Policy 2020 Highlights. School and Higher Education to see major changes". Hindustan Times.
2. Jebaraj, Priscilla (2 August 2020). "The Hindu explains| what has the National Education Policy 2020 proposed?" The Hindu. ISSN 0971-751X
3. Chopra, Rithika (2 August 2020). "Explained: Reading the new National Education Policy 2020". The Indian Express.
4. Shukla, Amandeep (29 July 2020). "New Education Policy 2020: NEP moots professional standards for teachers". Hindustan Times.
5. Dr. D P Sharma on "The Challenges in Indian Education System". Eduvoice| the Voice of Education Industry. 25 May 2020.
6. Final National Education Policy 2020 (PDF) (Report). Ministry of Human Resource Development
7. <https://www.education.gov.in>
8. <https://pib.gov.in>
9. <https://www.business-standard.com>
10. <https://www.educationtimes.com>



COMPETITION POLICY IN INDIA - DURING AND AFTER COVID-19 PANDEMIC

SANTOSH DUDI

PH.D. (ECONOMICS), JAI NARAIN VYAS UNIVERSITY, JODHPUR

ABSTRACT:

The objectives of competition policy in India are the creation of an active competitive environment and to aid and abet the process of creating globally competitive firms with enhanced investment and technological capabilities. To achieve these objectives, the government will need to play a proactive role. Rather than restricting themselves to issues conventionally covered by competition law, the authors consider, as part of competition policy, all those policy instruments that impinge on the promotion of competition in markets. Consequently, policies relating to trade, investment and technology development also come under the purview of competition policy insofar as they impinge on the process of competition. The formulation and implementation of an effective competition policy in the current context is a difficult task as it needs to be consistent with other policies which are transforming India into a liberal open economy.

The corona virus (COVID-19) pandemic has provoked a public health crisis without precedent in living memory. In addition to causing large-scale loss of life and severe human suffering, the pandemic has also set in motion a major economic crisis that will burden our societies for years to come. The OECD is contributing to a co-ordinate policy response across countries and competition policy is one dimension of that response. History has shown that the same basic principles of competition economics apply during times of economic recession as during times of economic expansion. Sound competition policy is all the more important in moments of crisis to ensure that the crisis is solved and the subsequent economic recovery, as fast and sustained as possible. This requires competition authorities to act today to help the overall policy response of governments to deal with this crisis in a sustainable way. Governments need to be receptive to advice from competition authorities to make sure that competition principles can be respected and help pave the way to recovery.

This paper concludes the competition-related responses that can help guide the actions of governments and competition authorities in today's challenging times.

KEYWORDS:

COMPETITIVE ENVIRONMENT, ECONOMIC RECOVERY, POLICY RESPONSE, PANDEMIC, COMPETITION AUTHORITIES.

INTRODUCTION

Competition refers to a situation in a marketplace in which firms/ entities or sellers independently enter and compete for attracting a potential group or population of buyers in order to achieve a particular business objective, such as profits, sales, or market share. Competition is not an end unto itself, rather it is a means to achieve economic incentives and welfare objectives. A market can only flourish if there exists free and fair competition. Therefore, competition has become a driving force globally as well for international trade and commerce.

The Indian economy is on a developing path which has helped it in attracting a lot of investments from foreign nations as well. . Recently, the Indian economy has been one of the strongest competitors in the world. However, it has not benefited from its fullest potential which means it could develop further in the coming future. Maintaining an equal level of competition acts as a catalyst in unlocking the potential in many areas of the economy as well as circumstances, which has been held back by certain restrictions, on competition and collaboration in various forms. This pandemic is one such situation that has

accelerated the process of Atma Nirbhar Bharat or self-reliant India.

However, due to the pandemic, businesses have been disrupted globally. While the companies which suffered major setbacks and losses had to shut down, the others may look for a way of combinations or mergers to survive this time but they needed to be within the guidelines or relaxations given by the CCI. Companies selling essentials tend to make a profit out of this situation by increasing prices or resorting to unfair trade practices. Due to this, the CCI and other global bodies are closely keeping tabs on the market. Companies need to be aware that the Competition Act, 2002, is applicable to all irrespective of the pandemic.

Many relaxations have been provided in various sectors of the Indian economy ranging from the Reserve Bank of India to the Securities Exchange Board of India in view of the downfall of the economy which resulted in unemployment, an increase in loans, financial crisis, etc. Many countries like the United Kingdom, Sweden, etc had already provided relaxations and were keeping a close eye

on the competitive activities by them in order to protect the consumers.

MATERIAL AND METHODS

COVID-19 emergency government support and ensuring a level playing field on the road to recovery. This brief considers ways to ensure that short-term COVID-19 crisis responses do not result in unintended negative implications for competition and trade in the medium- and long-term. It highlights the competition and trade policy tools governments can use to effectively balance the needs of pandemic responses while ensuring that they do not undermine efforts to maintain a level playing field, domestically and globally.

COMPETITION POLICY RESPONSES TO COVID-19

This policy brief discusses how competition policy can help address the immediate challenges raised by the COVID crisis while preparing for the post-pandemic future. In this short outline actions that governments and competition authorities can consider to help address the immediate challenges raised by the crisis whilst looking to the post-pandemic future.

COVID-19: MANAGING OPERATIONAL CHALLENGES AND ENFORCEMENT RISKS FOR COMPETITION AUTHORITIES

This note looks at the operational challenges and enforcement risks for competition authorities arising from the crisis and the confinement measures and provides some guidance to authorities.

COVID-19: COMPETITION AND EMERGENCY PROCUREMENT

This is also make examines the conditions when direct awards may be necessary for emergency reasons and provides guidance for procurement and competition authorities for when departing from competitive tenders may be justified.

MERGER CONTROL IN THE TIME OF COVID-19

In the context of COVID-19, this note analyses some key challenges related to merger control that competition authorities will face in the following months and presents open issues that require further discussion to ensure consistency across jurisdictions.

EXPLOITATIVE PRICING IN THE TIME OF COVID-19

This analyses the role of competition agencies facing high prices caused by the Covid-19 crisis. It discusses the circumstances under which competition enforcement may be justified, how to overcome the difficulties that competition authorities pursuing such a course are likely to face, and available regulatory alternatives to address high prices during a pandemic.

CO-OPERATION BETWEEN COMPETITORS IN THE TIME OF COVID-19

This note identifies some of the criteria that competition

authorities may consider when assessing co-operation between competitors in the context of the Covid-19 pandemic, and presents solutions to some of the challenges raised by their analysis. Some potential issues are highlighted to prompt further discussion.

ECONOMIC RESILIENCE AND COMPETITION POLICY IN THE TIME OF COVID-19

In this section, OECD Competition Committee on global scenario, shares his views on the impact of COVID-19 on global economies and how markets have responded to the social and economic challenges raised by the health and economic crisis that follows it. He also explores, in particular, the challenges faced by competition policy and authorities.

ECONOMIC RESILIENCE, GLOBALISATION AND MARKET GOVERNANCE: FACING THE COVID-19 TEST

This opinion piece by reflects on economic, competition and social policy issues in the time of COVID-19. As the COVID-19 crisis develops and moves through different stages including soon towards economic recovery, governments, policymakers and regulators, including competition authorities, face different challenges in order to support a swift and robust recovery.

In this context, the question therefore arises: how can competition policy and more specifically competition authorities contribute to a faster and more sustained economic recovery?

WE CAN MAKE BRIEF DISCUSSION POINTWISE AS BELOW:

- Is there a role for competition authorities in the recovery phase and what might it be?
- What is the role of competition advocacy in the design and implementation of state interventions?
- What is the role for competition enforcement in the recovery?

The key findings of this discussion will be again explored the Covid-19 crises, economic problems and outcomes during and after this pandemic.

CONCLUSION

This paper explains the changes brought by finance department of India in the given pandemic situation, new hurdles in the market, anti-trust acts, exploitation of the consumers, whether prices could be increased at the whims of the companies, pharmaceutical industries, and steps taken by the Competition Commission of India (CCI).

In a world hard hit by a pandemic on an unprecedented scale, where entire sectors are being subject to change, expecting market forces to provide all the incentives to adapt to the new world within the timeframes that minimises deep economic crisis with all its implications on social cohesion, is probably not enough. Therefore, in most jurisdictions, the state has been playing a role in minimising the direct hit from the crisis and can be

expected to continue to play a role in the shaping of the recovery.

Similarly, governments, central banks, and regulators used various policy tools to assist financial institutions and prevent risks from spilling over from the financial sector to other parts of the economy. Central banks lowered interest rates and eased liquidity conditions, making it easier for commercial banks and nonbank financial institutions such as microfinance lenders to refinance themselves, thereby allowing them to continue to supply credit to households and businesses.

As far as steps and actions taken by countries worst affected from this crises and in light of the given situation, it is possible that the businesses and enterprises may take or adapt steps to overcome their losses which are against the law and which would directly or indirectly affect the market and overall the consumers due to which CCI and other such bodies are on their toes globally. In several countries like European Union, the United Kingdom the

United States of America, Spain, France, and South Africa an announcement was already made that they are keeping a close tab on the functioning of companies during these tough times so as to equalise competition in the market and protect consumers interests.

REFERENCES

1. <https://t.me/lawyerscommunity>
2. <https://blog.ipleaders.in/covid-19-and-the-competition-law-in-india/>
3. [https://tradingeconomics.com/country-list/rating.](https://tradingeconomics.com/country-list/rating)
4. [https://openknowledge.worldbank.org/handle/10986/35290.](https://openknowledge.worldbank.org/handle/10986/35290)



वर्तमान में प्राकृतिक खेती का बढ़ता उपयोग बिलाड़ा एवं पीपाड़ तहसीलों में

ओमप्रकाश

मौलाना आजाद विश्वविद्यालय, गाँव- बुझावर, तहसील- लूणी, जोधपुर.

डॉ. लक्ष्मणराम बाला

मौलाना आजाद विश्वविद्यालय, गाँव- बुझावर, तहसील- लूणी, जोधपुर.

ABSTRACT:

कर्ज और जहर बगैर खेती के कई रूप और नाम हैं - जैविक, प्राकृतिक जीरो बजट, वैकल्पिक खेती इत्यादि। प्राकृतिक खेती में रासायनिक खादों, कीटनाशक का प्रयोग नहीं किया जाता है प्राकृतिक खेती का अर्थ केवल इतना ही नहीं है कि यूरिया की जगह गोबर कि खाद का प्रयोग हो। प्राकृतिक खेती अपनाने का उद्देश्य यह है कि किसान को सम्मानजनक और सुरक्षित आमदनी मिले। छोटी जोत कि खेती भी सम्मानजनक रोजगार और जीवन देती है

हर इंसान को अनुकूल और पर्याप्त भोजन मिले। इसके साथ साथ पर्यावरण सन्तुलन भी प्राकृतिक खेती का महत्वपूर्ण योगदान है। यह खेती प्राकृतिक संसाधनों पर निर्भर है इसे जीरो बजट खेती के नाम से भी जाना जाता है **इस खेती के जनक महाराष्ट्र के सुभास पालेकर हैं।**

प्राकृतिक खेती को रासायनमुक्त खेती के रूप में परिभाषित किया जा सकता है जिसमें केवल प्राकृतिक आदानों का उपयोग करता है। कृषि-पारिस्थितिकी में अच्छी तरह से आधारित, यह एक विविध कृषि प्रणाली है जो फसलों, पेड़ों और पशुधन को एकीकृत करती है, जिससे कार्यात्मक जैव विविधता के इष्टतम उपयोग की सुविधा मिलती है। प्राकृतिक खेती कई अन्य लाभों, जैसे कि मिट्टी की उर्वरता और पर्यावरणीय स्वास्थ्य की बहाली, और ग्रीनहाउस गैस उत्सर्जन का शमन या निम्नीकरण, प्रदान करते हुए किसानों की आय बढ़ाने का मजबूत आधार प्रदान करती है।

वर्तमान में इस खेती पर प्रधानमंत्री ने भी अधिक बल दिया है तथा प्रधानमंत्री ने प्राकृतिक खेती सम्मेलन को संबोधित किया **"गुजरात अमृत काल के लक्ष्यों को प्राप्त करने के देश के संकल्प का नेतृत्व कर रहा है"**

"प्राकृतिक खेती का सूरत मॉडल पूरे देश के लिए मॉडल बन सकता है" "सबका प्रयास की भावना नए भारत की विकास यात्रा का नेतृत्व कर रही है" **"हमारे गाँवों ने कर दिखाया है कि गाँव न केवल बदलाव ला सकते हैं बल्कि बदलाव का नेतृत्व भी कर सकते हैं"**

"भारत प्रकृति और संस्कृति से एक कृषि आधारित देश रहा है" अब समय आ गया है कि हम प्राकृतिक खेती की राह पर आगे बढ़ें और वैश्विक अवसरों का पूरा लाभ उठाएं।

"जब किसान निर्यात करते हैं तो प्रमाणित प्राकृतिक कृषि उत्पादों की अच्छी कीमत मिलती है"

इस शोध प्रपत्र के माध्यम से बिलाड़ा एवं पीपाड़ तहसीलों के गाँवों को प्राकृतिक खेती की जागरूकता उत्पन्न करना एवं इस खेती को बढ़ावा देना है।

वर्तमान बिलाड़ा एवं पीपाड़ तहसीलों के आस-पास के गाँवों में प्राकृतिक खेती को बढ़ावा दिया जा रहा है जिससे फसल उत्पादन में भी अधिक बढ़ोतरी देखने को मिल रही है प्राकृतिक खेती से लाभ अधिक है इस खेती से मानव जीवन पर हानिकारक प्रभाव भी दिखाई नहीं दे रहा है इस खेती से मिट्टी में उपजाऊपन भी बना रहता है। अब समय आ गया है कि हम प्राकृतिक खेती के रास्ते पर आगे बढ़ें और उभर रहे वैश्विक अवसरों का पूरा फायदा उठाएं।

KEYWORDS:

प्राकृतिक खेती, रासायन मुक्त खेती, जैव विविधता, ग्रीन हाऊस गैस, हमारा समाज, धरती माँ, सम्मान, गौ माता, किसान, सिद्धांत, प्रकृति, देश, सेवा, उत्पादकता, वैश्विक, अवसर, मिट्टी की उर्वरता, कीटनाशक,।

परिचय:

Natural Farming: प्राकृतिक खेती का मुख्य आधार देसी गाय है।

प्राकृतिक खेती कृषि की प्राचीन पद्धति है। यह भूमि के प्राकृतिक

स्वरूप को बनाए रखती है। प्राकृतिक खेती में रासायनिक कीटनाशक का उपयोग नहीं किया जाता है। इस प्रकार की खेती में जो तत्व प्रकृति में पाए जाते हैं, उन्हीं को खेती में कीटनाशक के रूप में काम में लिया जाता है। वर्तमान में बिलाड़ा एवं पीपाड़ तहसीलों के आस-पास के गावों में प्राकृतिक खेती को बढ़ावा दिया जा रहा है यहाँ के किसानों की मेहनत, शिक्षा, नई तकनीकी, कृषि ऋण की सुविधा, अधिक निवेश क्षमता, इत्यादि के कारणों से फसलों का उत्पादन अधिक हो रहा है। वर्तमान में यहाँ के किसानों की जागरूकता तथा रूची के कारण प्राकृतिक खेती का अधिक उपयोग किया जा रहा है। प्राकृतिक खेती की उपयोगिता के बारे में जानकारी होने के कारण ही प्राकृतिक खेती पर अधिक जोर दिया जा रहा है।

प्राकृतिक खेती में कीटनाशकों के रूप में गोबर की खाद, कम्पोस्ट, जीवाणु खाद, फसल अवशेष और प्रकृति में उपलब्ध खनिज जैसे- रॉक फास्फेट, जिप्सम आदि द्वारा पौधों को पोषक तत्व दिए जाते हैं। प्राकृतिक खेती में प्रकृति में उपलब्ध जीवाणुओं, मित्र कीट और जैविक कीटनाशक द्वारा फसल को हानिकारक जीवाणुओं से बचाया जाता है।

धरती में इतनी क्षमता है कि वह सब की जरूरतों को पूरा कर सकती है, लेकिन किसी के लालच को पूरा करने में वह सक्षम नहीं है..... महात्मा गांधी के सोलह आना सच्चे इस वाक्य को ध्यान में रखकर प्राकृतिक खेती की जाये, तो किसान को न तो अपने उत्पाद को निम्न दाम में बेचना पड़े और न ही पैदावार कम होने की शिकायत रहे। लेकिन सोना उगलने वाली हमारी धरती पर खेती करने वाला किसान लालच का शिकार हो रहा है।

कृषि आधारित अर्थव्यवस्था वाले इस देश में रासायनिक खेती के बाद अब जैविक खेती सहित पर्यावरण हितैषी खेती, एगो इकोलोजिकल फार्मिंग, बायोडायनामिक फार्मिंग, वैकल्पिक खेती, शाश्वत कृषि, सावयव कृषि, सजीव खेती, सांद्रिय खेती, तथा नडेप कृषि जैसी अनेक प्रकार की विधियाँ अपनाई जा रही हैं और संबंधित जानकार इसकी सफलता के दावे करते आ रहे हैं।

परन्तु किसान भ्रमित है। परिस्थितियाँ उसे लालच की ओर धकेलती जा रही हैं। उसे नहीं मालूम उसके लिये सही क्या है ? रासायनिक खेती के बाद उसे अब जैविक कृषि दिखाई दे रही है। किन्तु जैविक खेती से ज्यादा सस्ती, सरल एवं ग्लोबल वार्मिंग (पृथ्वी के बढ़ते तापमान) का मुकाबला करने वाली **"प्राकृतिक खेती"** मानी जा रही है। प्रधानमंत्री ने भी इस कृषि के बारे में जोर दिया है तथा यह कहां की वर्तमान में **"हमारा जीवन, हमारा स्वास्थ्य, हमारा समाज सबके आधार में हमारी कृषि व्यवस्था ही है"**। भारत तो स्वभाव और संस्कृति से कृषि आधारित देश ही रहा है।

इसलिए, जैसे-जैसे हमारा किसान आगे बढ़ेगा, जैसे-जैसे हमारी कृषि

उन्नत और समृद्ध होगी, वैसे-वैसे हमारा देश आगे बढ़ेगा।

"उन्होंने किसानों को याद दिलाया कि प्राकृतिक खेती समृद्धि का साधन होने के साथ-साथ हमारी धरती मां का सम्मान और सेवा भी है"।

उन्होंने कहा, "जब आप प्राकृतिक खेती करते हैं तो आप धरती माता की सेवा करते हैं मिट्टी की गुणवत्ता उसकी, उत्पादकता की रक्षा करते हैं जब आप प्राकृतिक खेती करते तो आप प्रकृति और पर्यावरण की सेवा करते हैं

जब आप प्राकृतिक खेती से जुड़ते हैं तो आपको गौ माता की सेवा का सौभाग्य भी मिलता है।

"प्रधानमंत्री ने विश्वास व्यक्त किया कि प्राकृतिक खेती को लेकर जन आंदोलन भी आने वाले दिनों में एक बड़ी सफलता होगी। उन्होंने कहा कि जो किसान इस आंदोलन से जल्दी जुड़ जाएंगे उन्हें बहुत फायदा होगा।

प्रधानमंत्री ने कहा कि पूरी दुनिया एक स्थायी जीवनशैली के बारे में बात कर रही है।

उन्होंने कहा, "यह एक ऐसा क्षेत्र है जहां भारत ने सदियों से दुनिया का नेतृत्व किया है, इसलिए अब समय आ गया है कि हम प्राकृतिक खेती के रास्ते पर आगे बढ़ें और उभर रहे वैश्विक अवसरों का पूरा फायदा उठाएं।

प्राकृतिक खेती को नमामि गंगे परियोजना से जोड़ा गया है क्योंकि गंगा नदी के किनारे प्राकृतिक कृषि गलियारा बनाने के लिए एक अलग अभियान चलाया गया है। प्रधानमंत्री ने प्राकृतिक खेती की उपज के प्रमाणीकरण के लिए गुणवत्ता आश्वासन प्रणाली जानकारी दी।

प्राकृतिक खेती के कुछ विशेष पहलू

1. यह पद्धति प्रकृति, आध्यात्मिक एवं अहिंसा पर आधारित शाश्वत कृषि पद्धति है।
2. कम लागत कृषि का नारा **"गांव का पैसा गांव में, शहर का पैसा गांव में"**
3. इस पद्धति में केवल 10 प्रतिशत पानी एवं 10 प्रतिशत बिजली की आवश्यकता होती है इसका मतलब हुआ 90 प्रतिशत पानी व 90 प्रतिशत बिजली की बचत होती है।
4. रासायनिक एवं जैविक कृषि से मानव पशु पक्षी, जल, एवं पर्यावरण का विनाश होता है जबकी कम लागत प्राकृतिक खेती से इन सबका विनाश रुकता है और प्राकृतिक संसाधनों की शाश्वतता बढ़ती है।
5. इस पद्धति में आपको रासायनिक खाद, गोबर खाद, जैविक खाद, केंचुआ खाद एवं जहरिले कीटनाशकों, रासायनिक,

खरपतवारनाशक रासायनिक फुंदनाशक नहीं डालना हैं केवल देशी गाय की सहायता से आप इस खेती को कर सकते हैं।

प्राकृतिक खेती की आवश्यकता

(NEED FOR NATURAL FARMING)

- पिछले कई वर्षों से खेती में काफी नुकसान देखने को मिल रहा है। इसका मुख्य कारण हानिकारक कीटनाशकों का उपयोग है। इसमें लागत भी बढ़ रही है।
- भूमि के प्राकृतिक स्वरूप में भी बदलाव हो रहे हैं जो काफी नुकसान भरे हो सकते हैं। रासायनिक खेती से प्रकृति में और मनुष्य के स्वास्थ्य में काफी गिरावट आई है।
- किसानों की पैदावार का आधा हिस्सा उनके उर्वरक और कीटनाशक में ही चला जाता है। यदि किसान खेती में अधिक मुनाफा या फायदा कमाना चाहता है तो उसे प्राकृतिक खेती की तरफ अग्रेसर होना चाहिए।
- खेती में खाने पीने की चीजे काफी उगाई जाती है जिसे हम उपयोग में लेते हैं। इन खाद्य पदार्थों में जिंक और आयरन जैसे कई सारे खनिज तत्व उपस्थित होते हैं जो हमारे स्वास्थ्य के लिए काफी लाभदायक होती हैं।
- रासायनिक खाद और कीटनाशक के उपयोग से ये खाद्य पदार्थ अपनी गुणवत्ता खो देते हैं। जिससे हमारे शरीर पर बुरा असर पड़ता है।
- रासायनिक खाद और कीटनाशक के उपयोग से जमीन की उर्वरक क्षमता खो रही है। यह भूमि के लिए बहुत ही हानिकारक है और इससे तैयार खाद्य पदार्थ मनुष्य और जानवरों की सेहत पर बुरा असर डाल रहे हैं।
- रासायनिक खाद और कीटनाशक के उपयोग से मिट्टी की उर्वरक क्षमता काफी कम हो गई। जिससे मिट्टी के पोषक तत्वों का संतुलन बिगड़ गया है। इस घटती मिट्टी की उर्वरक क्षमता को देखते हुए जैविक खाद उपयोग जरूरी हो गया है।

प्राकृतिक खेती के फायदे

(BENEFITS OF NATURAL FARMING)

- **किसानों की दृष्टि से लाभ**
 - भूमि की उपजाऊ क्षमता में वृद्धि हो जाती है।
 - सिंचाई अंतराल में वृद्धि होती है।
 - रासायनिक खाद पर निर्भरता कम होने से लागत में कमी आती है।
 - फसलों की उत्पादकता में वृद्धि।
 - बाज़ार में जैविक उत्पादों की मांग बढ़ने से किसानों की आय में भी वृद्धि होती है।

- **मिट्टी की दृष्टि से**
 - जैविक खाद के उपयोग करने से भूमि की गुणवत्ता में सुधार आता है।
 - भूमि की जल धारण क्षमता बढ़ती है।
 - भूमि से पानी का वाष्पीकरण कम होगा।
- **पर्यावरण की दृष्टि से**
 - भूमि के जलस्तर में वृद्धि होती है।
 - मिट्टी, खाद्य पदार्थ और जमीन में पानी के माध्यम से होने वाले प्रदूषण में कमी आती है।
 - कचरे का उपयोग, खाद बनाने में, होने से बीमारियों में कमी आती है।
 - फसल उत्पादन की लागत में कमी एवं आय में वृद्धि
 - अंतरराष्ट्रीय बाजार की स्पर्धा में जैविक उत्पाद की गुणवत्ता का खरा उतरना।

प्राकृतिक खेती के सिद्धांत

(FOUR PRINCIPLES OF NATURAL FARMING)

- **प्रथम :- खेतों में कोई जुताई नहीं करना। यानी न तो उनमें जुताई करना, और न ही मिट्टी पलटना।**
धरती अपनी जुताई स्वयं स्वाभाविक रूप से पौधों की जड़ों के प्रवेश तथा केंचुओं व छोटे प्राणियों, तथा सूक्ष्म जीवाणुओं के जरिए कर लेती है।
- **दूसरा :- किसी भी तरह की तैयार खाद या रासायनिक उर्वरकों का उपयोग न किया जाए।**
इस पद्धति में हरी खाद और गोबर की खाद को ही उपयोग में लाया जाता है।
- **तीसरा :- निंदाई-गुड़ाई न की जाए। न तो हलों से न किटनाशियों के प्रयोग द्वारा।**
खरपतवार मिट्टी को उर्वर बनाने तथा जैव-बिरादरी में संतुलन स्थापित करने में प्रमुख भूमिका निभाते हैं। बुनियादी सिद्धांत यही है कि खरपतवार को पूरी तरह समाप्त करने की बजाए नियंत्रित किया जाना चाहिए।
- **चौथा :- रसायनों पर बिल्कुल निर्भर न करना है।**
जोतने तथा उर्वरकों के उपयोग जैसी गलत प्रथाओं के कारण जब से कमजोर पौधे उगना शुरू हुए, तब से ही खेतों में बीमारियां लगने तथा कीट-असंतुलन की समस्याएं खड़ी होनी शुरू हुईं। छेड़छाड़ न करने से प्रकृति-संतुलन बिल्कुल सही रहता है।

निष्कर्ष:-

वर्तमान में प्राकृतिक कृषि इसी और किया गया एक सामूहिक प्रयास

हैं जिसमें पौधों के स्वास्थ्य पर नहीं बल्कि भूमि के स्वास्थ्य पर ध्यान केन्द्रित किया जाता है। पौधे तो स्वतः ही स्वस्थ हो जाते हैं यह कृषि पद्धति गाय पर आधारित है जिससे फसलों के लिये आवश्यक सभी पोषक तत्वों की पूर्ति हो जाती है।

देश के 83 प्रतिशत किसान छोटे व सीमांत किसान हैं यही किसान जब ऋण के बोझ तले दब जाते हैं तो आत्महत्या करने के लिये मजबूर हो जाते हैं इन्हीं किसानों को जैविक कृषि का सुनहरा सपना दिखाया जाता है जो कभी पूरा नहीं होता है क्यों की जैविक कृषि से पूरी पैदावार संभव नहीं है इसमें प्रयोग होने वाले उत्पाद भी महंगे हैं किसान वही खड़ा है लेकिन इनके नाम पर जैविक बाजार में लूट मची हुई है छोटे व सीमांत किसानों को इसका लाभ नहीं मिल रहा है इस किसान को यदि उभारना है तो गाय आधारित कम लागत प्राकृतिक खेती को बढ़ावा देना होगा क्यों की इसमें किसान को बाजार से कुछ भी खरीदने की आवश्यकता नहीं है।

REFERENCES

1. कुमार महेंद्र, भंगरा रंजीत, श्री वासत्व अर्चना - प्राकृतिक खेती बिना कर्ज, बिना जहर, पृ. संख्या, 5 – 8
2. पालेकर सुभाष: प्राकृतिक खेती का आधार देशी गाय, पृ.

संख्या, 5

3. देवव्रत आचार्य: कम लागत प्राकृतिक खेती, पृ. संख्या, 64

4. शर्मा अरुण के: जैविक खेती: नई दिशाये, पृ. संख्या, 37

5. खंडेलवाल आर.बी.लाल : कृषि फसलों का उत्पादन

6. सिंह बृजभूषण : कृषि भूगोल

सहायक पत्रिकाएँ –

1. खेती: कृषि विज्ञान द्वारा ग्रामोत्थान की मासिक पत्रिका, अंक - 03, जुलाई 2021
2. उन्नत कृषि: भारत सरकार, कृषि एवं किसान कल्याण मंत्रालय, वर्ष- 54, अंक - 01, अक्टूबर – दिसम्बर 2021
3. इन्टरनेट से प्राप्त जानकारी।



“डॉ. रांगेय राघव के उपन्यासों में चित्रित सामाजिक समस्याएँ”

डॉ. गिरधारी परिहार

जोधपुर.

ABSTRACT:

KEYWORDS:

डॉ. रांगेय राघव हिन्दी साहित्य के उन विशिष्ट और बहुमुखी प्रतिभाशाली रचनाकारों में से एक हैं जो बहुत ही कम उम्र लेकर इस संसार में आए, लेकिन इन्होंने अल्पआयु में ही एक साथ उपन्यासकार कहानीकार, निबंधकार, आलोचक, नाटककार कवि इतिहासवेत्ता तथा रिपोर्ताज, लेखक के रूप में स्वयं को प्रतिस्थापित किया। साथ ही साथ अपने रचनात्मक कौशल से हिन्दी की महान सृजनशीलता के दर्शन करा दिये। उपन्यास जगत में डॉ. रांगेय राघव का व्यक्तित्व विशेष महत्व रखता है, वे असाधारण प्रतिभा एवं श्रम शक्ति के प्रतीक हैं। मानव जीवन में उनकी विशेष आस्था रही है। उनका जीवन हमेशा प्रयोगकर्ता के रूप में रहा है। सत्यन्वेषण, उनके जीवन का मुख्य उद्देश्य रहा है। राजनीति, धर्म, सामान्य जीवन से सम्बन्ध विभिन्न क्षेत्रों में उन्होंने अनेक प्रयोग किये उनकी रचनाएँ उनके असाधारण पुरुषार्थ, दृढ़ मनोबल एवं अनुशासित कार्यप्रणाली का परिणाम हैं।

डॉ. रांगेय राघव के उपन्यासों की दो कोटियाँ हैं, इन्हें हम सामाजिक और समाजवादी कह सकते हैं। समाजवादी अपने मार्क्सवादी दृष्टिकोण से प्रेमचन्द के उपन्यासों की सामाजिक परम्परा में आते हुए भी उन उपन्यासों से अलग हैं। सामाजिक उपन्यासों में सामाजिक उपन्यासों का चित्रण होता है। किन्तु उसे देखने की लेखक की कोई विशिष्ट दृष्टि नहीं होती। वे मनुष्य के प्रति आस्था, प्रेम सहानुभूति एवं जीवन मूल्यों को सामाजिकता के साथ आंकलन करते हैं। वे विसमतामूलक समाज को मानव जाति के विकास में बाधक मानते थे। उनके कथा-संसार में उदात्त चरित्र एवं शिल्प संघटना को क्रान्तिकारी जीवनवृत्त के रूप में चित्रित किया है। रांगेय राघव के उपन्यासों का वर्गीकरण इस प्रकार है:- इसमें सामाजिक उपन्यास, आचालिक उपन्यास, ऐतिहासिक उपन्यास एवं जीवन चारित्रिक उपन्यास। यदि हम सामाजिक उपन्यासों की तरफ एक नजर

डालते हैं तो रांगेय राघव ने कई सामाजिक उपन्यास लिखे हैं जैसे – घरोंदे, उबाल, दायरे, आग की प्यास, बोनो और घायल फूल, कल्पना, बन्दूक और बीन, पतझर, राई और पर्वत, प्रोफेसर, छोटी सी बात, पराया, पापी एवं आखिरी आवाज।

डॉ. रांगेय राघव के उपन्यासों में विविध सामाजिक समस्याओं पर प्रकाश डालने से पहले समाज क्या है? उसे समझना जरूरी है।

समाज शब्द का प्रयोग साधारणतः जन समुदाय के लिए किया जाता है। शब्दकोशों में इसका अर्थ समूह दल, संघ आदि दिया गया है। अधिकतर समाज शास्त्री समाज शब्द का प्रयोग सामाजिक सम्बन्धों की व्यवस्था हेतु करते हैं। रयूटर ने कहा है – “जिस प्रकार जोवन एक वस्तु नहीं है, बल्कि जीवित रहने की प्रक्रिया है उसी तरह समाज एक वस्तु नहीं है अपितु सम्बन्ध स्थापित करने की प्रक्रिया है।”¹

समाज में परिस्थितिवस अनेक परिवर्तन आते रहते हैं जब ये सामाजिक परिवर्तन सामाजिक मूल्यों को तोड़ने लगते हैं, उसी समय सामाजिक समस्या का जन्म होता है। समाज व्यक्ति के समुचित विकास हेतु अस्तित्व में आया है। राबर्ट निसबेट ने सामाजिक समस्या के बारे में लिखा है- “सामाजिक समस्या वह व्यवहार पद्धति है, जिसे समाज का बड़ा भाग एक या एक अनुमोदित व स्वीकृत प्रतिमानों का उल्लंघन मानता है।”²

साहित्य समाज का दर्पण है। साहित्य समाज का ब्यौरा प्रस्तुत करता है। महान साहित्यकार मानव स्वभाव और मनुष्य की स्थिति के बारे में अपनी अन्तर्दृष्टियाँ प्रस्तुत करते हैं। सामाजिक परिवर्तन कथा साहित्य के माध्यम से संभावित है। समाजशास्त्री अवधारणा कोश में सामाजिक समस्या को परिभाषित करते हुए लिखा है – “ऐसी कोई भी अवांछित तथा आपत्तिजनक दशा, स्थिति अथवा व्यवहार, प्रतिमान जो किसी समाज के अधिसंख्यक व्यक्तियों द्वारा असहनीय एवं निन्दनीय माने जाते हैं। तथा जिसके सुधार एवं निदान के लिए सामुहिक क्रिया की आवश्यकता महसूस की जाती है, सामाजिक समस्या

कहलाती है। सामाजिक समस्याएँ व्यवहारों के टूटने भंग होने अथवा विचलन की शक्ति का परिचायक है। अपराध, अपचार, वैश्यावृत्ति, भिक्षावृत्ति, बेरोजगारी आदि सामाजिक समस्याओं के कुछ उदाहरण हैं।³

समाज तीन भागों में विभाजित है – निम्न, मध्य और उच्च। भारत में निम्न और मध्य वर्ग की दयनीय स्थिति है। ये दोनों वर्ग सिसकियों ले-लेकर जी रहा है। उन दोनों वर्ग की आपदाओं का वर्णन प्रेमचंद ने अपने कथा साहित्य में यथार्थ रूप में किया है। युगान्तकारी कथा साहित्य द्वारा भारतीय समाज के कलम के सिपाही प्रेमचन्द ने अनेक मोड़ दिये। इस दृष्टि से डॉ. हजारी प्रसाद द्विवेदी का कथन उल्लेखनीय है—“हिन्दी साहित्य के प्रसिद्ध उपन्यासकार प्रेमचन्द शताब्दियों से पद-दलित और अपमानित कृषकों की आवाज थे। पर्दे में कैद, पद-पद पर लाञ्छित और अपमानित असहाय नारी जाति की महिला के जबर्दस्त वकील थे, और गरीबों बेबसों के प्रचारक थे।”⁴ डॉ. रांगेय राघव प्रेमचंद के बाद दूसरे ऐसे सशक्त लेखक थे, जिन्होंने निम्न मध्यम वर्ग का हाथ थामा था, निम्न मध्यमवर्ग की अनेक समस्याओं का चित्रण किया है। साथ-साथ उच्च समाज की विद्रुपताओं को भी उकेरा है। डॉ. रांगेय राघव के उपन्यासों में निम्नलिखित समस्याओं का चित्रण मिलता है।

सामाजिक उपन्यासों में समाज की अनेक समस्याओं को उठाया गया है और उनके समाधानों की ओर भी संकेत किया गया है। जाति-पाति, अंधविश्वास, किसानों का शोषण, अनमेल विवाह, विधवा समस्या, जातिवादी एवं वर्ग व्यवस्था की समस्या, किसान और मजदूर वर्ग की समस्याएँ आदि का चित्रण प्रखर रूप से किया है।

जातिवाद की समस्या कई हजारों वर्षों से हमारे देश में चल रही है उसके पिछे भारत की पुरानी वर्ण व्यवस्था है। इस समस्या का हल आज तक नहीं निकला आज भी जातिवाद की गन्दगी समाज से नहीं निकली। जिसको दूर करने के लिए कबीर ने 600 वर्ष पहले जहमत उठायी थी, आज भी निम्नवर्ग के लोगों की अपेक्षा होती है। उनका शोषण किया जाता है। गांव में सवर्णों क

मंदिरों में जाना उनके लिए वृजित हैं। कबीर ऐसे लोगों का पक्ष लेकर लड़े थे। उनका मानना है कि समस्त मनुष्य एक ही तत्व से उत्पन्न हुए हैं सबका सर्जनहार एक ही है, फिर ये हिन्दू, ये मुसलमान, ये ब्राह्मण और ये शुद्र ये भेद क्यों?

जैसे :- “एक पवन एक ही पानी एक ही ज्योति संसारा।।

एक ही खाक घड़े सब भांडे एक ही सर्जनहार।।”⁵

डॉ. रांगेय राघव प्रगतिशील उपन्यासकार हैं। इसलिए समाज के विकास में जा बाधा रूप सामाजिक बुराईयों पुरानी रूढियों तथा बाह्य आडंबरों की निंदा करते हैं। उनका मानना है कि इन बुराईयों ने समाज को खोखला बना दिया है। इसके जिम्मेदार वे ‘पराया’ उपन्यास में पूंजीवादी व सामंतवादी प्रवृत्ति को मानते हैं – ‘पराया’ उपन्यास में पूंजीवादी समस्या का यथार्थ चित्रण किया है। धन संग्रह की भावना मनुष्य को इतना स्वार्थी और कठोर बना देती है कि वह अपने सम्पूर्ण मानवीय सम्बन्धों को लात मार देता है। रमेश व ममता के माध्यम से लेखक ने यह प्रमाणित किया है कि धन संग्रह की भावना सत्य, असत्य उचित, अनुचित की सीमा को अस्विकार कर आन्तरिक शान्ति के सागर में तुफान उठा देती है। रमेश मालती के साथ विश्वासघात कर अनेक मित्रों को ठगकर गरीबों के पेट पर लात मार कर करोड़पति हो गया है किन्तु उसके मस्तिष्क में अशान्ति की भावना बढ़ती गई वह मनुष्यत्व भूलकर धन का दास हो गया –“पूंजीवादी समाज में मनुष्य का उत्थान वास्तव में उसका चारित्रिक पतन है। वह जितना ही धन के कारण सम्मान पाता है उतनी ही उसकी आत्मा मरती जाती है। लालच की मिट्टी डालकर वह अपनी आत्मा की लाश को ढकता है ताकि वह चिता ही सड़ती रहे, बाहर बदनू न दे”⁶ धन लोलुप व्यक्तियों का स्वार्थ इतना प्रबल हो जाता है कि वे प्यार, समाज देश आदि को भूल जाते हैं। ममता रमेश को केवल उसको अकिंचनता के कारण ही तुकराकर धनी बैरीस्टर बिहारी लाल की वासना की शिकार हो गयी। लेखक ने पूंजीवादी सभ्यता को

मानवता के लिए अभिशाप माना है और खुलकर निंदा की है "पूँजीवादी सभ्यता गद्दे तकियों पर लेटने वाली वेश्या के समान है जब वह पैसा नहीं रखती तो पत्थरों पर लेटती है।"⁷

'पंतझर' उपन्यास में डॉ. रांगेय राघव ने प्रमुख एवं **जटिल समस्या जातिवाद** को माना है जिसे लेखक ने बड़े कौशल के साथ चित्रित किया है और उसके होने वाले दुष्परिणामों का भी चित्रण किया है। जगन्नाथ और मोहिनी एक दूसरे को चाहकर सामाजिक अवरोधों के कारण भी वैवाहिक सम्बन्ध स्थापित नहीं कर पाते हैं। डाक्टर के पूछने पर जगन्नाथ कहता है – "मैं पहुंच सकता हूँ, डॉक्टर सहाब लेकिन मैं इन समाज के बन्धनों का क्या करूँ? वह मुझे चाहती है, लेकिन मेरे पास आ नहीं सकती। यह समाज हम लोगों को घाँटकर रख रहा है। ऐसा लग रहा है कि जैसे सांस दबी जा रही है।"⁸ इसके माध्यम से लेखक ने जातिवाद के मिथ्याभिमान को स्पष्ट किया है। डॉक्टर हरवंशलाल से कहता है कि मैं आपको एक बात बता दूँ कि हिन्दुस्तान में इनती उँची-नीच होते हुए भी हर जाति का आदमी अपनी जाति को दुसरी जाति से कम नहीं समझता। आप एक धोबिन से ब्याह नहीं कर सकते भले ही आप कायस्थ हो। आपको भंगी भी अपनी लड़की देने को तैयार नहीं होगा इसलिए कि उसकी भी मर्यादा है।⁹ "इस गूढ समस्या का समाधान लेखक ने अर्न्तजातीय विवाह में देखा इसलिए उपन्यास के अन्त में जगन्नाथ व मोहिनी का विवाह कर लौकिक प्रेम का समाधान विवाह से ही किया है। यहा अर्न्तजातीय विवाह कराकर डॉ. रांगेय राघव ने प्रगतिवादी चेतना का उदाहरण दिया है।

"कल्पना" उपन्यास में **आधुनिक नारी की समस्या** का चित्रण है, लेखक ने नीला के माध्यम से जीवन क सार्वभौम प्रश्नों की सफलता की अभिव्यक्ति देकर हमारे सम्बन्धों की वास्तविकता पर नया प्रकाश डाला है। उपन्यास में नीला और डॉक्टर के माध्यम से इस समस्या को अत्यन्त प्रभावोत्पादक ढंग से उठाया है। डॉक्टर समाज के दबाव में आकर नीला से विवाह कर लेता है। किन्तु रागात्मक सम्बन्ध प्रेमिका निर्मला से ही रखता है।

वह अपने पर थोपी पत्नी नीला से कहता है – "मैं कोई पाप नहीं करता निर्मला भी पाप नहीं करती स्त्री-पुरुष प्रेम करने को स्वतंत्र है हमको हमारे समाज ने किस लिए बांधा है? तु मेरे लिए एक अनजान स्त्री हो तुमसे मैं प्रेम नहीं कर सकता वह व्यभिचार होगा।"¹⁰ इससे नीला को अत्यन्त मार्मिक पीड़ा हुई है। नारी ही नारी को अधिक प्रताड़ित करती है यह बात इस उपन्यास से स्पष्ट होती है यदि निर्मला डॉक्टर के प्रेम प्रस्ताव को ठूकरा देती तो नीला का हृदय आहत न होता। नीला एवं वकील की उपस्थिति डॉक्टर और निर्मला के लिए असह्य होती गई। अन्ततः समाज से भयभोत होकर दोनों पात्र मिलकर एक होटल में आत्महत्या कर लेते हैं। आज भी अनेक युवक-युवतियों समाज की रुढ़ियों को तोड़ने में असमर्थ होकर अपनी भावुकता के कारण आत्महत्या कर लेते हैं। लेखक ने अनमेल विवाह के दुष्परिणामों को व्यक्त कर समाज की थोथी मान्यताओं पर गहरा प्रहार किया है।

"काका" उपन्यास में **विधवा समस्या** को चित्रित कर उसका समाधान किया गया है। विधवा समस्या तो समाज में आज भी विद्यमान है। सामंति समाज ने मातृसत्तात्मक परिवार को पितृसत्तात्मक परिवार में बदलकर नारी शोषण की शुरुआत की जो आज भी विद्यमान है। नारी का वैधव्य जीवन भारतीय समाज के लिए अभिशाप है, इन समस्याओं को प्रेमचंद से लेकर आज तक लिखने वाले लेखक इस समस्या का चित्रण करते रहे। डॉ. रांगेय राघव के 'काका' उपन्यास की पात्र कान्ता का जीवन इसी घुटन में व्यतीत हो रहा है। किन्तु यह अधिकांश उपन्यासों की विधवाओं की भांति तपस्विनी न बनकर रामधुन के प्रेम को स्वीकार कर लेती है। तदन्तर सामाजिक बन्धनों को टुकराती हुई रामधुन से कहती है :-

"भले ही यह पाप है पर यही अच्छा। मेरे वैश्या बनने से या चेली बनने से यह पवित्र है, स्त्री हूँ तथा स्त्री जैसा जीवन क्यों न बिताऊँ? अगर धर्म इसे नहीं मानता तो धर्म गलत है। इन लोगों ने धर्म को भी अपने नफे-नुकसान की चीज बना लिया है।"¹¹

लेखक ने तत्कालीन समाज में व्याप्त विधवा समस्या का चित्रण ही नहीं किया बल्कि उस समस्या का हल एवं विद्रोह कैसे कर सकते हैं यह भी बताया।

डॉ. रांगेय राघव ने जातिवाद का विरोध किया था। उपन्यासकार ने देखा स्वर्ण समाज दलितों, मजदूरों, शोषितों का भरसक शोषण करते हैं फलतः दलितों के शोषण का चित्रण उनके लगभग सभी उपन्यासों में मिलता है 'बोने और घायल फूल' उपन्यास में **दलितों की उपेक्षा का यथार्थ चित्रण** मिलता है। उपन्यास में नील बाबू द्वारा हरिजनों के मंदिर में प्रवेश के लिए सत्याग्रह कराया गया। मंदिर में हरिजनों का प्रवेश निषेध था। भारत के संविधान में सबको समान दृष्टि से देखने की बात कही गई है। जातिय धर्म के आधार पर भेदभाव करना गलत है, पर इसके बावजूद जातिगत भेदभाव पनप रहा है और सामाजिक समानता का प्रश्न भी बना हुआ है। "घरौंदा" उपन्यास में जमींदार से भगवती को समाज की जिलाहना और उपेक्षा का शिकार होना पड़ता है। उसे समानाधिकार से वंचित रहना पड़ता है। "आखिरी आवाज" में चमार, भंगी जैसी अछूत कही जाने वाली जातियाँ गर्णित धन्धों से अपना पट भरती है। मरे पशुओं की चाम उतारना, मैला ढोना जैसे निम्न कर्म इनकी आजीविका के साधन हैं। 'कब तक पूकारू' उपन्यास में भी चमार मृत पशुओं की खाल उतारते हैं तो भंगी मैला ढोने का धन्धा करते हैं। "राई और पर्वत" में कटोरी मेहतारानी झाड़ू लगाकर ऊँची जातियों से रोटी प्राप्त करने का कार्य करती है।

'धरती मेरा घर' उपन्यास में लेखक ने **अंधविश्वास** की ओर संकेत किया है—'जमींदार साहब अपने बच्चों के बारे में बताते हैं कि वह फतेहपुरी सीकरी के किसी फकीर की दुआ से पैदा हुआ था।'¹²

"स्त्रीयाँ सनीचर के सनीचर परिक्रमा देती है गाँव की"¹³ 'हूजूर' उपन्यास में ग्रामीण अंधविश्वास से ग्रसित है – 'गांव नरहर' "सदियों से बहती हुई धारा के किनारे खड़े हुए किसी रहस्य के अंधविश्वास के पेड़ के समान है यह रहस्य का अंधविश्वास बनकर पड़ा था। कहा जाता है कि देवता के सामने एक बहुत बड़ा चक्र धूमता रहता है। उसमें अनगिनत मनुष्यों के लेखे-जोखे की चिट्ठियाँ

लटकती रहती है। परन्तु हिन्दूस्तान के लाखों गाँवों के भाग्य की चिट्ठी एक है। वह सैकड़ों बरस से घूम रही है, इस पुराने वृक्ष में अनेक विषैले जीव-जन्तु हैं। मजबूरी है, पंछी इन्ही का भोजन बनने के लिए बार-बार अण्डे देते हैं। बार-बार हाहाकार करते हैं।" इससे स्पष्ट होता है कि शोषित वर्ग भाग्यवाद, निराशावाद एवं अंधविश्वास के चक्र में फंसा हुआ है। इसके लिए पूण्य और पाप की धारणाएँ अंधविश्वास के चारों ओर लिपटी रहती है। इस वर्ग के पुण्य कार्य की सीमा गंगा स्नान, तीर्थ-भ्रमण और देव दर्शन तक ही है सीमित है। अतः धार्मिक अंधविश्वास ही धार्मिक शोषण की समस्या पैदा करता है।

अतः हम निष्कर्ष के तौर पर कह सकते हैं कि डॉ. रांगेय राघव ने अपने उपन्यासों में विभिन्न प्रकार की समस्याओं एवं उनके निराकरण का चित्रण किया है। आर्थिक समस्याएँ, राजनीतिक समस्याएँ, शिक्षा की समस्याएँ आदि का भी चित्रण अपने उपन्यासों में किया है।

लेखक का मानना है कि कितनी ही बड़ी समस्या क्यों न हो उसका सामना डटकर करना चाहिए, उस समस्या का जवाब मह तोड़ देना चाहिए, जिससे समस्या का समाधान किया जा सक। इसके लिए हमें शारीरिक रूप से मजबूत हस्तपुष्ट बनना पड़ेगा, मानसिक रूप से तैयार होना पड़ेगा। अंधविश्वास, गुलामी से दूर जाना पड़ेगा, मंदिरों के बजाय स्कूलों की ओर ज्यादा ध्यान देना होगा तभी आगे चलकर नयी पीढी में कुछ नया संचार होगा, नई भावनाएँ जन्म लेगी।

REFERENCES

1. डॉ. अजमेर काजल, उपन्यासकार राजेन्द्र यादव (समाजशास्त्रीय अध्ययन) पृ.-5
2. डॉ. अजमेर काजल, उपन्यासकार राजेन्द्र यादव (समाजशास्त्रीय अध्ययन) पृ.-15
3. हरिकृष्ण रावत समाजशास्त्र कोश पृ.-152
4. सच्चिदानन्द हीरानन्द वात्स्यायन, साहित्य और समाज के परिवर्तन की प्रक्रिया, पृ.-79
5. हजारी प्रसाद द्विवेदी – 'कबीर', पृ.-17
6. डॉ. रांगेय राघव – 'पराया', राजपाल प्रकाशन, पृ.-90

7. डॉ. रांगेय राघव – 'पराया', राजपाल प्रकाशन, पृ.-90

8. डॉ. रांगेय राघव – 'पतझड़', राजपाल प्रकाशन, पृ.-26

9. डॉ. रांगेय राघव – 'पतझड़', राजपाल प्रकाशन, पृ.-79, 80

10. डॉ. रांगेय राघव – 'कल्पना', राजपाल प्रकाशन, पृ.-40

11. डॉ. रांगेय राघव – 'काका', राजपाल प्रकाशन, पृ.-164

12. डॉ. रांगेय राघव – 'धरती मेरा घर', राजपाल प्रकाशन, पृ.-20

13. डॉ. रांगेय राघव – 'धरती मेरा घर', राजपाल प्रकाशन, पृ.-20

14. डॉ. रांगेय राघव – 'हजूर', आलोक प्रकाशन पृ.-69



दृष्टि-बाधित परीक्षार्थियों के श्रुतिलेखक की समस्या का अध्ययन

मनोज माथुर

शोधार्थी (शिक्षा), कला शिक्षा एवं समाज विज्ञान संकाय, जयनारायण व्यास विश्वविद्यालय, जोधपुर

डॉ. प्रार्थना फोफलिया

शोध-पयवक्षिका, कला शिक्षा एवं समाज विज्ञान संकाय, जयनारायण व्यास विश्वविद्यालय, जोधपुर

ABSTRACT:

दृष्टि-बाधित विद्यार्थियों की दैनिक दिनचर्या में कई प्रकार की समस्याएँ आती हैं। दृष्टि-बाधित विद्यार्थियों के जीवन में कई बार ऐसे अवसर आते हैं जब वे सामान्य विद्यार्थियों से अलग अनुभव के कारण उन घटनाओं को महसूस करते हैं। वर्षा आने की सूचना उन्हें पानी के गिरने को आवाज और गिली मिट्टी की खुशबू से प्राप्त होती है। आग लगने की सूचना गर्मा-आहट से अनुभव करते हैं। दृष्टि बाधित विद्यार्थी दृष्टि बाधित सहायक शिक्षण सामग्री के द्वारा अध्ययन कर जब परीक्षा का सामना करते हैं तब इनके सामने श्रुतिलेखक की उपलब्धता की समस्या आती है। परीक्षा के दौरान मानसिक संतुलन के साथ योग्य श्रुतिलेखक उपलब्ध होना, वास्तव में एक बड़ी चुनौती होती है। परीक्षा के दौरान एक ओर तो पाठ्यक्रम पूर्ण करने की चिन्ता तो दूसरी ओर श्रुतिलेखक की समय पर उपलब्धता की चिन्ता।

परीक्षा का दौरान योग्य, श्रुतिलेखक का चयन कर उसकी समय पर उपलब्धता सम्बन्धी तनाव सदैव बना रहता है। कभी-कभी तो एनवक्त पर ज्ञात होता है कि चयनित होने पर भी श्रुतिलेखक आज परीक्षा भवन में समय पर उपलब्ध होने में असमर्थ है। ऐसी स्थिति में उसके विकल्प का चयन कर परीक्षा भवन में समय पर उसकी उपलब्धता करना काफी चुनौती वाला कार्य होता है। इस अवस्था में दृष्टि बाधित विद्यार्थियों का मानसिक संतुलन बिगड़ जाता है, जिसके फलस्वरूप वे सही प्रकार के प्रश्न पत्र को हल नहीं कर पाते हैं।

इस शोध में शोधकर्ता ने दृष्टि-बाधित विद्यार्थियों के श्रुतिलेखक की समस्या का अध्ययन किया है।

KEYWORDS:

दृष्टि बाधित, श्रुतिलेखक, परीक्षार्थी, उपलब्धता, श्रुतिलेखक सम्बन्धी नियम

सभी माता-पिताओं का यह मानना है कि हमारे बच्चे सदैव शारीरिक, मानसिक, शैक्षिक, सामाजिक और आर्थिक दृष्टि से उच्चतम अवस्था प्राप्त करें। इस कार्य के लिए सभी माता-पिता अपना पूर्ण कर्तव्य निष्ठा के साथ पूर्ण करते हैं। सामान्य दृष्टिकोण वाले बच्चे तो काफी हद तक सफलता प्राप्त कर लेते हैं, परन्तु दृष्टिबाधित बच्चों को काफी चुनौतियों का सामना करना पड़ता है। दृष्टिबाधिता की स्थिति का पता लगने पर माता-पिता एक एक तो मानसिक दृष्टि से लगभग टूट से जाते हैं। मानसिक दृष्टि से टूट चुके माता-पिता के सामने अपने बच्चों को पालना और उन्हें उचित शिक्षा दिलाना एक चुनौती बनकर आता है।

इस मनोस्थिति में ईश्वर को याद करके वे सबसे पहले उनका उचित लालन पालन करना और बाद में उचित संस्कार देकर उचित शिक्षा की व्यवस्था करना। दृष्टि-बाधित विद्यालयों की कमी के कारण माता-पिता को सामान्य बच्चों के साथ सामंजस्य बैठाने के लिए उन्हें मानसिक रूप से सशक्त बनाया जाता है। जब दृष्टि बाधित बच्चे अपनी दैनिक दिनचर्या स्वयं करने लगते हैं, तब माता-पिता उन्हें उच्च शिक्षा हेतु शहरों में उपलब्ध नेत्रहीन शैक्षिक संस्थानों में प्रवेश दिलाते हैं। इन संस्थाओं में रहकर दृष्टि बाधित विद्यार्थी शिक्षा प्राप्त करते हैं।

नेत्रहीन शैक्षिक संस्थाओं शिक्षा के लिए नवीनतम तकनीकी युक्त संसाधन उपयोग में लिए जाते हैं। इस प्रकार के संस्थाओं में शैक्षिक शिक्षा के साथ-साथ व्यवसायिक ज्ञान भी प्रदान किया जाता है। जब पाठ्यक्रम पूर्ण हो जाता है तब उसके मूल्यांकन के लए परीक्षा का सामना करना पड़ता है। जब दृष्टि-बाधित विद्यार्थी परीक्षार्थी बनकर परीक्षा कक्ष में उपस्थित होता है तो सबसे पहले उसे एक श्रुतिलेखक की जरूरत होती है, जो परीक्षा कक्ष में उपस्थित होकर परीक्षा के प्रश्न पत्र को श्रुतिलेखक को पढ़कर सुनाता है, तत्पश्चात् दृष्टि-बाधित विद्यार्थी उन प्रश्नों के संभावित उत्तरों को अपने शब्दों में श्रुतिलेखक को सुनाता है। श्रुतिलेखक दृष्टि-बाधित विद्यार्थी के द्वारा बोले गये वाक्यों को उत्तर पुस्तिका में लिखता है।

दृष्टिबाधित विद्यार्थी जब परीक्षार्थी बनता है तो श्रुतिलेखक की समय पर उपलब्धता सबसे बड़ी चुनौती बनकर उसके सामने प्रस्तुत होती है। प्रतिदिन परीक्षा विभाग चक्र अनुसार श्रुतिलेखक की उपलब्धता की चिन्ता उसकी मानसिक स्थिति को हिलाकर रख देती है। कभी-कभी तो परीक्षा पाठ्यक्रम पूर्ण करने के बजाय उचित श्रुतिलेखक की उचित समय पर उपलब्धता की चिन्ता उसके मानसिक संतुलन को विचलित कर देती है।

दृष्टि-बाधित अथवा दृष्टिहीनता के अमेरिकन फाउण्डेशन फॉर ब्लाईंड (ए.एस.बी. 1961), एनसाइक्लोपीडिया ऑफ स्पेशल एजुकेशन (1997) और चिकित्सकीय परिभाषा के अनुसार जिसकी दृष्टि क्षीणता यदि समुचित सुधारों के बावजूद 20/200 फीट या 6/60 मीटर तक रह जाती है, वह दृष्टि-बाधित समझा जाता है। सामान्य आँख से 20 फीट की दूरी तक ही देख सकते हैं।

विभिन्न प्रकार की सामान्य परीक्षाएँ, प्रतियोगिताएँ वाली परीक्षाओं में अनेको सुविधाजनक छूट प्रदान की जाती है। पूर्ण जानकारियों के अभाव में दृष्टि-बाधित परीक्षार्थी उन सुविधाओं को उचित उपयोग नहीं कर पाता है।

शोध समस्या का चयन –

दृष्टि-बाधित परीक्षार्थियों के सम्बन्धित साहित्य का अवलोकन करने से शोधकर्ता को वास्तविक स्थिति का पता चला। वर्तमान समय की अत्यधिक मांग महसूस की गई कि दृष्टि-बाधित परीक्षार्थियों को किन-किन समस्याओं से जूझना पड़ता है। इसी को ध्यान में रखते हुए शोधकर्ता ने परीक्षा केन्द्रों का भ्रमण कर परीक्षा समय अवधि के दौरान दृष्टि-बाधित परीक्षार्थी का अवलोकन कर यह महसूस किया कि श्रुतिलेखक की समस्या किस हद तक उन्हें झकझोरती है। इसी को ध्यान में रखकर शोधकर्ता ने "दृष्टि-बाधित परीक्षार्थियों के श्रुतिलेखक की समस्या का अध्ययन" शोधसमस्या का चयन किया।

शोध के उद्देश्य –

शोधकर्ता ने प्रस्तुत शोध में "दृष्टि-बाधित परीक्षार्थियों के श्रुतिलेखक की समस्या का अध्ययन" करना उद्देश्य का निर्धारण किया।

शोध अध्ययन क्षेत्र –

शोधकर्ता ने प्रस्तुत शोध में जोधपुर स्थित नेत्रहीन विकास संस्थान, कमला नेहरु नगर, जोधपुर में रह रहे दृष्टि-बाधित विद्यार्थियों/परीक्षार्थियों का चयन किया गया। यह विद्यार्थी विभिन्न परीक्षाओं में सम्मिलित होते हैं।

शोध अध्ययन विधि –

शोधकर्ता ने प्रस्तुत शोध में साक्षात्कार, अवलोकन विधि का उपयोग कर शोधकार्य को सुचारु गति प्रदान कर सूचनाएँ एकत्रित की।

आंकड़े एकत्रित करने के स्रोत –

शोधकर्ता ने प्रस्तुत शोध में परीक्षा कक्ष में अवलोकन के बाद प्रत्यक्ष रूप से दृष्टि-बाधित विद्यार्थियों/परीक्षार्थियों से रूबरू होकर अपने व्यक्तिगत अनुभव के द्वारा प्रश्नावली का निर्माण कर उनका साक्षात्कार कर सूचनाएँ एवं उनके अनुभव ज्ञात किये।

शोधकर्ता ने प्राथमिक स्रोतों में उनसे साक्षात्कार द्वारा, समूह चर्चा, अवलोकन कर अनुभवों के द्वारा विभिन्न सूचनाएँ प्राप्त की।

शोधकर्ता ने विभिन्न परीक्षाओं, प्रतियोगी परीक्षाओं में उपलब्ध नियमों की जानकारी प्राप्त की। शोधकर्ता ने विभिन्न परीक्षा केन्द्रों पर उपस्थित होकर प्रत्यक्ष या अप्रत्यक्ष रूप से दृष्टि-बाधित परीक्षार्थियों की मनोस्थिति की जानकारी प्राप्त की।

शोधकर्ता ने विभिन्न श्रुतिलेखकों से साक्षात्कार कर उनके प्रत्यक्ष अनुभवों की जानकारी प्राप्त की।

शोधकर्ता ने लगभग 80 दृष्टि-बाधित परीक्षार्थियों से इस प्रश्नावली को पूर्ण करवाया। शोधकर्ता ने प्रस्तुत शोध में निम्नलिखित प्रश्नावली का उपयोग किया जिसका परिणाम निम्न प्रकार रहा –

उपयोग में ली गई प्रश्नावली –

क्र.सं.	प्रश्नों का विवरण	दृष्टि-बाधित परीक्षार्थियों की प्रतिक्रिया			प्रतिशत
		हाँ	नहीं	आवर्ती	
1	सभी बोर्ड/विश्वविद्यालयों में निर्धारित नियमों की जानकारी है।	80	-	80	100
2	परीक्षा केन्द्र द्वारा श्रुतिलेखक उपलब्ध करवाया जाता है।	-	80	80	100
3.	परीक्षा में श्रुतिलेखक की उपलब्धता स्वयं करनी पड़ती है।	80	-	80	100
4.	श्रुतिलेखक की समय पर उपस्थित होने का तनाव रहता है।	80	-	80	100
5.	श्रुतिलेखक के कारण परीक्षा परिणाम पर असर पड़ता है	80	-	80	100

विश्लेषणात्मक विवरण –

शोधकर्ता ने प्रस्तुत शोध के लिए प्रश्नावली का उपयोग कर दृष्टि-बाधित परीक्षार्थियों से वार्ता कर उनके विचार प्राप्त किये। शोधकर्ता ने विभिन्न परीक्षा केन्द्रों पर जाकर दृष्टि-बाधित परीक्षार्थियों की परीक्षा भवन में मनोस्थिति का अवलोकन किया। इस मनोस्थिति में प्रश्नों को हल करवाना वास्तव में बड़ी चुनौतीपूर्ण कार्य है। प्रस्तुत शोध के द्वारा निम्नलिखित निष्कर्ष प्राप्त किये –

- सभी दृष्टि-बाधित परीक्षार्थियों को सभी बोर्ड और विश्वविद्यालयों तथा विभिन्न प्रतियोगी परीक्षाओं में दृष्टि-बाधित परीक्षार्थियों के श्रुतिलेखक सम्बन्धी नियमों की पूर्ण जानकारी प्राप्त है।
- किसी भी परीक्षा में किसी भी दृष्टि-बाधित परीक्षार्थी को परीक्षा केन्द्र पर परीक्षा केन्द्र द्वारा श्रुतिलेखक उपलब्ध नहीं करवाया जाता है।
- सभी प्रकार की परीक्षाओं में दृष्टि-बाधित परीक्षार्थियों को श्रुतिलेखक की उपलब्धता स्वयं को निश्चित करनी पड़ती है। परीक्षा पूर्व निर्धारित नियमों के अनुसार केन्द्राधीक्षक से श्रुतिलेखक बौने की स्वीकृति/अनुमति प्राप्त करने के लिए कई चक्कर काटने पड़ते हैं।
- सभी परीक्षार्थियों में श्रुतिलेखक की समय पर परीक्षा केन्द्र पर उपस्थित होने का तनाव सदैव बना रहता है। दृष्टि-बाधित परीक्षार्थियों को पाठ्यक्रम पूर्ण करने के बजाय, यह चिन्ता रहती है कि चयनित श्रुतिलेखक समय पर उपलब्ध होगा कि नहीं।
- दृष्टि-बाधित परीक्षार्थियों को श्रुतिलेखक उपलब्धता सम्बन्धी तनाव के कारण उनके परीक्षा परिणाम पर असर पड़ता है।

दृष्टि-बाधित परीक्षार्थियों के लिए प्रयास –

दृष्टि-बाधित परीक्षार्थियों के लिए कई बोर्ड/विश्वविद्यालय ने यथासंभव मदद करने की कोशिश की है। कई बोर्ड एवं विश्वविद्यालयों ने निर्धारित नियमों में आंशिक संशोधन कर उन्हें राहत देने की कोशिश की।

शोधकर्ता के सुझाव –

- सभी बोर्ड एवं विश्वविद्यालय के द्वारा आयोजित परीक्षाओं के प्रवेश पत्र पर स्पष्ट नियम अंकित होने चाहिए।
- सभी नियमों की स्पष्ट जानकारी दृष्टि-बाधित परीक्षार्थियों को उपलब्ध करवाई जानी चाहिए।
- सभी परीक्षाओं में केन्द्राधीक्षक द्वारा परीक्षा केन्द्र पर ही श्रुतिलेखक उपलब्ध करवाना चाहिए।
- सभी दृष्टि-बाधित परीक्षार्थियों की परीक्षा समय अवधि में मनोवैज्ञानिक शिक्षक द्वारा काउंसलिंग करवानी चाहिए।

REFERENCES

- डॉ. सुदीप कुमार दुबे – नेत्रहीन विद्यार्थियों के आवागमन की समस्याएँ।
- आनन्द दईया – विकलांग विद्यार्थियों को उच्च शिक्षा में होने वाली समस्याओं का समीक्षात्मक अध्ययन।
- वीरेन्द्र कुमार पाण्डेय – दृष्टि-बाधित व्यक्तियों की सामाजिक समस्याओं एवं उनके कल्याण के लिए संचालित योजनाओं का अध्ययन।
- विभिन्न विश्वविद्यालयों के परीक्षा सम्बन्धित नियम।
- विभिन्न प्रतियोगी परीक्षाओं के सम्बन्धित नियम।



प्राचीन भारतीय शिक्षा में पर्यावरण संचेतना : एक विश्लेषणात्मक अध्ययन

डॉ. महबूब खान मुगल

सहायक आचार्य-भूगोल, सहायक आचार्य-भूगोल, राजकीय महाविद्यालय, सूरतगढ़

डॉ. सुरेंद्र चौधरी

सहायक प्रोफेसर, एसएनडीबी सरकार, पी.जी. कॉलेज, नोहर

ABSTRACT:

मानव अपनी उत्पत्ति के समय से ही प्रकृति का उपभोग अपने आवास, भोजन, वस्त्र जैसी मूलभूत आवश्यकताओं के लिए करता आया है किन्तु मानवीय आवश्यकताओं की प्रकृति, सभ्यता के विकास के साथ-साथ बदलती गई एवं इसी के साथ प्रकृति का अविवेकपूर्ण विदोहन भी प्रारम्भ हुआ। मानवीय जीवन व सभ्यता के विकास के इतिहास का 90 फीसदी भाग मानव-प्रकृति के मध्य संतुलित सम्बन्धों वाला रहा है मात्र 10 फीसदी भाग जिसे हम आधुनिक युग के नाम से जानते हैं मानव-प्रकृति के असंतुलित सम्बन्ध का भयावह स्वरूप प्रकट करता है। मानव की वर्तमान आधुनिक क्रियाओं का इतिहास महज 200 से 300 वर्ष ही प्राचीन है और इन 200-300 वर्षों की अपनी अंधी विकास की दौड़ में मानव ने प्रकृति व प्राकृतिक संसाधनों का इस हद तक दोहन किया है कि ना केवल मानव जाति अपितु सम्पूर्ण जीव जगत के लिये अस्तित्वमूलक प्रजन् ला खड़ा किया है, अन्य प्राणी जगत बुद्धिहीनता के कारण इस विकट परिस्थिति के समाधान में अपना योगदान भी नहीं दे सकते हैं और इस विकराल समस्या का स्रोत भी मानव है तो निदान भी केवल मात्र बुद्धिपाली मानव के पास ही है।

आधुनिक आर्थिक मानव ने न केवल प्रकृति अपितु सभ्यता और संस्कृति जैसे वाक्याणुओं को भी विक्षुब्ध किया है। सभ्यता का अर्थ जहाँ सभी के प्रति सम्य व पिष्टाचार व्यवहार का आचरण है वहीं संस्कृति का अर्थ सुधारना या सुन्दर बनाना है किन्तु वर्तमान समय में सभ्यता व संस्कृति को विकास के नजरिये से देखा जाता है और इनके अर्थ भी आर्थिक रूप से विकसित सभ्यता व संस्कृति के रूप में व्यक्त किये जाने लगे हैं। इसी का परिणाम है कि आज के आधुनिक मानव के समक्ष पर्यावरण प्रदूषण, पर्यावरण अवनयन, कार्बन उत्सर्जन, रेडियोधर्मी प्रदूषण, ओजोन विनाश, अति वृष्टि, बाढ़, अकाल, हिमखण्डों का पिघलना, अम्लीय वर्षा, भूमंडलीय ऊष्मन जैसी भयावह पर्यावरणीय आपदाएँ विकराल रूप लिए खड़ी हैं।

आज की पर्यावरणीय परिस्थितियों व समस्याओं का पूर्वाभास हमें हमारी भारतीय संस्कृति के प्राचीन स्वरूप में दिखाई देता है। भारतीय संस्कृति व परम्पराओं में प्रकृति व पर्यावरण के विभिन्न तत्वों को संतुलित रखने व उनका संवर्द्धन करने के अनेक उपचार अपनाए गये हैं। आज की वर्तमान दशाओं में उन प्राचीन परम्पराओं व उपचारों को अपनाते ही महती आवश्यकता है ताकि प्राचीन भारतीय परम्परा के मूल सिद्धान्त- शर्वे भवन्तु सुखिनः श में छिपे उद्देश्य की पूर्ति संभव हो सके।

शोध उद्देश्य- प्रस्तुत लघु शोध का प्रमुख उद्देश्य वर्तमान पर्यावरणीय समस्याओं एवं उनकी भयाव्यता को उजागर करना है तथा वर्तमान पीढ़ी में पर्यावरण के प्रति संचेतना व जागरूकता का बढ़ाना है। साथ ही भारतीय संस्कृति में पर्यावरण संरक्षण व संवर्द्धन के उपचारों को उजागर कर भारतीय परम्पराओं की समृद्धता को बताना है और उन परम्परागत मूल्यों में आज की प्रकृति की समस्याओं का समाधान ढूँढना भी है। प्रस्तुत शोध का एक उद्देश्य पाश्चात्य सभ्यता के लालुपतापूर्ण व स्वार्थयुक्त धारणाओं व भारतीय संस्कृति की उत्तम धारणाओं व मूल्यों में अंतर स्पष्ट करना है। इस लघु शोध से भावी शोधकर्ताओं एवं अध्ययनकर्ताओं में भारतीय संस्कृति की सुदृढ़ व मूल्यवान धारणाओं की समझ को बढ़ाना है।

KEYWORDS:

संस्कृति, पर्यावरण, प्रकृति, सौहार्द, यज्ञ, औद्योगिकीकरण, स्वस्वार्थ, विदोहन, भूमण्डलीय ऊष्मन, अम्ल वर्षा, परम्परायें, लालुपतापूर्ण, स्वार्थसिद्धि, तिरोहित, अकाल, अतिवृष्टि, अल्पवृष्टि ।

शोध-प्रविधि- संदर्भ पुस्तकों, लेखों व लघु शोध पत्रों का अध्ययन एवं विश्लेषण, समाचार पत्र-पत्रिकायें, पर्यावरण विशेषज्ञों एवं धार्मिक ज्ञाताओं से मौखिक संवाद आदि।

परिचय-

आधुनिक आर्थिक जगत के समक्ष सबसे बड़ी चुनौती है पर्यावरण अवनयन एवं प्राकृतिक संसाधनों की गुणवत्ता में ह्रास। मानव ने अपने आर्थिक विकास के लिये अपने पर्यावरण का अविवेकपूर्ण विदोहन पिछले 300 वर्षों में इस स्तर तक किया है कि वर्तमान पर्यावरणीय दशाएँ मानव सहित सम्पूर्ण प्राणी जगत के सुखमय जीवन की दृष्टि से उपयुक्त नहीं रही हैं और इस स्थिति का आभास भारतीय ऋषि-मुनियों को पूर्व में ही हो गया था। भारतीय ऋषियों-मुनियों एवं धर्मग्रन्थों में समस्त पृथ्वी व सृष्टि के लिये मंगल कामना की अवधारणा जगह-जगह स्पष्ट की गई है। भारतीय संस्कृति जीव मात्र के कल्याण की धारणा में विश्वास करती है और जीव की इस संकल्पना में जीव-जन्तु, पेड़-पौधे व मानव सभी प्राणी सम्मिलित हैं। भारत की प्राचीन संस्कृति व साहित्य में प्रकृति को सम्बद्ध कर उसे पवित्रता प्रदान की है। धरती को मातृवत् मानकर जल, हवा, पर्वत, वृक्ष, नदियों, जीवों, जलाशयों और नदियों को पूजनीय मानकर उनकी सुरक्षा व संरक्षण की पूर्ण व्यवस्था की गई है।

हमारे पुरातन साहित्य में पर्यावरण की महत्ता को विभिन्न प्रकरणों एवं तरीकों से समझाने का प्रयास हुआ है। ज्ञान व नीतिपरक पंचतंत्र की कहानियों में तथा बौद्ध जातक कथाओं में अनेक प्रसंग वन व वन्य जीवों से संबंधित हैं। वर्तमान भौतिकवाद व अर्थ प्रधान समाज की चकाचौंध में हमारी पुरातन परम्पराएँ इतनी तिरोहित हो गई हैं कि वृक्ष पूजा, जीव पूजा जैसी हमारी प्राचीन प्रकृति उपासक आस्थाएँ एवं भावनाएँ मात्र प्रतीकात्मक रह गई हैं। हमारी सभ्यता भी विकास की इस अंधी दौड़ में पाश्चात्य सभ्यता के रंग में इस हद तक ढल गई है कि प्रकृति व प्रकृति के विभिन्न अंग हमारे लिये उपभोग की वस्तु बनते जा रहे हैं। अगर यही स्थिति आने वाले 50 वर्षों तक ओर बनी रही

तो हम अपनी प्राचीन संस्कृति की मर्यादाओं व भावनाओं को सदा के लिये खो चुके हों। आज का स्वार्थी मानव प्रकृति का दोहन केवल अपनी स्वार्थसिद्धि के लिये कर रहा है। वन व आरण्यक भूमि को खेती व अन्य उपयोग के लिये नष्ट किये जा रहा है। गोचर भूमि, बावड़ी, झील, तालाब स्थल, नदियों के बहाव क्षेत्रों पर अतिक्रमण दिन-ब-दिन बढ़ते जा रहे हैं। प्राकृतिक आवासों के नष्ट हो जाने से ना जाने कितने ही वन्य जीवों की जातियाँ विलुप्त हो चुकी हैं। प्रकृति के अतिक्रमण व अतिदोहन से प्रकृति का विकराल रूप विभिन्न आपदाओं के रूप किसी से अज्ञात नहीं है। बाढ़, सूखा, अकाल, अतिवृष्टि, अल्पवृष्टि, अतिताप, अति तूफान व आँधियों की आवृत्तियाँ प्रकृति के रोद्र रूप की ओर ही इशारा करती हैं। ये सभी प्राकृतिक आपदाएँ चेतावनी हैं आज के आर्थिक मानव सभ्यता के विनाश की, यदि समय रहते हमने प्रकृति के इस तिरस्कार को बंद कर प्रकृति अनुकूल जीवन शैली को नहीं अपनाया तो वो दिन दूर नहीं जब आज की विकसित सभ्यता इतिहास के पन्नों में दर्ज हो जायेगी।

पश्चिमी सभ्यता की धारणा, “हम पिया हमारा बैल पिया अब कुऊं टूट पड़े” अर्थात् अपना और अपने आश्रितों के भले का सोचकर प्रकृति को विध्वंस कर देना। प्रकृति के विध्वंस में हम भी बराबर के भागीदार तब बन गये जब हम उदासीन रहकर ये सब देख रहे थे। अब हमें अपने पर्यावरण को शुद्ध रखने के लिये कारगर कदम उठाने ही पड़ेंगे, इसके लिये ना केवल सरकारी तंत्र, राजनीतिक तंत्र और मानव समुदायों की जवाबदेही निश्चित करने की नितांत आवश्यकता है, अन्यथा पर्यावरण असन्तुलन सारे राष्ट्र को अस्त-व्यस्त कर देगा और हम अपनी पारम्परिक प्राकृतिक अच्छाईयों को खो देंगे जिस पर हम आज तक गर्व करते आये हैं।

1. पर्यावरण व संस्कृति का अर्थ व परिभाषा :- पर्यावरण शब्द 'परि' एवं 'आ' उपसर्गपूर्वक 'वृत्' धातु से ल्युट(अन्) के योग से निर्मित है जिसका अर्थ है— **“परितः आवरणम्”** अर्थात् प्राणी जगत को आवरित किये हुये वे सभी परिस्थितियाँ जिनकी वजह से पृथ्वी पर प्राणी मात्र का जीवन संभव हुआ है। संस्कृति शब्द **सम्** उपसर्ग कृ धातु तिन प्रत्यय के योग से बना है जिसका अर्थ है— सुधारणा, सुन्दर बनाना, पूर्ण बनाना।

यजुर्वेद में पर्यावरण को निम्न रूप में परिभाषित किया गया है—**“परितः आवरणोऽतित पर्यावरणम्”** अर्थात् जो चारों ओर से आवृत करता है वही पर्यावरण है।

2. भारतीय संस्कृति में पर्यावरणीय संवेतना — भारतीय संस्कृति में पर्यावरण को दैवतुल्य स्थान प्राप्त है। भारतीय संस्कृति के संस्कृत साहित्य की एक कहावत के अनुसार **—“प्रक्षालानादि पश्य दूरादस्पर्शनं वरम्।”** अर्थात् पैर को कीचड़ में सानकर धोने से अच्छा है कि पैर में कीचड़ लगने ही ना दिया जाए। संस्कृत साहित्य का उक्त वाक्य प्रकृति में प्रदूषण के निषेध की ओर संकेत करता है। प्राचीन भारतीय चिन्तन की दृष्टि से पंचतत्वों में असंतुलन की स्थिति को ही पर्यावरण प्रदूषण की संज्ञा दी गई है। तुलसीदास जी लिखते हैं कि — **“क्षिति, जल, पावक, गगन, समीरा। पंचरहित यह अधम शरीरा।”** अर्थात् जो ब्रह्माण्ड में है वही शरीर में है, ब्रह्माण्ड बिगड़ेगा तो शरीर भी बिगड़ेगा। वेदों में कहा गया है कि, **“पूर्णभद्रः पूर्णमिदं पूर्णात्पूर्णमुदच्यते। पूर्णस्य पूर्णमादाय पूर्णमेवावशिष्यते।।”** अर्थात् हम प्रकृति से उतना ही ग्रहण करें जितना हमारे लिये आवश्यक हो तथा प्रकृति की पूर्णता को क्षति ना पहुँचे। **“ऊँ षोः शान्तिरतिरक्षशान्तिः, पृथ्वी शान्तिः रापः शान्तिरोषधयः शान्तिः। वनस्पियः शान्तिर्विश्वदेवाःशान्ति ब्रह्मशान्तिः सर्वशान्तिः शान्तिरेवशान्तिः सा मा शान्तिरेवथ।। ऊँ शान्तिः शान्तिः शान्तिः।।”** यजुर्वेद के उक्त श्लोक में प्रकृति व प्रकृति के सभी तत्वों की शान्ति व संतुलन की कामना भारतीय संस्कृति के प्रकृति प्रेम व संरक्षण की अवधारणा को उजागर करती है।

वेदों में इस बात का उल्लेख मिलता है कि मानव शुद्ध हवा में श्वास ले, शुद्ध जलपान करे, शुद्ध अन्न—फल का भोजन करे, शुद्ध मिट्टि में खेले कूदें और कृषि करे तब ही वेद प्रतिपादित उसकी आयु भशतम् जीवम् शरदः शतम् उसकी विज्ञान के अनुसार प्रकृति सदैव तीन रूपों में विद्यमान रहती है— कण, प्रतिकण और विकरण। वेदों में भी प्रकृति के तीन मूल वर्ग— **त्रयःकृत्यति भूवनस्यरेता** स्वीकार किये गये हैं।

1.1. भारतीय संस्कृति और वायु प्रदूषण व संरक्षण :- प्राचीन भारतीय संस्कृति में वायु को प्रकृति अर्थात् भगवान(भूमि, गगन, वायु, नीर) के महत्वपूर्ण घटक के रूप में स्वीकार कर वरुण भगवान के रूप में देवता माना गया है। वायु के जीवनदायी स्वरूप को ऋग्वेद के दसवें मंडल के 186 वें सूक्त में इस प्रकार वर्णित किया गया है — **“वात आ वातु भेषजम्, स नो जीवात्वे कृषि।”** अर्थात् हे! वायु तुम स्वास्थ्य की ओषधि बनकर बहो। तुम्हीं हमारी जीवन—जड़ी हो आदि। **“शं न दूषिपरो अभिवातु वात।”** अर्थात् वायु एक स्थान पर बद्ध न होकर दूषिपर अर्थात् स्वच्छ रूप से दारें—बाएँ प्रवाहित होता रहे। **“ना मेध्यं प्रक्षिपेदनाौ”** अर्थात् आग में किसी अपवित्र वस्तु प्रक्षेपण नहीं करना चाहिए, अन्यथा वह वातारवण को भी दूषित कर देता है। इसलिए कहा गया है कि शुद्ध वायु है तो लम्बी आयु है।

प्राचीन धर्मग्रन्थों एवं साहित्यों में यज्ञ को पर्यावरण व वायु शुद्धि की एक प्रभावी युक्ति के रूप में स्वीकार किया गया है। यजुर्वेद एवं पुराणों में यज्ञ की महत्ता को वेदों से अधिक माना गया है। प्राचीन ग्रन्थों में यज्ञ का तात्पर्य त्याग, समर्पण व शुभ कर्म के रूप में लिया गया है जिसके माध्यम से मूल्यवान पोष्टिक व सुगंधित द्रव्यों को अग्नि व वायु के माध्यम से समस्त संसार के कल्याण के लिए वितरित किया जाता है। इस धारणा में पोष्टिक व सुगंधित द्रव्यों के माध्यम से वायु को प्रदूषण मुक्त करने का मूल विचार ही समाहित है।

1.2. भारतीय संस्कृति और जल प्रदूषण व संरक्षण :- प्राचीन भारतीय संस्कृति जल में जल को सृष्टि के जीवन रूप में स्वीकार किया गया है। ऋग्वेद में जल को विश्व का जन्म देने वाली श्रेष्ठ माँ कहा गया है— **“मातृतामा विश्वस्य स्थातुर्जगतो जानित्री।”** वृहदारण्यक उपनिषद् में कहा गया है — **“इमा आपः सर्वेषां भूतानां मध्वासामर्षीसर्वाणि भूतानि मधु।”** जल समस्त प्राणियों के लिए अमृत है। जल में अग्नि का वास होता है अतः नग्न स्नान वर्जित किया गया था। भारतीय धर्म ग्रन्थों में नदियों को पवित्र व देवीतुल्य स्वीकार किया गया है। मनुस्मृति पानी में मल—मूत्र व पीक त्याग को तथा अपवित्र वस्तुओं, रक्त व विष को जल में डालना निषिद्ध किया गया है। गंगाजल को सभी संस्कारों में महत्वपूर्ण स्थान दिया गया है। **“कूप्रापुष्कारिणी वनानाम् चक्रुः क्रियास्तत्र च धर्मकाना”** जैसे—कुआँ, बावड़ी, तालाब, झीलों व झालरों का निर्माण राजा का प्रथम व पुण्य कर्तव्य माना गया है। **“जगताय प्रतप्तानां जलराशि च वाच्छतम्”** अर्थात् गर्मी व प्यास से व्याकुल जगत के लिये जल अनिवार्य है। जल को अशुद्ध करना धार्मिक व सामाजिक निषिद्ध कृत्य माना गया और इसके लिये दण्ड का प्रावधान भी था। निस्तान दंपतियों के मोक्ष के लिए पेड़ लगाने या कुआँ या बावड़ी बनवाने की मान्यता थी।

1.3. भारतीय संस्कृति और मृदा(पृथ्वी) प्रदूषण व संरक्षण :- भारतीय संस्कृति सभ्यता के उदय काल से ही पृथ्वी को माता का दर्जा देती आई है। यद्यपि वर्तमान आर्थिक विकास की दौड़ में मातृवत् व्यवहार की इस धारणा में कमी अवश्य आई है। ऋग्वेद के पृथ्वी सूक्त में कहा गया है — **“माता भूमिः पुत्रोऽहं पृथिव्याः”**। प्राचीन भारतीय संस्कृति में भूमि को माँ का दर्जा दिया गया है किन्तु वर्तमान भौतिकवादी युग में भूमि की छाती चिरकर अपशिष्ट व प्रदूषक भरे जा रहे हैं। प्राचीन इतिहास भी इस बात की गवाही देता है कि जिन सभ्यताओं ने भूमि को बंजर होने दिया वे सभी आज इतिहास के पन्नों में दर्ज हैं। अथर्ववेद के पृथ्वी सूक्त के कुल 63 मंत्रों में पृथ्वी की महत्ता को उजागर करना भूमि के महत्व को उजागर करता है। यजुर्वेद में भूमि की अशुद्धि को निषिद्ध करते हुये उल्लेख है कि — **“प्रथिवी मातर्मा हिंसीर्मा अहं त्वाम्”** — यजुर्वेद 10/23 अर्थात् हे! माता तुम हमारा पालन पोषण उत्तम रीति से करती हो। हम कभी भी तुम्हारी हिंसा(दुरुपयोग) न करें। प्राचीन धर्मग्रन्थ भूमि को धन्य—धान्य देने वाली माँ के रूप में स्वीकार करने का उल्लेख अनेक जगहों पर करते हुए धरती माँ को नमन किया गया है।

आज के ऐश्वर्य प्रधान भौतिकवादी युग में हमारी प्राचीन मान्यताएँ व परम्पराएँ तिरोहित हो गई हैं। हमारी गौरवमयी संस्कृति परिवर्तन के इस दौर में ना तो पूर्णतः पाश्चात्य हो पाई है और ना ही पूर्ण भारतीय रह पाई है अपितु यह एक ऐसे संक्रमण के दौर में है जिसमें हम हमारी प्राचीन मान्यताएँ व परम्पराओं को खोते जा रहे हैं। हमारी प्राचीन परम्पराएँ वर्तमान भौतिकवादी युग में मात्र प्रतीकात्मक स्वरूप में ही शेष बची हैं जबकि हमारी प्राचीन संस्कृति प्रकृति को प्राणी मात्र के लिये सर्वाधिक फलदायी मानती रही है, इसलिए प्रकृति को सुखदायी जीवन का अभिन्न अंग मानते हुये उसकी पूजा—अर्चना की व्यवस्थाएँ हमारे प्राचीन धर्म शास्त्रों में की गई है।

1.4. भारतीय संस्कृति व वन संरक्षण :- पेड़ों को भारतीय संस्कृति के संरक्षक व पोषक माना गया है। ऋषि—मनीषियों ने अपने आश्रम व गुरुकुलों में एवं उसके आस—पास प्रकृति को पल्लवित—पुष्पित किया है। प्रकृति के विभिन्न अंगों यथा भूमि, जल, वायु, वृक्ष, जीव—जन्तुओं को पूज्यनीय मानकर उनकी सुरक्षा, संरक्षण व संवर्द्धन की व्यवस्थाएँ की गई है। वृक्ष को भगवान नीलकण्ठ का रूप माना गया है जो वायुमंडल की विषैली गैसों को पीकर अमृतमयी ऑक्सीजन गैस हमारे लिए दान स्वरूप बाहर छोड़ते हैं अतः वृक्षों को सींचना भगवान शिव को जल अर्पण के समान माना गया है। हमें भी वृक्षों के त्याग की भावना से त्याग का गुण अपनाने का संदेश वेदों में जगह—जगह दिया गया है। तुलसी को विष्णु प्रिया, केला को ब्रह्मस्पति और संतान दाता, पीपल को ब्रह्मा, विष्णु व महेश के वास के रूप में पूजा जाता है। कार्तिक मास की शुक्ल की नवमी को आँवला नवमी भी कहते हैं। हरियाली अमावश्या व बंसत पंचमी आदि पर्वों पर वृत् उतपास के साथ वनस्पति पूजा होती है। हमारी संस्कृति में भक्त व भगवान को चन्दन के तिलक की परम्परा हमें प्रकृति प्रिय संस्कृति बनाती है। पीपल और बरगद के पेड़ों को ब्राह्मण का दर्जा दिया गया है और इन्हें काटना ब्रह्म हत्या माना गया है।

वैशाख में पीपल पूजा, कार्तिक में आँवला व तुलसी पूजा, मिगसर मास में कदम्ब की वृक्ष को पूजने की परम्परा भारतीय संस्कृति में सदियों से चली आ रही है। विल्व वृक्ष के पत्तियों भगवान शिव को अर्पित की जाती हैं, कदम्ब के फूलों से भगवान विष्णु की पूजा की जाती है। ब्रह्माण्ड पुराण में लक्ष्मी को कदम्ब वनवासिनी, पद्म पुराण में भगवान विष्णु को पीपल वृक्ष, भगवान शिव को वटवृक्ष और ब्रह्मा जी को पलास वृक्ष के रूप में प्रतिष्ठापित किया गया है। भारतीय प्राचीन धर्मग्रन्थों में पेड़ों के लिये उचित स्थान की भी व्यवस्थाएँ की गई थी जैसे— नीम का पेड़ गाँव की चौपाल पर और पीपल का पेड़ गाँव के बाहर जलाशयों के निकट लगाने की परम्परा सदियों पुरानी है। वृक्षों व जीवों के पूजने की परम्परा भारत में सिन्धु घाटी सभ्यता से ही प्रचलित है। सिन्धु घाटी सभ्यता के अवशेषों में इस बात के स्पष्ट प्रमाण हमें प्राप्त हुये हैं। भारतीय संस्कृति में वृक्षों के संरक्षण की भी उचित व्यवस्था रही है, जैसे— वैसाख महिने में भारतीय नारियों द्वारा पीपल के वृक्ष को सींचना, गोचर भूमि(किसी धार्मिक स्थल से संलग्न पशुचारण भूमि), डोली(किसी मठ या मंदिर के पुजारी को दी गई व्यक्तिगत वन भूमि) और ओरण(देव स्थान से जुड़ा संरक्षित स्थान) आदि की परम्पराएँ वृक्षों के संरक्षण के ही उदाहरण हैं।

वैदिक साहित्य में वनों की महत्ता को उजागर करते हुये लिखा है कि — **“ततः शिव कुसुमित बालपादपः छायाफलादयर्थं वृक्षमाश्रयते जनः।”** अर्थात् वृक्ष सदासिव होते हैं अतः फल एवं छाया के लिये लोगों द्वारा लगाये जाते हैं। महाभारत के भीष्म पर्व में लिखा है कि — सर्वकाम फलाः वृक्षाः। मत्स्यपुराण में कहा गया है कि—**“दसकूपसमावापी दसवापीसमाह्वः दसहृदसमः पुत्रो दसपुत्रोसमो दुमः।”** अर्थात् दस कुओं के समान पुण्य एक पोखर बनाने में, दस पोखरों का पुण्य एक तालाब बनाने में, दस तालाब बनाने का पुण्य एक पुत्र से और दस पुत्रों के समान पुण्य एक वृक्ष सींचने से होता है। विष्णु पुराण में **“एक वृक्ष सींचने का पुण्य सौ पुत्रों से भी अधिक”** माना गया है। धार्मिक व सामाजिक संस्कार के स्थलों पर त्रिवेणी(पीपल, बरगद, नीम), पंचवटी(नीम, पीपल, बरगद, जामुन, आँवला) तथा हरिशंकर(बरगद, पीपल, पाकड़) के वृक्षों को सींचना, शमशान, सराय व धार्मिक महत्व के स्थानों पर छायादार व फलदार पेड़ लगाने की परम्परा भारतीय संस्कृति में प्राचीन काल से रही है।

रामायण में काण्ड, महाभारत में पर्व और श्रीमद्भागवत में स्कन्ध शब्दों का प्रयोग हुआ है जिनका अर्थ क्रमशः तना, पोर और प्रधान शाखा से है। रामायण काल में भगवान श्रीराम का वनवास, लंका में अशोक वाटिका में माता सीता का ठहराव वृक्ष संरक्षण के उदाहरण की हैं। भगवान श्रीराम ने दण्डकारण्य, इन्द्र ने नन्दनवन, कृष्ण ने वृंदावन, सौनाकादि ऋषियों ने नेमिशारण्य वन तथा पाण्डवों ने खाण्डक वनों को सींचित कर समाज में वन संरक्षण व संवर्द्धन का संदेश दिया। भारतीय ज्योतिष शास्त्र में भी राशि के अनुसार भिन्न-भिन्न पेड़ों की पूजा की महत्ता दर्शायी गई है, जैसे – मेष व वृश्चिक राशि के लिये खैर के पेड़, वृषभ व तुला राशि के लिये गुलर का पेड़, कर्क राशि के लिये पलाश, सिंह राशि के लिये आक, धनु व मीन राशि के लिये पीपल, आदि पेड़ों को पूजनीय बताया गया है। भारतीय संस्कृति में विभिन्न उत्सवों, त्योहारों व सांस्कृतिक परम्पराओं में भी विभिन्न पेड़ों की पूजा-अराधना करना हमारी संस्कृति का हिस्सा रहा है।

1.5. भारतीय संस्कृति और वन्य जीव संरक्षण :- वन्य जीव-जन्तु भी प्राचीन भारतीय संस्कृति में शुद्ध व संतुलित पर्यावरण का अभिन्न अंग माने गये हैं। प्रकृति के अन्य पक्षों की तरह जीव-जन्तुओं को भी पूजनीय माने गये हैं। भारतीय संस्कृति में दस अवतारों में से चार अवतार पशुओं व जन्तुओं से संबद्ध हैं जैसे- मत्स्य अवतार, वराह अवतार, कच्छप अवतार तथा नृसिंह अवतार। भारतीय संस्कृति में भगवान गणेश, भगवान हनुमान व नागपूजा तथा हंस, मूसक(बूहा), शेषनाग, नन्दी(बैल) आदि को विभिन्न देवी-देवताओं के साथ संबद्ध कर इनके पूजनीय स्वरूप को उजागर किया गया है। भगवान गणेश गजराज(हाथी), भगवान हनुमान वानर(बंदर) के संरक्षण के प्रतीक हैं। गरुड़ को भगवान विष्णु का वाहन माना गया गरुड़ पक्षी के नाम से गरुड़ पुराण की रचना इसके संरक्षण की व्यवस्था है। रामायण में जटायु पक्षी को अपने योगदान के लिए पूजनीय माना गया है। इस प्रकार भारतीय प्राचीन धर्म ग्रन्थों में विभिन्न पालतू व वन्य जीवों को विभिन्न देवी-देवताओं से सम्बन्ध कर उनके संरक्षण की व्यवस्थाएँ की गई हैं। गोपाष्टमी, बछ्बारास के पर्व, गोवर्द्धन पूजा की व्यवस्थाएँ गौ वंश की सुरक्षा व संरक्षण के लिए की गई थी। कृषि फसलों को नुकसान पहुँचाने वाले चूहों का आहार करने वाले साँपों के प्रति श्रद्धा प्रकटीकरण नाग पक्षी व गोगानवमी के पर्व मनाये जाने की परम्परा आदिकाल से चली आ रही है। शनिवार के दिन कीड़ी नगरो(चींटियों के आवास) को सींचने की प्रथा उन चींटियों की सुरक्षा की व्यवस्था है जो हानिकारक उदई व बर का नियन्त्रण करती हैं और नई मिट्टी के निर्माण में सहायक होती हैं। मृत जीवों को पर्यावरण से हटाकर पर्यावरण को शुद्ध रखने में सहयोगी कौओं के प्रति श्रद्धा स्वरूप श्राद्ध पक्ष में उनको भोजन खिलाने की परम्परा है। विवाह के समय तोरण में पक्षियों की आकृतियाँ बनाई जाती हैं। भोजन से पहले एक रोटी(पाँच ग्रास) चींटी, कौआ, कुत्ते, गाय आदि के लिए निकालकर खिलाने की व्यवस्था इन जीवों के संरक्षण का प्रतीक है। संसार में पर्यावरण संरक्षण का प्रथम राजकीय प्रयास ईसा पूर्व तीसरी शताब्दी में सम्राट अशोक ने वन्य जीव-जन्तुओं के शिकार पर प्रतिबंध लगाकर किया जो आज भी सम्राट अशोक के शिलालेखों में उकेरित है।

वैदिक काल से आज तक भारतीय संस्कृति की विशिष्ट विशेषतायें स्पष्ट दृष्टिगोचर होती हैं। ब्राह्मण ग्रन्थों में “**मा हिंस्यात् सर्वभूतानी**” अर्थात् किसी भी जीव को मत मारो यह आदेश था। यजुर्वेद में भी उद्घोषित हुआ है कि “**अग्न्या यजमानस्य पशून्पाहि**” अर्थात् हे मानव पशुओं को मारने की बजाय उनकी रक्षा करो, अतः हम वैदिक काल से ही सहिष्णुता, उदारता, सामाजिक संस्कृति, अहिंसा आदि सिद्धान्तों को अपनाकर अनेकता में एकता को लिये हुये हैं और राजनीतिक, सामाजिक, आर्थिक, सांस्कृतिक संतुलन बनाये हुए हैं।

निष्कर्ष – भारतीय संस्कृति और पर्यावरणीय संरक्षण शीर्षक से प्रस्तुत इस लघु शोध के अंतर्गत वर्तमान भौतिकवादी मानव सभ्यता के स्वार्थपरक आर्थिक कार्यों द्वारा प्रकृति में हुये विनाश को इंगित करते हुये प्राचीन भारतीय संस्कृति में प्रकृति के विभिन्न तत्वों व पक्षों की महत्ता को उजागर करते हुए उनकी सुरक्षा व संरक्षण की विभिन्न व्यवस्थाओं का उल्लेख किया गया है तथा भारतीय संस्कृति के प्रकृति सौहार्द स्वरूप को उजागर करने का प्रयास किया गया है। भारतीय मूल्य एवं परम्पराएँ सभ्यता के आदि काल से ही “**वसुदेव कुटुम्बकम्**” और “**सादा जीवन उच्च विचार**” की रही हैं। इन दो वक्तव्यों में भारतीय संस्कृति की पृथ्वी पर प्रकृति व प्राणी मात्र के लिये कल्याण की भावना निहित है किन्तु वर्तमान विश्व की अंधी विकास की दौड़ में भारतीय संस्कृति की ये धारणाएँ व परम्परायें क्षीण होती प्रतीत हो रही हैं जो ना केवल भारत देश अपितु सम्पूर्ण विश्व के लिए एक खतरे की घंटी हैं। राष्ट्रपिता महात्मा गाँधी ने भी कहा था कि – “**प्रकृति सभी जीवों का भरण-पोषण करती है किन्तु एक भी लालची की तृष्णा को शांत करने में अक्षम है।**” सन् 2000 में अर्थचार्टर कमीशन के सम्मेलन में पर्यावरण संरक्षण के 22 सूत्र चयनित किये गये जिनका उल्लेख पहले से **अथर्ववेद** में उपलब्ध है। सम्मेलन के आखिरी दिन अथर्ववेद के **पृथ्वीसूक्त** की चर्चा की गई यह तथ्य भारतीय

संस्कृति के गौरवमयी विचारधारा को प्रतिपादित करने के लिये पर्याप्त है। अतः निष्कर्षतः कहा जा सकता है कि वर्तमान पर्यावरणीय समस्याओं का समाधान वैदिक संस्कृति की परम्पराओं में निहित है अतः अब इस वक्तव्य को चरितार्थ करने का समय आ चुका है- “**वेदों की ओर लौटो**” अर्थात् “**प्रकृति की ओर वापिस चलो!**”

REFERENCES

1. व्यास, हरिश्चन्द्र : असंतुलित पर्यावरण और विश्व, आदर्श प्रकाशन मंदिर, बीकानेर, 2016.
2. चौधरी, मृदुला : प्राचीन भारत में पर्यावरण(एक ऐतिहासिक अध्ययन गुप्तकाल में पूर्व मध्य युग), गयाघाट वाराणसी, पृष्ठ-1.
3. श्रीवास्तव, उर्मिला : महाकवि कालीदास की शकुन्तला और पर्यावरण(आलेख), पृष्ठ-335.
4. गुलाटी, रमेश : प्राकृतिक संसाधन एवं पर्यावरण, प्रियंका पब्लिशिंग हाऊस, जयपुर, 2014.
5. तिवारी, पिंकी : संस्कृत साहित्य में पर्यावरण चेतना के संदर्भ में आधुनिक कवि डॉ. राधेश्याम गंगवार के साहित्य का विवेचन(आलेख) 2016, पृष्ठ-86-88.
6. ऋग्वेद, 1/90/6-8, यजुर्वेद, 13/27-29.
7. मनुस्मृति, 4/56.
8. गौतम, रामहेत, संस्कृत साहित्य और पर्यावरण सुधार(आलेख), 2014, पृष्ठ-21-24.
9. खण्डूडी, वीरराघव : संस्कृत साहित्य में पर्यावरण(आलेख), राजकीय स्नातक महाविद्यालय, उत्तरकाशी, 2017, पृष्ठ-157-160.
10. सिंह, रेनु : वैदिक साहित्य में पर्यावरण चेतना(आलेख), गोरखपुर, 2015, पृष्ठ-4-6.
11. कुर्रें, मनीष कुमार : भारतीय संस्कृति में पर्यावरण संचेतना(आलेख), 2020, अंक-156.
12. बंसल, राजीव : भारतीय संस्कृति और पर्यावरण संरक्षण(आलेख), पर्यावरण भारत, 2021.
13. कुमार, सतीश : भारतीय संस्कृति और पर्यावरण(आलेख), पर्यावरण विमर्श.
14. बहुगुणा, आर. : भारतीय संस्कृति और पर्यावरण(आलेख), इंडिया वाटर पोर्टल.
15. माहेश्वरी, शंकरलाल : भारतीय संस्कृति में पर्यावरण संरक्षण(आलेख).



पर्यटन पर कोविड-19 महामारी का प्रभाव : जोधपुर के संदर्भ में संक्षिप्त अध्ययन

मनीषा

शोधार्थी, भूगोल विभाग, जय नारायण व्यास विश्वविद्यालय, जोधपुर, राजस्थान

अर्जुन लाल मीणा

सहायक आचार्य, भूगोल विभाग, जयनारायण व्यास विश्वविद्यालय, जोधपुर, राजस्थान

ABSTRACT:

कोविड-19 महामारी का फैलाव संपूर्ण मानव जाति के लिए घातक सिद्ध हुआ। लॉकडाउन की विभिन्न विधियों के दौरान वैश्विक अर्थव्यवस्था में भारी गिरावट आने से आर्थिक क्षति, चिकित्सा व स्वास्थ्य व्यवस्थाओं पर पड़े अत्यधिक दबाव के कारण स्वास्थ्य सुविधाएं समय रहते उपलब्ध ना होने से जनहानि हुई। यातायात व पर्यटन उद्योग को कोविड-19 महामारी के फैलाव ने सर्वाधिक क्षतिग्रस्त किया। इस प्रकार मानव के सभी पक्षों जैसे:- शारीरिक, मानसिक, आर्थिक, पारिवारिक व सामाजिक पक्षों हेतु अभिशाप सिद्ध हुआ। पर सिक्के का दूसरा पहलू भी है जैसे मानव जाति पर कोविड-19 महामारी का प्रभाव नकारात्मक रहा, वहीं प्रकृति व पर्यावरण के लिए इस महामारी का प्रभाव सकारात्मक रहा। पर्यावरण प्रदूषण में कमी तथा लॉकडाउन की अवधि में प्राकृतिक संसाधनों के अंधाधुंध दोहन पर सीमित समय के लिए लगे प्रतिबंध आदि इस महामारी के पर्यावरण सकारात्मक प्रभाव रहे। किंतु क्षतिग्रस्त हुए पर्यटन उद्योग के पुनरुत्थान की आवश्यकता है तथा सतत विकास के अंतर्गत सतत पर्यटन के विकास पर ध्यान केंद्रित करने की आवश्यकता है। प्रस्तुत शोध पत्र में जोधपुर जिले के संदर्भ में पर्यटन पर कोविड-19 महामारी का प्रभाव का संक्षिप्त अध्ययन किया गया है। सतत पर्यटन के दृष्टिकोण से देखा जाए तो जोधपुर जिले में विकास की काफी संभावनाएं विद्यमान हैं।

KEYWORDS:

कोविड-19 महामारी, नकारात्मक प्रभाव, पुनरुत्थान, पर्यावरण संरक्षण व संवर्धन, सतत पर्यटन

परिचय—

जोधपुर हमेशा से विश्व मानचित्र पर एक पर्यटन केंद्र के रूप में प्रसिद्ध है। जोधपुर का गौरवशाली शानदार राठौड़ वंशीय इतिहास हो या प्राकृतिक सौंदर्य लिए हुए मरुस्थलीय स्थलाकृतियाँ हो या हस्तनिर्मित उत्कृष्ट वस्तुएं हो या स्वादिष्ट व्यंजन और रंग-बिरंगी संस्कृति हो शाही शादियों के आयोजन हेतु व फिल्मों की शूटिंग हेतु उपयुक्त लोकेशन हो, जोधपुर सर्वाधिक लोकप्रिय स्थान है। पश्चिमी राजस्थान का सबसे बड़ा जिला है अतः यह प्रशासनिक महत्व भी रखता है।

अध्ययन क्षेत्र :-

प्रस्तुत शोध पत्र में अध्ययन हेतु जोधपुर जिले का चुनाव किया गया है। जोधपुर राजस्थान राज्य का दूसरा सबसे बड़ा जिला है। राव जोधा ने 12 मई 1459 में आधुनिक जोधपुर की स्थापना की। जोधपुर जिले का अक्षांशीय विस्तार 26°00' N से 27°37' N तथा देशांतरीय विस्तार 72°55' E से 73°52' E है। समुद्र तल से जोधपुर की ऊँचाई 230 मीटर है। जोधपुर जिला पर्यटन की दृष्टि से समृद्ध है। यह थार रेगिस्तान के बीच में अपने ढेरों शानदार महलों, दुर्गों, मंदिरों, उद्यानों हेतु सुप्रसिद्ध है। जोधपुर

को किलो का शहर, मरुस्थल का प्रवेश द्वार, आफताब-ए-शहर, सूर्य नगरी, ब्लू सिटी, जोधाणा, मारवाड़ आदि अन्य नामों से भी जाना जाता है। जिले की भौगोलिक स्थिति, समृद्ध संस्कृति, गौरवपूर्ण इतिहास व स्थापत्य कला आदि देसी व विदेशी पर्यटकों के आकर्षण का केंद्र है। विगत कुछ दशकों से जिले में विभिन्न आयामों जैसे:-परिवहन सुविधाओं, आवास सुविधाओं, जलपान सुविधाओं, बैंकिंग इंटरनेट सुविधाओं आदि का उचित विकास हुआ है जो पर्यटन को बढ़ावा देने में अत्यधिक उपयोगी है। जोधपुर जिले में पर्यटन के विकास की संभावनाएं विद्यमान हैं परंतु कोविड-19 महामारी ने पर्यटन उद्योग को भारी क्षति पहुंचाई है।

जोधपुर जिले के मुख्य दर्शनीय स्थल:-

मेहरानगढ़ दुर्ग

इस आलीशान किले की स्थापना 1459 में जोधपुर के तात्कालिक शासक राव जोधा द्वारा की गई। यह एक गिरी दुर्ग है। दुर्ग के भीतर मोती महल, फूल महल, शीश महल, सिलेह खाना, दौलत खाना, चामुंडा माता का मंदिर दर्शनीय है।

जसवंत थड़ा

जोधपुर के महाराजा जसवंत सिंह द्वितीय की स्मृति में 1899 में सफेद संगमरमर से बना यह शाही स्मारकों का समूह है। यहां मारवाड़ के शासकों की वंशावली के बारे में संपूर्ण जानकारी प्राप्त होती है।

उम्मेद भवन पैलेस

जोधपुर के पूर्व महाराजा उम्मेद सिंह ने अकाल पीड़ित प्रजा को काम देने के उद्देश्य से इस पैलेस का निर्माण करवाया। छितर के पत्थरों से बने होने के कारण इसे छितर पैलेस कहा जाता है।

मंडोर

जोधपुर से 8 किलोमीटर दूर उद्यानों के बीच स्थित यह एक मनभावन भ्रमण स्थल है। मारवाड़ की प्राचीन राजधानी रहे मंडोर में जोधपुर के पूर्व शासकों के स्मारक हैं।

कायलाना झील

यह एक प्राकृतिक झील है। जोधपुर निवासियों का लोकप्रिय पिकनिक स्थल भी है। कायलाना झील का पानी पेयजल के रूप में इस्तेमाल किया जाता है।

बालसमंद झील

बालसमंद झील का निर्माण 1159 में किया गया। झील के किनारे खड़ा भव्य ग्रीष्मकालीन महल सुंदर भविष्य गिरा हुआ है।

गिरदी कोट व सदर बाजार

शहर के बीच स्थित छोटी-छोटी दुकानों वाली पतली गलियों में रंग-बिरंगा बाजार जो हस्तशिल्प की विस्तृत किस्मों की वस्तुओं के लिए विश्व विख्यात है।

महामंदिर

महा मंदिर का निर्माण 1812 में किया गया। यह 84 नक्काशीदार खंभों के कारण प्रसिद्ध है।

जोधपुर के आसपास के प्रमुख पर्यटन स्थल

ओसियाँ

ओसियाँ में सच्चाई माता का मंदिर, भगवान महावीर का मंदिर और सूर्य मंदिर आदि स्थित हैं। यहां डेजर्ट सफारी भी की जाती है।

धवा

धवा में वन्य प्राणी उद्यान है। जहां भारतीय हिरण स्वेच्छा से विचरण करते हुए देखे जा सकते हैं। धवा गांव की जोधपुर से दूरी लगभग 45 किलोमीटर है।

फलौदी-खींचन

फलौदी कलात्मक हवेलियों एवं मंदिरों के लिए मशहूर है। जोधपुर से इसकी दूरी 135 किलोमीटर है। फलौदी के पास छोटे से गांव खींचन में प्रत्येक वर्ष कुरजां पक्षी हजारों किलोमीटर दूर यात्रा कर सर्दियों में यहां आते हैं। यह क्षेत्र इको टूरिज्म के लिए बहुत ही उपयुक्त है।

परिकल्पना:-

1. कोविड-19 महामारी ने जोधपुर जिले में पर्यटन उद्योग को हानि पहुंचाई है।
2. सतत पर्यटन के विकास की आवश्यकता है।

अध्ययन सामग्री व अध्ययन विधि:-

प्रस्तुत शोध पत्र में द्वितीयक आंकड़ों का प्रयोग किया गया है। द्वितीयक आंकड़ों का संकलन डायरी, पत्र-पत्रिकाओं, समाचार पत्र, पर्यटन विभाग राजस्थान और विभिन्न वेबसाइट व पुस्तकों के माध्यम से किया गया है। इस अध्ययन की प्रकृति विवरणात्मक है।

परिणाम व चर्चा:-

राजस्थान पर्यटन विभाग के वार्षिक प्रतिवेदन से आंकड़े प्राप्त किए गए हैं। वर्ष 2018 से 2022 में जोधपुर में आए कुल पर्यटकों की संख्या के आंकड़े लिए गए हैं।

सारणी 1: जोधपुर में आए पर्यटकों की संख्या 2018 से 2021

वर्ष	देशी पर्यटकों की संख्या (लाख में)	विदेशी पर्यटकों की संख्या (लाख में)	कुल पर्यटकों की संख्या (लाख में)
2018	10.82	1.71	12.53
2019	10.80	1.60	12.4
2020	3.47	0.48	3.95
2021	7.58	0.03	7.61

स्रोत :- <https://www.tourism.rajasthan.gov.in>

आंकड़ों के विश्लेषण से ज्ञात होता है कि वर्ष 2018 और 2019 में पर्यटकों का आगमन काफी अच्छी संख्या में रहा। लेकिन वर्ष 2020 के प्रारंभ में ही कोविड-19 का फैलाव शुरू हो गया इस कारण सरकार ने बीमारी के नियंत्रण हेतु लोग डाउन किया और इन विभिन्न लोग डाउन की अवधि में नॉन एसेंशियल गतिविधियां बंद रहेगी जिसमें पर्यटन उद्योग भी सम्मिलित है यही कारण है कि वर्ष 2019 में कुल पर्यटकों की संख्या घटकर 3.95 रह गई।

पर्यटकों की संख्या में यह भारी गिरावट रही वर्ष 2021 में देखा जाए तो कोविड-19 महामारी पर कुछ नियंत्रण लगा तथा अन्य गतिविधियां सुचारू रूप से चलने लगी। जिस कारण से पर्यटकों के आगमन में भी वृद्धि हुई। वर्ष 2021 में 7.61 लाख पर्यटक को का आगमन जोधपुर में हुआ।

निष्कर्ष:-

यह कहना गलत नहीं होगा कि कोविड-19 महामारी ने विश्व को कुछ समय के लिए रोक दिया था। वैश्विक अर्थव्यवस्था, सामाजिक गतिविधियां, मनोरंजन-पर्यटन आदि को भारी नुकसान हुआ। इस हानि से जोधपुर का पर्यटन उद्योग भी अछूता नहीं रहा, इसे भी भारी नुकसान हुआ। परंतु प्रकृति एवं पर्यावरण के लिए कोविड-19 महामारी का फैलाव सकारात्मक रहा जैसे:- प्रदूषण का कम होना, अंधाधुन हो रहे प्राकृतिक संसाधनों का दोहन पर रोक, नदियों का साफ हो जाना आदि पर यह सकारात्मक परिणाम कुछ समय के लिए ही रहे। वर्तमान में इस बीमारी पर नियंत्रण हुआ है तथा विभिन्न गतिविधियां सुचारू रूप से चलने लगी है। लेकिन अब समय आ गया है कि हम सतत पर्यटन के विकास की ओर ध्यान दें। सतत पर्यटन के अंतर्गत पर्यटन का विकास इस प्रकार से किया जाता है जिससे पर्यावरण को कम से कम क्षति पहुंचे अर्थात् पर्यावरण को संरक्षित और सुरक्षित करते हुए पर्यटन का विकास करना ही सतत पर्यटन है। सतत पर्यटन पर्यटन के विकास और पर्यावरण संरक्षण के बीच संतुलन की बात करता है।

REFERENCES

1. <https://ecotourism-org.translate.google>
2. <https://hindi.news18.com/new/rajasthan/jaipur-new-eco-tourism-policy-approved-tourism-and-employment-opportunities-will-increase-3651204>
3. ignited.in/I/a/293301
4. <https://www.rajas.in/rajasthan/tourism/eco/sites>
5. <https://forest.rajasthan.gov.in>
6. <https://hindi.nativeplanet.com/jodhpur>
7. <https://zeenews.india.com/hindi/india/rajasthan/jaipur/new-eco-tourism-policy-2021-in-rajasthan-know-how-tourism-industry-will-get-a-boost-from-this/937930>
8. शर्मा प्रो. एच एस, राजस्थान का भूगोल, पंचशील प्रकाशन, जयपुर
9. सक्सेना डॉ. हरि मोहन, राजस्थान का भूगोल, हिंदी ग्रंथ अकादमी, जयपुर



भारतीय विदेश नीति और चीन-पाक गठजोड़ एक चुनौती

मोहित कुमार

शोधार्थी, राजनीति विज्ञान विभाग, जय नारायण व्यास विश्वविद्यालय, जोधपुर, राजस्थान

डॉ. चुनाराम सुथार

सह आचार्य, राजनीति विज्ञान विभाग, राजकीय कन्या महाविद्यालय, मगरा पूंजला, जोधपुर

ABSTRACT:

आजादी के बाद से ही भारतीय विदेश नीति के समक्ष कई चुनौतियाँ रही हैं। भारत को आजादी के साथ विभाजन की विभीषिका भी झेलनी पड़ी थी। विभाजन के बाद भी पाकिस्तान के शासकों ने भारत के साथ सहयोग की बजाय संघर्ष की नीति अपनायी हुई है। पाकिस्तान सदैव ही कश्मीर मुद्दे का अन्तर्राष्ट्रीयकरण करने का प्रयास करके भारत के खिलाफ दुष्प्रचार करता आया है। भारत से प्रत्यक्ष रूप से युद्ध में जीत न पाने के कारण ही पाकिस्तान ने भारत के खिलाफ 'जेहाद' के नाम पर आतंकवाद को अपनी राज्य नीति का अंग बना रखा है। भारत विरोधी नीति के तहत ही पाकिस्तान पहले संयुक्त राज्य अमेरिका का पिछलग्गू बना रहा और वर्तमान में चीन का पिछलग्गू बना हुआ है। चीन भी अपनी विस्तारवादी नीति और वैश्विक वर्चस्व की महत्वाकांक्षा में भारत को अपना प्रतिरोधी मानता है। चीन व पाकिस्तान के साथ भारत के सीमा-विवाद भी हैं। दोनों देशों ने भारत विरोधी अपने सांझा हितों के लिए एक गठजोड़ बना रखा है इसके अलावा चीन द्वारा संचालित चीन-पाकिस्तान आर्थिक गलियारा परियोजना (सीपैक) पाकिस्तान अधिकृत कश्मीर से गुजरती है जो कि भारत की सम्प्रभुता के लिए चुनौती है। सीपैक परियोजना चीन के काश्गर प्रांत को पाकिस्तान के ग्वादर बन्दरगाह तक जोड़ती है तथा ग्वादर बन्दरगाह तक आसान पहुँच बनाती है। व्यापारिक व सामरिक रूप से महत्वपूर्ण इस ग्वादर बन्दरगाह को विकसित कर चीन हिन्द महासागर में अपनी सैन्य शक्ति मजबूत करना चाहता है। यह चीन की भारत को सामुद्रिक रूप से घेरने की 'स्ट्रिंग ऑफ पर्स' (मोतियों की माला) का ही अंग है। जहाँ पाकिस्तान चीन के साथ गठजोड़ को भारत के खिलाफ अपने लिए सुरक्षा कवच मानता है वहीं चीन भी भारत के बढ़ते वैश्विक प्रभाव को सीमित करने के लिए पाकिस्तान के साथ सामरिक सहयोग करता आया है। चीन जहाँ एक तरफ पाकिस्तान की कश्मीर नीति का समर्थन करता है वहीं दूसरी तरफ आतंकवाद के विषय पर विभिन्न अन्तर्राष्ट्रीय मंचों पर पाकिस्तान का बचाव करता आया है। भारतीय विदेश नीति के समक्ष चीन-पाक गठजोड़ एक चुनौती साबित हो रहा है।

KEYWORDS:

विदेश नीति, चीन-पाक गठजोड़, आतंकवाद, सीपैक, चुनौती।

परिचय

15 अगस्त 1947 को भारत ब्रिटिश शासन की गुलामी से आजाद हुआ था परन्तु भारत को आजादी के साथ पाकिस्तान के रूप में विभाजन की विभीषिका भी झेलनी पड़ी थी। साम्राज्यिक और धार्मिक उन्माद की जिस भावना के कारण पाकिस्तान का निर्माण हुआ था उसने भारत और पाकिस्तान के बीच विरोध और तनाव की एक ऐसी सीमा रेखा खींच दी थी जिसने आज तक दोनों देशों के आपसी सम्बन्धों को स्थिर नहीं बनने दिया। विभाजन के बाद भी पाकिस्तान के शासकों ने भारत के साथ सहयोग की बजाय संघर्ष की नीति अपनायी हुई है। भारत विरोधी नीति के कारण ही पाकिस्तान ने भारत के साथ विकास की सकारात्मक प्रतिस्पर्धा की बजाय विरोध की नकारात्मक प्रतिस्पर्धा को ही अपनी विदेश नीति का अहम अंग बनाया। इसी प्रकार चीन भी भारत के साथ सीमा सम्बन्धी विवादों को आपसी वार्तालाप की बजाय अपनी सैन्य शक्ति के जरिए सुलझाने का प्रयास करता रहा है। चीन अपनी विस्तारवादी नीति और वैश्विक वर्चस्व की महत्वाकांक्षा में भारत को अपना प्रतिरोधी मानता है। अपने भू-राजनीतिक हितों के परिपक्व में चीन के द्वारा पाकिस्तान को भारत विरोधी गतिविधियों में सहायता दी जाती रही है। एक तरफ चीन के लिए पाकिस्तान मध्य-पूर्व के देशों और हिन्द महासागर से लेकर फारस व भूमध्य सागर तक सीधी पहुँच बनाने का माध्यम है वहीं दूसरी तरफ पाकिस्तान के लिए चीन आर्थिक व सैन्य सुविधा प्रदान करने वाला प्रमुख मित्र देश है। अपने इन्हीं हितों की पूर्ति के लिए दोनों देश 'सदाबहार मित्रता' वाले देश बने हुए हैं।¹

चीन-पाकिस्तान गठजोड़

चीन और पाकिस्तान दोनों ही भारत के पड़ोसी देश हैं तथा दोनों ही देशों के साथ भारत लम्बी सीमा सांझा करता है। भारत, पाकिस्तान के साथ लगभग 3323 किलोमीटर सीमा रेखा सांझा करता है जो 'रेडक्लिफ लाइन' नाम से जानी जाती है। इसी प्रकार भारत व चीन के बीच लगभग 3488 किलोमीटर लम्बी सीमा रेखा है जो 'मैकमोहन रेखा' के नाम से जानी जाती है। वर्ष 1914 में ब्रिटिश शासन के अन्तर्गत यह सीमा रेखा निर्धारित की गई थी परन्तु चीन इस सीमा रेखा को ब्रिटीश साम्राज्यवाद के प्रतीक के रूप में देखता है तथा इसे स्वीकार नहीं करता। इसीलिए अरुणाचल प्रदेश से लेकर लद्दाख तक तीन सेक्टरों में बंटी इस लाइन ऑफ कण्ट्रोल (एल.ए.सी.) पर चीन द्वारा भारतीय सीमा क्षेत्र पर अतिक्रमण करने का प्रयास किया जाता रहा है जिससे दोनों देशों के बीच तनाव पैदा हो जाता है। स्पष्ट है कि भारत के चीन और पाकिस्तान के साथ सीमा-विवाद हैं परन्तु पाकिस्तान के साथ भारत की कड़वाहट के बीच दोनों देशों के विभाजन में ही निहित हैं। भारत और पाकिस्तान के बीच विभाजन की पृष्ठभूमि ने ही दोनों देशों के बीच जिन तनावपूर्ण सम्बन्धों की आधारशिला रखी थी वो आज भी विद्यमान हैं। अलग राष्ट्र बनने के बावजूद भी पाकिस्तान की विदेश नीति सदैव भारत विरोधी दुष्प्रचार पर ही आधारित है।²

द्वितीय युद्ध के पश्चात संयुक्त राज्य अमेरिका और सोवियत संघ के बीच चले शीतयुद्ध काल में पाकिस्तान, 1954-55 में अमेरिका के नेतृत्व वाले सैन्य गठबंधनों यथा दक्षिण पूर्व एशिया संधि संगठन (सैण्टो) और मध्य-पूर्व संधि संगठन (सीटो) में शामिल हुआ था जबकि भारत ने अपनी स्वतन्त्र विदेश नीति के आधार पर इन महाशक्तियों की गुटबाजी से दूर रहते हुए 'गुटनिरपेक्षता की नीति' का अनुसरण किया था। एशिया में सोवियत संघ के साम्यवादी विचारधारा के प्रचार-प्रसार को रोकने और अपने भू-राजनीतिक हितों की पूर्ति करने के लिए सं.रा.अमेरिका ने पाकिस्तान को प्रचुर मात्रा में वित्तीय सहायता एवं सैन्य सामग्री उपलब्ध करवायी थी। सं.रा. अमेरिका जैसी महाशक्ति के प्रश्रय से ही पाकिस्तान ने कभी भी भारत के साथ आपसी विवादों को वार्तालाप के माध्यम से सुलझाने की बजाय सैन्य शक्ति के प्रयोग से सुलझाने का प्रयास किया। विभाजन के कुछ माह बाद ही पाकिस्तान ने 22 अक्टूबर 1947 को भारत की कश्मीर रियासत पर कब्जे की नीयत से हमला कर दिया था तथा उसके एक बड़े भाग पर कब्जा कर लिया था जो 'गुटनिरपेक्षता की नीति' (पी.ओ.के.) के नाम से जाना जाता है।³ तभी से पाकिस्तान सदैव ही कश्मीर मुद्दे का अन्तर्राष्ट्रीयकरण करने का प्रयास करके भारत के खिलाफ दुष्प्रचार करता आया है। इसके अलावा पाकिस्तान भारत पर 1965, 1971 और 1999 का कारगिल युद्ध थोप चुका है। भारत से प्रत्यक्ष रूप से युद्ध में जीत न पाने के कारण ही पाकिस्तान ने भारत के खिलाफ 'जेहाद' के नाम पर आतंकवाद को अपनी राज्यनीति का अंग बना रखा है। अपनी भारत विरोधी नीति के तहत पाकिस्तान पहले संयुक्त राज्य अमेरिका का पिछलग्गू बना रहा और वर्तमान में चीन का पिछलग्गू बना हुआ है। आजादी के पहले दशक तक तो भारत और चीन क सम्बन्ध अच्छे बने रहे थे तथा अप्रैल 1954 में दोनों देशों के बीच 'पंचशील' के सिद्धान्तों पर सहमति भी बनी थी परन्तु चीन ने अपनी विस्तारवादी नीति और वर्ष 1959 में भारत द्वारा तिब्बती बौद्ध धर्म गुरु दलाई लामा को राजनीति शरण देने की वजह से 20 अक्टूबर 1962 में भारत पर अचानक आक्रमण कर दिया था तथा भारत के लद्दाख क्षेत्र का लगभग 38000 वर्ग किलोमीटर पर कब्जा कर लिया जो अब अक्साइचीन कहलाता है।⁴ भारत के 1962 के युद्ध में चीन से हारने के बाद पाकिस्तान ने चीन के साथ अपने सम्बन्धों को प्रगाढ़ बनाने के लिए 1963 में चीन के साथ 'चीन-पाकिस्तान भूमि सीमा समझौते' के तहत पाक अधिकृत कश्मीर की लगभग 5180 वर्ग किलोमीटर भूमि चीन को भेंट कर दी थी।⁵ इसके बाद से ही दोनों देश अपने भारत विरोधी सांझा हितों के लिए गठजोड़ के रूप में क्रियाशील हैं।

चीन-पाकिस्तान गठजोड़ की चुनौतियाँ

पाकिस्तान द्वारा भारत विरोधी गतिविधियों के बावजूद भारत पाकिस्तान के साथ हमेशा अच्छे सम्बन्धों की पहल करता आया है परन्तु हर बार पाकिस्तान की तरफ से विश्वासघात किया जाता रहा है। 20-21 फरवरी 1999 को तात्कालिक भारतीय

प्रधानमंत्री अटल बिहारी वाजपेयी ने पाकिस्तान के साथ मधुर सम्बन्धों के लिए न केवल दोनों देशों के बीच 'दिल्ली लाहौर बस' की शुरुआत की थी बल्कि स्वयं बस द्वारा लाहौर गये थे परन्तु जहाँ एक तरफ वाजपेयी पाकिस्तानी प्रधानमंत्री नवाज शरीफ के साथ 'लाहौर घोषणा' पत्र के तहत अच्छे सम्बन्धों की संधि कर रहे थे वहीं पाकिस्तान सेना भारत के द्रास-कारगिल क्षेत्र में घुसपैठ कर रही थी। अपने द्रास-कारगिल क्षेत्र को पाकिस्तानी सेना के कब्जे से मुक्त कराने के लिए ही भारत ने पाक के साथ 1999 का 'कारगिल युद्ध' लड़ा था।⁷ वहीं चीन ने हमेशा कश्मीर मुद्दे पर पाकिस्तान का समर्थन किया है इतना ही नहीं पाकिस्तान के परमाणु एवं मिसाइल विकास कार्यक्रम के संवर्धन के पीछे चीन द्वारा ही गुप्तचर तरीके से परमाणु तकनीक उपलब्ध करवायी जाती रही थी। भारत सदैव ही अन्तर्राष्ट्रीय मंचों पर इस मुद्दे को उठाता रहा था। भारत द्वारा 11 व 13 मई 1998 को किए गए परमाणु परीक्षण 'पोकरण द्वितीय' के मात्र कुछ दिनों के अन्तराल में ही पाकिस्तान के द्वारा 28 व 30 मई 1998 को परमाणु परीक्षणों का किए जाना भारत की इस शंका को पुष्ट करता था।⁸

इसके अलावा चीन द्वारा संचालित **चाइना-पाकिस्तान इकोनोमिक कॉरिडोर प्रोजेक्ट (सीपैक)** भारतीय सम्प्रभुता के लिए चुनौती साबित हो रहा है। चीन द्वारा संचालित सीपैक परियोजना चीन के झिनजियांग प्रांत के काश्गर को पाकिस्तान के ग्वादर बन्दरगाह तक जोड़ने वाली बहुउद्देशीय परियोजना है जिसके तहत परिवहन, ऊर्जा, गैसपाइप लाइन और विशेष आर्थिक क्षेत्र के निर्माण सम्बन्धी आधारभूत कार्य शामिल हैं। लगभग 1153 किलोमीटर लम्बी यह परियोजना चीन को सामरिक रूप से महत्वपूर्ण पाकिस्तान के ग्वादर बन्दरगाह तक जोड़ती है। सीपैक परियोजना चीनी राष्ट्रपति शी जिनपिंग द्वारा वर्ष 2013 में घोषित महत्वाकांक्षी परियोजना 'वन बेल्ट वन रोड' (आबेर) का ही हिस्सा है। पाकिस्तान इस परियोजना का प्रमुख भागीदार देश है।⁹ भारत के लिए सीपैक परियोजना चिंता का विषय इसलिए भी है क्योंकि सीपैक परियोजना का काफी बड़ा हिस्सा पाकिस्तान के कब्जे वाले पाक अधिकृत कश्मीर के गिलगित बाल्टिस्तान से गुजरता है जो कि भारत का ही भाग है। भारत लगातार इस परियोजना का विरोध कर रहा है।

इसके अलावा पाकिस्तान के ग्वादर बन्दरगाह को भी चीन के द्वारा ही विकसित किया जा रहा है। चीन जहाँ सीपैक परियोजना के माध्यम से ग्वादर बन्दरगाह तक आसान व सीधी पहुँच बना लेगा वहीं चीन, पाक अधिकृत कश्मीर के गिलगित बाल्टिस्तान में सीपैक परियोजना में कार्यरत अपने कर्मचारियों की सुरक्षा हेतु अपनी सैन्य उपस्थिति भी बढ़ा रहा है। इसके अलावा ग्वादर बन्दरगाह में व्यापारिक गतिविधियों के नाम पर चीन हिन्द महासागर में अपनी सामरिक स्थिति सुदृढ़ करना चाहता है। चीन की सीपैक परियोजना से उसकी ग्वादर बन्दरगाह तक पहुँच आसान हो जायेगी तथा ग्वादर बन्दरगाह के माध्यम से वह हिन्द महासागर में सैन्य दखल करके सामरिक बढ़त लेने का प्रयास करेगा। हिन्द महासागर में चीन की उपस्थिति भारत की सामुद्रिक सीमा के लिए खतरा पैदा कर सकती है। चीन ग्वादर बन्दरगाह पर अपनी पकड़ के द्वारा अमेरिका की हिन्द महासागर की उपस्थिति का भी प्रतिरोध करना चाहता है।¹⁰

भारत को सामुद्रिक रूप से घेरने की चीन अपनी 'स्ट्रिंग ऑफ पर्ल' (मोतियों की माला) योजना के तहत भी भारत के समक्ष चुनौती पेश कर रहा है। भारत की सामुद्रिक घेराबन्दी के तहत ही चीन ने बांग्लादेश के चिटगॉंग बन्दरगाह, म्यांमार के क्याक्पू बन्दरगाह, श्रीलंका के हबनटोटा बन्दरगाह और मालदीव के फेयधूफिनोहु बन्दरगाह को अपना ठिकाना बना चुका है और पाकिस्तान का ग्वादर बन्दरगाह भारत को सामुद्रिक रूप से घेरने की उसकी 'स्ट्रिंग ऑफ पर्ल' नीति का अंतिम छोर है। इस प्रकार जहाँ चीन-पाकिस्तान का गठजोड़ सीपैक परियोजना के माध्यम से भारत को उत्तरी पश्चिमी क्षेत्र से दबाव में डाल रहा है वहीं ग्वादर बन्दरगाह के माध्यम से भारत की सामुद्रिक सुरक्षा के लिए चुनौती खड़ा कर रहा है।¹¹

चीन व पाकिस्तान की आतंकवाद को प्रश्रय की नीति

चीन जहाँ एक तरफ पाकिस्तान की कश्मीर नीति का समर्थन करता है वहीं दूसरी तरफ आतंकवाद के मुद्दे पर भी पाकिस्तान का अन्तर्राष्ट्रीय मंचों पर बचाव करता आया है। चीन ने भारत द्वारा पाकिस्तान के आतंकी संगठन जैश-ए-मोहम्मद के संस्थापक मसूद अजहर को संयुक्त राष्ट्र संघ की वैश्विक आतंकी सूची में डालने के प्रस्तावों में कई बार अड़गा लगाया है। मसूद अजहर की भारत में घटित अधिकांश आतंकी घटनाओं में प्रमुख भूमिका रही है। भारत में आतंकवाद फैलाने के लिए मसूद अजहर ने वर्ष 2000 में पाकिस्तान में जैश-ए-मोहम्मद संगठन की स्थापना की थी।¹² पाकिस्तानी फौज और पाकिस्तानी खुफिया एजेंसी इण्टर सर्विसेज इण्टेलिजेन्स (आई.एस.आई.) पाकिस्तान स्थित आतंकी संगठनों को भारत विरोधी गतिविधियों में प्रशिक्षण से लेकर हथियार तक मुहैया करवाती है। विदित हो कि मसूद अजहर को छुड़ाने के लिए ही 24 दिसम्बर 1999 को भारतीय इण्डियन एयरलाइन्स के विमान आई.सी.-814 का अपहरण कर कांधार (अफगानीस्तान) ले जाया गया था।¹³ 14 फरवरी 2019 को जम्मू-कश्मीर के पुलवामा में बी.एस.एफ. के काफिले पर हुए आतंकी (पुलवामा हमला) हमले के बाद भारत ने मसूद अजहर को संयुक्त राष्ट्र संघ की वैश्विक आतंकी सूची में डालने का प्रस्ताव पेश किया था जिसका समर्थन संयुक्त राष्ट्र संघ की सुरक्षा परिषद के 15 सदस्यों में से 14 सदस्यों ने किया था परन्तु चीन ने अपनी निषेधाधिकार शक्ति (वीटो पावर) के प्रयोग से इस प्रस्ताव को खारिज करवा दिया था।¹⁴ चीन ने

इससे पहले भी वर्ष 2009, 2016 और 2017 में मसूद अजहर को वैश्विक आतंकी सूची में डालने के प्रस्तावों को खारिज करवा दिया था। इसी तरह चीन ने सितम्बर 2022 में न्यूयार्क में आयोजित संयुक्त राष्ट्र सुरक्षा परिषद के सम्मेलन में 26 नवम्बर 2008 को मुम्बई में हुए आतंकी हमले के मुख्य आरोपी साजिद मीर को वैश्विक आतंकी घोषित करने के अमेरिकी प्रस्ताव पर वीटो कर दिया था। इस बार भी सुरक्षा परिषद के 15 में से 14 सदस्य इस प्रस्ताव के समर्थन में थे। विदित हो कि साजिद मीर चौथा ऐसा पाकिस्तानी आतंकवादी है जिसका बचाव चीन ने किया है। इससे पहले भी चीन ने पाकिस्तानी आतंकी अब्दुल रहमान मक्की, अब्दुल रउफ व मसूद अजहर को वैश्विक आतंकी घोषित करने के प्रस्तावों का विरोध किया था।¹⁵

चीन की पाकिस्तानी आतंकवाद को प्रश्रय देने की इसी नीति पर प्रहार करते हुए वर्तमान भारतीय विदेशमंत्री एस.जयशंकर ने सितम्बर 2022 में न्यूयार्क में आयोजित संयुक्त राष्ट्र संघ महासभा के 77 वें सत्र को संबोधित करते हुए चीन व पाकिस्तान का नाम लिए बिना कहा था कि "एक तरफ पड़ोस से आतंकवाद को भारत के खिलाफ प्रायोजित किया जा रहा है तो दूसरा पड़ोसी देश उसे बचाने और आतंकवादियों को ब्लैकलिस्ट करने में अड़गा लगाता है।" भारतीय विदेशमंत्री एस.जयशंकर ने संयुक्त राष्ट्र संघ महासभा से ऐसे देशों के खिलाफ कड़ी कार्यवाही करने की भी मांग की थी।¹⁶

आतंकवादी संगठनों को प्रश्रय देने की नीति के कारण ही पाकिस्तान को दुनिया के लिए खतरा माना जाता है। वर्तमान अमेरिकी राष्ट्रपति जो बाइडेन ने भी पाकिस्तान को दुनिया का सबसे खतरनाक देश माना है क्योंकि पाकिस्तान के अस्थिर राजनीतिक हालातों और वहाँ पर कट्टरपंथी विचारधारा व आतंकवादी संगठनों पर नियन्त्रण न होने के कारण पाकिस्तान के परमाणु हथियारों का आतंकवादियों के हाथों में जाने का खतरा सदैव बना रहता है। विदित हो कि पाकिस्तान के पास लगभग 165 के करीब परमाणु हथियार हैं। इसके अलावा साउथ एशिया टेररिज्म पोर्टल नाम की संस्था की रिपोर्ट के अनुसार पाकिस्तान में 45 से अधिक आतंकी संगठन सक्रिय हैं। अमेरिका की कांग्रेसनल रिसर्च सर्विस ने भी अपनी एक रिपोर्ट में दावा किया है कि पाकिस्तान में लश्कर-ए-तैयबा, हरकत-उल-जिहाद और जैश-ए-मोहम्मद जैसे 12 से अधिक आतंकी संगठनों को गतिविधियाँ विदेशों तक फैली हुई हैं।¹⁷ पाकिस्तान में आतंकी संगठनों के फलने-फूलने के कारण ही आतंकवाद के वित्तपोषण पर निगरानी तथा मनीलान्ड्रिंग पर नियन्त्रण करने वाली पेरिस (फ्रांस) स्थित वैश्विक संस्था फाइनेशियल एक्शन टास्क फोर्स (एफ.ए.टी.एफ.) ने फरवरी 2018 से ही पाकिस्तान को आतंकी संगठनों की फंडिंग पर रोक लगाने में नाकाम रहने के कारण विश्व की प्रमुख आर्थिक संस्थाओं को पाकिस्तान को आर्थिक सहायता देने पर रोक लगा रखी थी तथा पाकिस्तान को 'ग्रे' लिस्ट में था। पाकिस्तान के इससे भी निम्नतम 'ब्लैक लिस्ट' जाने की भी सम्भावना थी परन्तु चीन के द्वारा लगातार बचाव करते रहने के कारण वह 'ग्रे लिस्ट' में ही रहा। हालांकि 21 अक्टूबर 2022 को पेरिस में आयोजित एफ.ए.टी.एफ. की बैठक में पाकिस्तान को चार साल बाद 'ग्रे' लिस्ट से बाहर कर दिया है।¹⁸ जिस पर भारत ने अपनी आपत्ति दर्ज करवायी है क्योंकि पाकिस्तान लगातार भारत विरोधी व आतंकवादी गतिविधियों में संलिप्त है।

निष्कर्ष

पाकिस्तान का भारत से विभाजन जिस साम्प्रदायिक भावना व धार्मिक उन्माद की पृष्ठभूमि में हुआ था वह बदस्तूर आज भी जारी है। भारत के साथ नकारात्मक प्रतिस्पर्धा की भावना के कारण पाकिस्तान पहले संयुक्त राज्य अमेरिका और अब चीन का पिछलग्गू है। चीन भी अपनी वैश्विक वर्चस्व की महत्वाकांक्षा और विश्व में भारत की बढ़ती लोकप्रियता के कारण भारत को अपना प्रतिद्वंदी मानता है। दक्षिण एशिया में भारत को घेरने की नीति के तहत तथा भारत विरोधी सांझा हितों के कारण चीन-पाकिस्तान ने गठजोड़ बना कर भारत की विदेश नीति के समक्ष सामरिक चुनौतियाँ खड़ी की हुई हैं। निःसन्देह भारत को चीन-पाकिस्तान गठजोड़ से निपटने के लिए सुरक्षा सम्बन्धी उपायों के अलावा अमेरिका, जापान और आस्ट्रेलिया आदि देशों से मिलकर इन चुनौतियों का सामना करना होगा।

REFERENCES

- स्माल, एण्ड्रयू, द चाइना पाकिस्तान एक्सिस : एशियाज, न्यू जियोपॉलिटिक्स, पेंगुइन रेण्डम हाउस इण्डिया प्रा.लि, गुडगांव, 2020, पृष्ठ-1
- प्रतियोगिता दर्पण, सितम्बर 2013, पृष्ठ-285
- खन्ना, वी.एन., भारत और अन्तर्राष्ट्रीय सम्बन्ध, साहित्य भवन प्रा.लि., आगरा, 2005, पृष्ठ-197

4. सिंह, रहीस, वैश्विक सम्बन्ध, डार्लिंग किंडरस्ले (इण्डिया) प्रा.लि., नोयडा, 2013, पृष्ठ- 158-159

5. राघवन, के.एन., डिवाइडिंग लॉइन्स : कॉनट्रर्स ऑफ इण्डिया-चाइना डिस्कार्ड ,लिडस्टार्ट पब्लिशिंग प्रा.लि., मुम्बई, 2018, पृष्ठ- 231-239

6. कुमार, अशोक, विपुल अनेकांत, भारत की आंतरिक सुरक्षा की मुख्य चुनौतियाँ, मैग्राहिल एजुकेशन (इण्डिया) प्रा.लि., चैन्नई, 2020, पृष्ठ-10.3

7. यादव, आर.एस., भारत की विदेश नीति, डार्लिंग किंडरस्ले (इण्डिया) प्रा.लि., नोयडा, 2013 पृष्ठ- 155-158

8. दीक्षित, जे.एन., भारत-पाक सम्बन्ध (युद्ध और शांति में), प्रभात पेपर बैक्स प्रकाशन, नई दिल्ली, 2012, पृष्ठ- 374-376

9. दैनिक भास्कर, 1मई, 2022, पृष्ठ-13

10. वर्ल्ड फोकस, अंक-71, फरवरी 2018, पृष्ठ- 72-73

11. वर्ल्ड फोकस, अंक-57, दिसम्बर 2016, पृष्ठ-39

12. सिंह, आशीष विक्रम, भारत-पाकिस्तान सम्बन्धों में अमेरिकी नीति, फर्स्ट प्रिन्ट पब्लिकेशन, इलाहाबाद, 2018, पृष्ठ-85

13. दत्त, वी.पी., बदलती दुनिया में भारत की विदेश नीति, भाग-2, हिन्दी माध्यम कार्यान्वयन निदेशालय, दिल्ली विश्वविद्यालय, दिल्ली, 2015, पृष्ठ-565

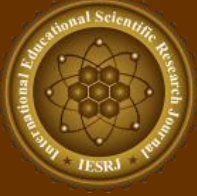
14. दैनिक भास्कर, 13 व 14 मार्च 2019, पृष्ठ- 4 व 1

15. दैनिक भास्कर, 18 सितम्बर 2022, पृष्ठ-1

16. दैनिक भास्कर, 26 सितम्बर 2022, पृष्ठ-5

17. दैनिक भास्कर, 18 अक्टूबर 2022, पृष्ठ-9

18. दैनिक भास्कर, 22 अक्टूबर 2022, पृष्ठ-1



बाल श्रम और मानव अधिकार

नीतू चौहान

अतिथि शिक्षिका, समाजशास्त्र विभाग, जय नारायण व्यास विश्वविद्यालय, जोधपुर।

ABSTRACT:

KEYWORDS:

आरम्भ से ही मानवीय सम्य समाज की रक्षा करना मानव जाति का एक लक्ष्य रहा है। अलग-अलग समाजों में मानवता के विषय पर विभेद रहा है किन्तु मौलिक मानवीय अनिवार्यता सभी प्रकार के वाद – विवाद से परे रही है। समकालीन समाज में इन्हें मानवाधिकार कहा जाता है।

अमरीकी स्वतंत्रता की घोषणा (1776) तथा फ्रांस की क्रांति (1789) में व्यक्तिगत स्वतंत्रता पर अत्यधिक बल दिया गया था तथापि विभिन्न कालों में मानवाधिकारों को प्रदान करने में काफी भेदभाव रहा है। जन्म, लिंग, सामाजिक पदक्रम, सामाजिक नैतिकता, व्यक्तिगत मूल्य, शासकीय या दैवीय शक्तियाँ मानवाधिकारों के निर्धारण में महत्वपूर्ण भूमिका निभाती रही है।

कालांतर म द्वितीय विश्व युद्ध के वाद हिंसा को रोकने और विश्व के पुनर्निर्माण के लिए संयुक्त राष्ट्र संघ द्वारा मानवाधिकारों की घोषणा की गई। 10 दिसम्बर 1948 को संयुक्त राष्ट्र संघ महासभा ने मानवाधिकारों का घोषणा पत्र पारित किया। मानवाधिकारों के सार्वभौमिक घोषणा-पत्र के अन्तर्गत प्रस्तावना सहित कुल 30 अनुच्छेदों में बुनियादी नागरिक, सांस्कृतिक, आर्थिक, राजनीतिक और सामाजिक अधिकारों का उल्लेख किया गया है जो विश्व के प्रत्येक देश के हर नागरिक को प्राप्त होने चाहिए। 1950 में संयुक्त राष्ट्र महासभा के द्वारा प्रतिवर्ष 10 दिसम्बर को मानवाधिकार दिवस के रूप में मनाए जाने की घोषणा की गई।

भारत संयुक्त राष्ट्र संघ का एक सक्रिय सदस्य है। मानवाधिकार संबंधी संयुक्त राष्ट्र संघ की घोषणा का भारतीय संविधान में प्रशंसनीय ढंग से उल्लेख किया गया है। मानवाधिकारों के सार्वभौमिक घोषणा-पत्र के छह दशकों के दौरान भारत में मानव के मौलिक अधिकारों में शिक्षा, जीविका, वैचारिक स्वतंत्रता, समानता, संगठन बनाने तथा स्वतंत्र रूप से धार्मिक विश्वास के

अधिकार के क्षेत्र में निश्चित ही वृद्धि हुई है लेकिन आज भी मानवाधिकारों का हनन जारी है। वास्तविकता में आज का मानव जीने के अधिकार को लेकर संघर्ष कर रहा है। समाज में सम्मानजनक जीवन एवं समान अधिकारों के लिए गरीब वर्ग सदा संघर्ष करता रहा है। धनवल, बाहुबल, सामंतवाद, साम्राज्यवाद तथा राजनीतिक सत्ता का मद इस वर्ग को उसके अधिकारों से वंचित कर रहा है। मानवाधिकार के हनन की श्रृंखला में बाल-श्रम एक ऐसा ही अभिशाप है जिसके कारण दुनियाभर में लाखों बच्चे प्रतिदिन अपने बचपन को कुचलने के लिए मजबूर हैं। जिन बच्चों के हाथों में खिलौने, कागज-कलम, किताब, पेंसिल होनी चाहिए थी वे बच्चे गलियों और सड़कों पर से कचरा बीनने, ढावों पर ग्राहकों को घाय – खाना पहुँचाने, वर्तन साफ करने, जूते पॉलिश करने, भवन निर्माण के कार्य, स्कूटर एवं कारों की मरम्मत एवं पंक्चर बनाने का कार्य करने, पटाखे, रसायन तथा बीड़ी बनाने के कारखानों में, विभिन्न देवी-देवताओं के नाम पर तेल और पैसे बटोरने, कुलीगिरी तथा फेरी लगाकर छोटी-मोटी जरूरत की चीजें बेचने, दरी-काँच उद्योग, हीरा – पॉलिश उद्योग आदि कई खतरनाक कार्यों में संलग्न हैं।

इसी प्रकार ग्रामीण क्षेत्रों में भी बच्चे स्व-नियुक्त श्रमिकों के तौर पर या सिर्फ अवैतनिक पारिवारिक सहायकों की तरह काम करते हैं। जानवर चराने, कृषि कार्य, गृह आधारित उद्यम जैसे बीड़ी, हथकरघा, दस्तकारी, कुम्हारी, कागज के लिफाफे, प्लास्टिक की वस्तुएँ बनाने और मत्स्य संसाधन जैसा काम करते हैं।

बच्चों की आर्थिक क्रियाओं में भागीदारी विश्वव्यापी घटनाक्रम है। केवल गरीब और विकासशील देशों में ही नहीं, तथाकथित विकसित और समृद्ध देशों में भी यह समस्या

पाई जाती है, कारण स्पष्ट हैं, समृद्ध देश अभी तक गरीबी की समस्या से मुक्ति नहीं पा सके हैं। यह गरीब जनसंख्या कई बार रोजगार की तलाश में गांवों से

शहर आती है। जनसंख्या का गांवों से शहरों की ओर प्रवास नगरीकरण की जिन अनेक समस्याओं को जन्म देता है उसमें एक निवास की समस्या है जो नगरों में गंदी बस्तियों का आकार बढ़ाती है। दूसरी समस्या रोजगार की है। समुचित कार्य के अभाव में गरीब किसी भी कार्य को करने के लिए तैयार हो जाते हैं चाहे नाम मात्र का मेहनताना ही क्यों न मिल रहा हो। इसमें उनके शोषण के अवसर और बढ़ जाते हैं।

इस रोजगार को तलाशती जनसंख्या में गरीब बच्चे (बालक व बालिकाएँ) तथा युवा शोषण के अधिक शिकार होते हैं। यह शोषण बाल श्रम, अपर्याप्त मजदूरी, प्रताड़ना, उपेक्षा, उत्पीड़न, तिरस्कार आदि के रूप में होता है। माता-पिता व बच्चों के बीच अस्वस्थ पारिवारिक सम्बन्ध समस्या को और उग्र करते हैं। इन सबका परिणाम यह होता है कि ऐसे बच्चे सड़कों पर आ जाते हैं और अपनी जीवनचर्या और दिनचर्या का अधिकांश भाग सड़कों पर ही गुजार देते हैं या किसी न किसी रोजगार आर्थिक किया में संलग्न हो जाते हैं।

वस्तुतः प्राचीन समाजों में भी बच्चे विविध कार्यों में अपने परिजनों की सहायता करते थे लेकिन यह सहायता उनकी समाजीकरण की प्रक्रिया का हिस्सा थी। बालश्रम जिस रूप में हमें आज दिखाई देता है उसकी जड़ें औद्योगिक क्रांति के वाद विकसित समाज में देखी जा सकती हैं। उद्यमियों और फैक्ट्री मालिकों द्वारा सरता श्रम पाने की इच्छा ने इसे आगे बढ़ाते हुए समस्या के रूप में विकसित करने में भूमिका निभाई। आज विश्व के लगभग सभी देशों विशेषकर विकासशील देशों में यह समस्या बहुत ही गम्भीर होती जा रही है।

संयुक्त राष्ट्र बाल श्रम आयोग के अध्यक्ष होमर फॉक्स ने बाल श्रम की परिभाषा इस प्रकार की है "बालको द्वारा किया जाने वाले हर कार्य जो उनके पूर्ण शारीरिक विकास में बाधक है, उन्हें शिक्षा का न्यूनतम स्तर भी ग्रहण नहीं करने देता और उनके लिए आवश्यक खेलने कूदने और मनोरंजन की आवश्यकताओं को पूरा नहीं होने देता, बाल श्रम है।" (श्रम अन्वेषण समिति, मुख्य रिपोर्ट, 1946)

अन्तर्राष्ट्रीय श्रम संगठन के अनुसार "बाल श्रमिक वे बालक हैं जो स्थायी तौर पर वयस्कों की तरह जीवन जी रहे ह, कम मजदूरी पर कई-कई घण्टे ऐसी कार्य दशाओं में कार्य करते हैं जिनसे उनका स्वास्थ्य खराब होता है तथा शारीरिक एवं मानसिक विकास रूक जाता है। इस कार्य के कारण कभी-कभी तो उन्हें अपने परिजनों से दूर भी रहना पड़ता है तथा प्रायः वे उस सार्थक शिक्षा एवं प्रशिक्षण सम्बन्धी अवसरों से वंचित रह जाते हैं जिनके कारण उनके बेहतर भविष्य के" रास्ते खुल सकते हैं।" (अन्तर्राष्ट्रीय श्रम संगठन का वार्षिक प्रतिवेदन, 1989:04)

भारतीय संविधान के अनुसार वह बालक जो 14 वर्ष से कम आयु का है और पैसा कमाने के लिए काम कर रहा है, बाल श्रमिक कहलाएगा। (इंग्लू, 1993: पृ. सं. 08)

संयुक्त राष्ट्र संघ के अनुसार 18 वर्ष से कम आयु का श्रमिक बाल श्रमिक है।

इस प्रकार ऐसा प्रत्येक कार्य जिसे बालक लाभ प्राप्त करने के लिए करता है, बाल श्रम के अन्तर्गत आता है। यद्यपि घरेलू कार्यों में लगे बच्चों को और पारिवारिक कृषि कार्यों में संलग्न बच्चों को कोई मजदूरी नहीं मिलती, परन्तु उनके कार्य से उनकी वचपन की गतिविधियों जैसे :- शिक्षा और मनोरंजन में बाधा जरूर पड़ती है। अतः

बाल श्रमिक की परिभाषा में वेतन पाने वाले और न पाने वाले दोनों कार्यों को सम्मिलित किया जाता है।

अन्तर्राष्ट्रीय मजदूर संघ ने बाल श्रमिकों के कार्यों को घरेलू अवैतनिक कार्य (छोटे भाई- बहिनों की देखभाल, खाना पकाना, सफाई करना, कपड़े धोना, पानी भरकर लाना आदि), गैर घरेलू अवैतनिक कार्य (पशुओं की देखभाल, पशु-पक्षियों से फसल की सुरक्षा, मत्स्य पालन, मधुमक्खी- पालन आदि), मजदूरी का कार्य (शिल्पकारी उत्पादन, लघु उद्योग, उत्पादन, व्यापार विनिर्माण, नौकरी-पेशों में संलग्न, भोजनालयों, कवाडी, फेरी वाले, अखवार बेचने के कार्यों में संलग्न) तथा बंधुआ मजदूर (विना वेतन या बहुत मामूली वेतन के बदले कार्य करना ताकि माता - पिता द्वारा लिए गए ऋण की वसूली हो सके) के रूप में वर्गीकृत किया है।

आर्थिक कार्यों में संलग्न बाल श्रमिक संगठित और असंगठित दोनों ही क्षेत्रों में कार्यरत हैं। संगठित क्षेत्र में वे श्रमिक आते हैं जो बड़े कारखाने और संस्थानों में काम करते हैं और जहाँ श्रमिकों को रोजगार एक तय कार्यप्रणाली के अनुसार दिया जाता है। श्रमिकों का रोजगार स्थायी होता है। काम के घण्टे विश्राम, छुट्टियाँ, स्वास्थ्य और सुरक्षा सम्बन्धी कई नियमों का पालन कारखाना अधिनियम (1948) तथा औद्योगिक विवाद

कानून (1947) के अन्तर्गत होता है। इसके अलावा न्यूनतम वेतन अधिनियम, वोनस भुगतान अधिनियम, प्रोविडेंट फंड अधिनियम, कर्मचारी राज्य बीमा अधिनियम भी श्रमिकों को सुरक्षा और सुविधाएँ उपलब्ध कराते हैं।

इसके विपरीत असंगठित क्षेत्र में सभी दैनिक मजदूर ठेका मजदूर, होटल कारखानों के मजदूर तथा स्व-रोजगारों के उद्योगों (छोटे दुकानदार, कुशल दस्तकार, बढई, मैकेनिक इत्यादि अपना काम खुद करते हैं, अकुशल श्रमिक जैसे :- कुली या फिर गृह आधारित श्रमिक) में लगे श्रमिक शामिल हैं। इस क्षेत्र में कोई तय कार्यप्रणाली नहीं है न ही कोई कानून है जिनके अनुसार श्रमिकों की नियुक्ति या काम की शर्तों को परिभाषित किया गया हो। न्यूनतम वेतन अधिनियम, समान वेतन अधिनियम तथा सेवा मजदूर नियंत्रण तथा उन्मूलन अधिनियम आदि कुछ अधिनियम ऐसे हैं जो इस क्षेत्र के मजदूरों पर लागू होते हैं।

यह उल्लेखनीय है कि बाल श्रमिक चाहे संगठित क्षेत्र में हो या असंगठित क्षेत्र में, उनका शारीरिक, आर्थिक व भावनात्मक शोषण तो होता ही है, उनके शिक्षा पाने और व्यक्तित्व विकास के अवसर भी अवरुद्ध हो जाते हैं। शर्मा (1997 : 84) ने उनके शोषण के विभिन्न पक्षों को तालिका में श्रेणीबद्ध किया जो निम्न है :-

तालिका : बाल श्रमिकों के शोषण के स्वरूप एवं प्रकार

क्र.सं.	आधार	शोषण के स्वरूप एवं प्रकार		
1	पारिश्रमिक	कम मजदूरी का भुगतान	कोई भुगतान नहीं	पारिवारिक ऋण/अग्रिम का किश्तवार समायोजन
2	कार्यविधि	पूर्णकालिक	अंशकालिन	निर्धारित कार्यविधि से काफी अधिक
3	स्वतन्त्रता	पूर्ण स्वतन्त्रता	सीमित स्वतन्त्रता	बंधुआ
4	उत्पादन कार्य परिसर	घर से अलग मालिक कार्य परिसर	मालिक के घर में उत्पादन कार्य करना	मजदूरों द्वारा अपने घर का कार्य करना।
5	नियोजन	प्राइवेट मालिक के अधीन	पारिवारिक नियोजन	ठेकेदार/एजेन्ट के अधीन
6	सेक्टर (उत्पादन क्षेत्र)	प्राथमिक (कृषि)	द्वितीयक (औद्योगिक)	तृतीयक (घरेलू नौकर, होटल, दुकान, गैरेज आदि में सेवायें देना।)
7	संगठनात्मकता	संगठित क्षेत्र	असंगठित क्षेत्र	अर्द्ध संगठित क्षेत्र
8	कार्य का जोखिम	गैर जोखिमपूर्ण	कम जोखिमपूर्ण	अति जोखिमपूर्ण
9	मजदूरी भुगतान	टाईम-रेट (मासिक/साप्ताहिक)	पीस रेट (मात्रा/संख्या)
10	कार्य के अतिरिक्त शोषण	शारीरिक	मानसिक	यौन शोषण

सभी देशों की सरकारें बाल श्रम के परिणामों की गम्भीरता से परिचित हैं। इस दिशा में अन्तर्राष्ट्रीय तथा राष्ट्रीय स्तर पर अनेक कदम उठाये गये हैं। उदाहरण के लिये संयुक्त राष्ट्र संघ ने 1959 में बाल अधिकारों की घोषणा की। सन् 1979 को अन्तर्राष्ट्रीय बाल वर्ष घोषित किया गया। विश्व स्वास्थ्य संगठन तथा यूनिसेफ बच्चों के स्वास्थ्य तथा युद्ध पीड़ित बच्चों के पुनर्वास के लिये अनेक कार्यक्रम चला रहे हैं जिनमें बाल श्रमिक भी आते हैं। पर्यटन के विकास से बालिकाओं के यौन शोषण में वृद्धि पर भी अनेक देशों का ध्यान गया है।

बाल श्रम की गम्भीरता का पता इसी से लगाया जा सकता है कि पूरे विश्व की बाल श्रम जनसंख्या का 30 प्रतिशत बाल श्रम भारत में पाया जाता है। जहाँ सरकारी आंकड़ों के अनुसार भारत में 2 करोड़ बाल श्रमिक विभिन्न कार्यों में संलग्न हैं वहीं विभिन्न गैर सरकारी संगठनों के अध्ययन के अनुसार भारत में बाल जनसंख्या (लगभग 39.11 करोड़) का 14 प्रतिशत (लगभग 5.48 करोड़) जो कि 5-14 वर्ष आयु वर्ग के हैं बाल श्रम में संलग्न हैं। भारत में सर्वप्रथम 1881 में कारखाना अधिनियम में बाल श्रमिकों की आयु, काम के घण्टे, काम की प्रकृति आदि पर ध्यान दिया गया। स्वतंत्र भारत के संविधान में विशेष रूप से अनुच्छेद 20 से 54 तक में बच्चों पर ध्यान दिया गया है। इनमें निम्न अनुच्छेद विशेष रूप से बाल श्रम से

जुड़े हैं :-

बाल श्रम से सम्बन्धित संवैधानिक एवं विशेष कानूनी प्रावधान

संविधान का अनुच्छेद 24 :- 14 वर्ष की आयु से कम बच्चे को किसी भी कारखाने, खान या अन्य खतरनाक व्यवसायों में लगाने पर प्रतिबन्ध।

संविधान का अनुच्छेद 39 (ड):- सरकार द्वारा अपनी नीति का इस प्रकार संचालन करना कि सुनिश्चित रूप से बालकों की सुकुमार अवस्था का दुरपयोग न हो और आर्थिक आवश्यकता मजबूर होकर उन्हें ऐसे रोजगार में न जाना पड़े जो उनकी आयु व शक्ति के अनुकूल न हो।

संविधान का अनुच्छेद 39 (च) :- सरकार द्वारा यह सुनिश्चित करना कि बालकों को स्वतन्त्र और गरिमामय वातावरण में स्वस्थ विकास के अवसर और सुविधाएँ उपलब्ध हो तथा बालकों की शोषण से रक्षा हो।

संविधान का अनुच्छेद 45 :- 14 वर्ष तक की आयु के सभी बच्चों को सरकार द्वारा निःशुल्क और अनिवार्य शिक्षा की व्यवस्था सुनिश्चित किया जाना।

संविधान का अनुच्छेद 21 (क) :- संविधान के 86 वें संशोधन, 2000 के माध्यम से बच्चों को शिक्षा का मौलिक अधिकार प्रदान किया गया है।

इनके अलावा बाल श्रम से सम्बन्धित आयोग व समितियाँ समय-समय पर गठित की गई हैं। उनमें से कुछ निम्न हैं:-

बाल श्रम पर आयोग एवं अधिनियम

1. रॉयल कमीशन ऑफ लेबर (1929)
2. राष्ट्रीय बाल बोर्ड (1975)
3. बाल श्रम पर गुरुपद स्वामी आयोग (1979)
4. श्रम जांच समिति (1981)
5. बाल श्रमिक तकनीकी परामर्शदात्री समिति (1987)
6. राष्ट्रीय मानवाधिकार आयोग (1993)
7. राष्ट्रीय श्रम आयोग
8. बाल श्रम पर शांता मेहता समिति
9. हरबंस सिंह समिति
10. सिंधवी समिति

संयुक्त राष्ट्र संघ ने 20 नवम्बर, 1989 को एक प्रस्ताव पारित किया जिसमें बच्चों के

अधिकार सम्बन्धी समझौते में चार प्रकारों का उल्लेख किया है ।

1. जीने का अधिकार (अनुच्छेद 6)
2. विकास का अधिकार (अनुच्छेद 6)
3. सुरक्षा का अधिकार (अनुच्छेद 19)
4. सहभागिता का अधिकार (अनुच्छेद 12)

जीने के अधिकार के अन्तर्गत बच्चों के सुचित पोषाहार का, मानवोचित जीवन-स्तर उपयोज्य करने का तथा स्वास्थ्य के उच्चतम स्तर की प्राप्ति का अधिकार सम्मिलित हैं ।

विकास के अधिकार के अन्तर्गत प्राकृतिक आपदाओं (यथा अकाल वाढ युद्ध आदि) के दौरान बच्चों को सामाजिक सुरक्षा, वचपन में समुचित देखभाल, मनोरंजन, सुमचित शिक्षा तथा सांस्कृतिक गतिविधियों का अधिकार सम्मिलित हैं ।

सुरक्षा का अधिकार के अन्तर्गत बच्चों को सभी प्रकार की शारीरिक और मानसिक हिंसा, चोर, अपमान, उपेक्षा, दुर्व्यवहार तथा शोषण से सुरक्षा प्रदान करना है ।

सहभागिता के अधिकार के अन्तर्गत बच्चों के दृष्टिकोण के प्रति सम्मान, अभिव्यक्ति को स्वतंत्रता, विवेक और धर्म के प्रति सम्मान तथा अभियुक्त बच्चों का अधिकार सम्मिलित हैं ।

भारत में वी. वी. गिरि राष्ट्रीय श्रम संस्थान, नई दिल्ली तथा महात्मा गाँधी श्रम संस्थान, अहमदाबाद उन संस्थानों में से हैं जो श्रमिकों की विभिन्न समस्याओं और उनके जीवन के विविध पक्षों पर अनेक अध्ययन करवाते रहे हैं । इनमें बाल श्रमिकों के हुए विभिन्न अध्ययन भी शामिल हैं ।

निएलसेन (2002) ने ग्रामीण भारत में बाल श्रम के अध्ययन के आधार पर निष्कर्ष निकाला है कि गृहस्थी के बड़े हुए खर्च तथा माता – पिता की शिक्षा का निम्न स्तर बाल श्रमिकों की बढ़ती हुई संख्या और बच्चों के स्कूल न जाने की प्रवृत्ति के लिए जिम्मेदार कारक माने जा सकते हैं ।

विजय भास्कर (2000) ने तिरुपुर की सूती बुनाई उद्योग में बाल श्रम के आयामों के अध्ययन में पाया कि वे अकुशल व्यवसायों में रत हैं और कुशल कारीगरों के वेतन के आधे से भी कम दर से भुगतान प्राप्त करते हैं ।

एम. वी. फाउण्डेशन की चेर परसन **शांता सिन्हा** ने अपने फाउण्डेशन की ओर से करवाए गये एक सर्वेक्षण के आधार पर बताया है कि कपास के खेतों में काम करने वाले मजदूरों में जहां श्रमिक बालिकाएँ महीने में 29.4 दिन सवैतनिक कार्य करती हैं, स्त्रियाँ 22.2 दिन तथा पुरुष 18.6 दिन। जहां तक परिवार की आमदनी में योगदान की बात है परिवार की कुल आय में लड़कियों का भाग 28.7 प्रतिशत महिलाओं का 28.3 प्रतिशत तथा पुरुषों का 42.8 प्रतिशत होता है । इस सर्वेक्षण में यह भी पाया गया कि खेत मालिक स्कूलों में जाकर लड़कियों को काम करने आने को प्रेरित करते हैं उन्हें अच्छा काम करने पर उपहार देते हैं और खाली समय में लोकप्रिय फिल्मों दिखाने की व्यवस्था करते हैं । वहां यह मिथक फैलाया जाता है कि बालिकाओं के स्पर्श से कपास की पैदावार में वृद्धि हाती है ताकि लड़कियों को काम करने को प्रेरित किया जा सके ।

कलाइबेरिया में फायरस्टोन टायर और रवर कंपनी एक रवड वृक्षारोपण का कार्य करती है। कंपनी में काम करने वाले श्रमिक वृक्षारोपण के कार्य को पूरा करने के लिए अपने साथ अपने बच्चों को लाने के लिए मजबूर हैं अन्यथा कार्य समय पर न किए जाने की एवज में श्रमिकों को आधा मेहनताना ही मिल पाएगा। बाल श्रमिकों और उनके अभिभावकों की ओर से मुकदमा किए जाने पर न्यायाधीश ने फायरस्टोन के प्रस्ताव को खारिज करने से इन्कार कर दिया ।

निष्कर्ष :

वर्तमान समय में मानव अधिकार मनुष्य मात्र की न्यूनतम आवश्यकताओं को परिभाषित करते हैं। मानव अधिकारों का क्षेत्र बड़ा व्यापक है और अभी तक उसके सभी पक्षों पर कानूनी आधार या समर्थन नहीं मिल पाया है । उनके प्रति विभिन्न वर्गों में संवेदनशीलता भी अभी अच्छी तरह विकसित नहीं हो पाई है। संयुक्त राष्ट्र मानव

अधिकार परिषद में भी कई सवाल उठाए गए हैं जो कि विश्व की उन एक अरब भूखी, कुपोषित, बीमार, लाचार, बेरोजगार व निर्धन जनसंख्या के बारे में हैं जो समाज के हाशिये पर खड़ी हैं। मानवाधिकारों के विश्वव्यापी विषय पर संयुक्त राष्ट्र व मानवतावादी साकभौमिक घोषणा-पत्र पर प्रश्नचिन्ह लग रहा है । मानवाधिकार और सामाजिक न्याय की दिशा में गांधी जी ने जो प्रयास किए उन पर विश्व के सभी देशों को मिलकर गहनता से विचार – विमर्श करना होगा तभी हर मनुष्य के लिए बुनियादी मानवाधिकार सुनिश्चित किए जा सकते हैं ।

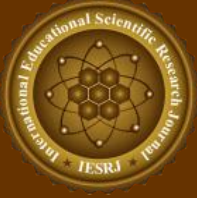
बाल- श्रम जैसी जटिल समस्या का समाधान भी समाज के केवल एक वर्ग द्वारा नहीं खोजा जा सकता है बल्कि जिस परिवार में बच्चे जन्म लेते हैं वहाँ से लेकर उस देश की सरकार और सम्पूर्ण समाज के दृष्टिकोण पर निर्भर करता है कि वह बाल श्रम को जारी रखना चाहता है अथवा उसका उन्मूलन करना चाहता है । अन्तर्राष्ट्रीय श्रम संगठन की स्थापना (1919) के 93 वर्ष पश्चात् भी बाल श्रम जैसी महामारी का वने रहना इस संगठन के बुनियादी उद्देश्यों को ही चुनौती देता है, जिनमें कहा गया था कि राष्ट्र श्रम कोई वस्तु विनिमय की चीज नहीं है ।

आर्थिक इतिहासकार झूग क्यूननइंघम, 1500 के बाद से पश्चिमी समाज में बच्चे और बचपन के लेखक हैं, उनके शब्दों में उदघृत :

“पचास साल पहले यह अनुमान लगाया गया कि, जैसे बाल श्रम विकसित देशों में उन्नीसवीं सदी के अंत और बीसवीं शताब्दी के शुरू में कम हो गया, उसी तरह घटते क्रम में शायद बाकी दुनिया में भी कम हो जाए। ऐसा सोचना असफल साबित हुआ और यह विकसित दुनिया में फिर से उभरा और किसी भी अर्थव्यवस्था में अपनी भूमिका के बारे में सवाल उठा दिए, चाहे वह अर्थ व्यवस्था राष्ट्रीय हो या वैश्विक ।

REFERENCES

1. श्रम अन्वेषण समिति, मुख्य रिपोर्ट, 1946
2. अन्तर्राष्ट्रीय श्रम संगठन का वार्षिक प्रतिवेदन, (1989:04)
3. इंदिरा गांधी राष्ट्रीय मुक्त विश्वविद्यालय मानविकी विद्यापीठ (1993)
4. भारत में सामाजिक समस्याएँ, ESO- 06, खण्ड 3, 5, नई दिल्ली
5. शर्मा सुभाष (1997), भारत में बाल मजदूर, नई दिल्ली, प्रकाशन संस्थान
6. निल्सेन, एच.एस. एण्ड अमरेश दुबे (2002), चाईल्ड लेबर इन रूरल इण्डिया : ए माइक्रो- इकोनोमिक प्रोसपेक्टिव इण्डियन जर्नल ऑफ लेबर इकोनोमिक्स, वीओएल. 45, नम्बर 2, पीपी 476-496
7. भास्कर एम. विजय (2002), “डाईमेंशन ऑफ चिल्ड्रनस वर्क इन द कॉटन निटवियर इण्डरिटी इन त्रिरुपुर”, इण्डियन जर्नल ऑफ लेबर इकोनोमिक्स, वीओएल. 45, नम्बर 2, पीपी 561 – 576
8. झूग क्यूननइंघम, “इंग्लैण्ड में बच्चों का रोजगार और बेरोजगारी, 1680 से 1851,” अतीत और वर्तमान, फरवरी, 1990



मारवाड़ के इतिहास का अनछुआ पहलू 'राईका समाज' : इतिहास एवं संस्कृति के विशेष सन्दर्भ में

सुखराम

शोधार्थी, इतिहास विभाग, जय नारायण व्यास विश्वविद्यालय जोधपुर।

ABSTRACT:

KEYWORDS:

इतिहास व संस्कृति की दृष्टि से मारवाड़ एक धनी क्षेत्र रहा है। भौगोलिक दृष्टि से मारवाड़ एक शुष्क व रेगिनी प्रदेश है। इस क्षेत्र में रहने वाले लोग कठोर जीवन को जीते हैं। यहां के लोग विभिन्न जातीय समुदायों में विभाजित हैं। मारवाड़ में निवास करने वाली विभिन्न जातियों में राजपूत, जाट, राईका (रबारी), पटेल, कुमार, दर्जी, सुथार, मेघवाल इत्यादि प्रमुख हैं। प्रत्येक जाति का अपना एक विशेष इतिहास व संस्कृति है। इनमें से कई जातियों के इतिहास व संस्कृति पर विस्तृत शोध कार्य हो चुका है या हो रहा है। किन्तु कई ऐसी जातियां भी हैं जिनका इतिहास एवं संस्कृति तो बहुत प्राचीन व गौरवपूर्ण है साथ ही यह इतिहास मौखिक है तथा संस्कृति विलुप्त होने के कगार पर है। कुछेक इतिहासकारों ने इन जातियों पर कोई कार्य किया भी है तो वह नगण्य मात्र है। इतिहास की सबसे विश्वासपात्र, कर्तव्यपरायण, और स्वामीमानी जाति राईका समाज को कहा जाए तो इसमें कोई अतिशयोक्ति नहीं होगी। ऐसा ही एक जातीय समाज मारवाड़ का राईका समाज है। इस समाज का इतिहास व संस्कृति दोनों ही बहुत गर्व करने वाला है। इस राईका समाज के सन्दर्भ में कुछ पंक्तियां इस प्रकार हैं।

सिर पर बहुरंगी पाग, राईका वीरों की शान,

हाथ में लाठी, खुद का स्वामीमान।

ऊंटों का झुण्ड, हिन्द से अफगान,

स्वामी की भक्ति के लिए प्राणों का बलिदान।।

राईका जाति का इतिहास:-

सम्पूर्ण भारत में फैले राईका समाज का इतिहास बहुत ही प्राचीन व गौरवान्वित रहा है। दंत कथाओं के अनुसार प्रथम राईका को कैलाश में भगवान महादेव ने अपने पिण्ड या मेल से पैदा किया था उसी पिण्ड का नाम पिण्डा (कहीं कहीं चामड़) रखा गया। पार्वती द्वारा निर्मित ऊंटनी को चराने का कार्य करता था। कालान्तर में उस पिण्डा (चामड़) का विवाह महादेव ने एक राई नामक अप्सरा से करवा दिया। राई व पिण्डा से उत्पन्न संताने ही राईका कहलाई।

कालान्तर में इन राईकों की संख्या में वृद्धि होने के कारण दक्षिण-पश्चिम की ओर (जैसलमेर-मारवाड़) पलायन कर गए। ये राईका जाति के लोग यहां भी ऊंट पालन के पैतृक एवं परम्परागत कार्य करते हैं। जैसलमेर में इन राईकों के साथ दो दुर्भाग्यपूर्ण घटनाएँ हुईं जिनके कारण जैसलमेर का पूरा राईका समाज के स्वामिमान की रक्षा हेतु परलायन कर मारवाड़ व कच्छ की ओर जाकर बस गया। मारवाड़ से अनेक राईका वर्तमान में भारत के विभिन्न जगहों पर जाकर बस गए।

मारवाड़ में भी ये राईका समाज के लोग अपने स्वामिमान के साथ जीने लगे। पहले पड़िहारवंशीय शासकों के शासन के प्रमुख अंग सूतरखाने में कार्य किया। पड़िहार शासक मण्डोर से शासन करते हैं। यहीं रहते हुए राईका समाज ने राईका बेरा, आसानाडा जैसे जलाशयों का निर्माण करवाया। पड़िहार शासन में ही 'राईका बाग' का निर्माण इस राईका समाज के नाम पर तत्कालीन पड़िहार शासक सूरसिंह ने करवाया क्योंकि यहां राईका जाति का निवास स्थान था जिनके प्रमुख आसुराम पीशवाला राईका पड़िहार शासन में सूतरखाने के अधिकारी के रूप में कार्य करते थे।

कालान्तर में पड़िहार शासकों के मारवाड़ राठौड़ शासकों का अधिकार हो गया। राव चूडा को पड़िहारों ने मण्डोर दहेज में दे दिया। राठौड़ शासकों के शासन काल में भी इस समाज के लोग, सूतरखाने व हरकारे जैसे संदेशवाह, सैनिक, ठिकानेदार,

पशुचरवाहा एवं विश्वस्त अंग रक्षक के रूप में कार्य किया। राव जोधा ने जोधपुर किले की स्थापना कर जोधपुर को मारवाड़ की राजधानी बनाया। जोधपुर किले की नींव की स्थापना के समय शीला ऊंट चरवाहों के बाड़े से लाकर लगवाई गई। राव जोधा के कठिन समय में राईका समाज के लोग काम आए। कालान्तर में जसवंतसिंह प्रथम के समय अनेक राईकों ने उसके कठिन परिस्थितियों में सहायता की थी। यही कारण है कि जसवंतसिंह प्रथम ने कई राईकों को गांव पट्टे में दिए।

क्रम संख्या	गांव	राईका गोत्र
1	करमसीसर	पीपावत
2	आसण्डा	सांगावत
3	ककराला जाजीवाल	पीपावत
4	भायला का बास सीवाणा
5	उद्दीवास बैहलवा

मारवाड़ के राठौड़ शासक मानसिंह के शासन काल में भी राईका जाति के लोगों का प्रशासन में विशेष योगदान था। जब जोधपुर पर मानसिंह का शासन था तब मारवाड़ के अनेक राईकें राठौड़ वंश से सम्बन्धित थे। विक्रम संवत् 1863-64 में जब जोधपुर किले को जयपुर-बीकानेर की संयुक्त सेना ने घेर लिया था। जोधपुर किले में शासक के साथ उनके वफादारों में अनेक राईकें भी मौजूद थे। ये राईकें राजपरिवार के बहुत निकट थे। घेरे के समय सावंत राईका का पुत्र राईका उमों राईका आषाढ कृष्ण द्वादशी को फतेहपोल में लड़ते-लड़ते गोली लगने से घायल हो गया। इसी तरह राईका भगवान (राईका राहसींग का पुत्र) को हाथ पर गोली लगी। मानसिंह के शासन काल में घेरे के समय किले में उपस्थित राईकों के नाम हैं। हीन्दू राईका पुत्र बखता राईका, बखता राईका पुत्र हरनाथ राईका, भगवान राईका पुत्र राहासींग राईका, उमा राईका पुत्र परसाद राईका, हरचंद राईका पुत्र जैराम, चुतरों राईका पुत्र रतना राईका, गजों राईका पुत्र खेतसींग इत्यादि प्रमुख हैं।

इनके अलावा भी कुछ राईकें ओर भी थे। पुरकियों राईका जो सुजाण राईका का पुत्र था। धना राईका जो भागचंद राईका का पुत्र था। गढ जोधपुर घेरे के समय इन राईकों ने अपनी वीरता एवं स्वामीभक्ति का परिचय दिया।

इसी तरह राईको महिपत मानसिंह का सेवक था। मानसिंह के शासन काल में उसे सिंध में नियुक्त किया गया था। गढ जोधपुर घेरे के समय इन राईकों ने अपनी वीरता एवं स्वामी भक्ति का परिचय दिया। यही कारण है कि इनकी इसी स्वामी भक्ति से प्रसन्न होकर जोधपुर शासक मानसिंह ने इन वीर शाही राईकों को विभिन्न गांव के पट्टे जागीर में दिए। इनकी वीरता के सम्बंध में एक दोहा प्रचलित है-

“मुछ फरुके पवन सुं, पागां तिरछी पेहर।

राईकों महिपत मान रो, सिंध में दिना डेर।।”

मारवाड़ में राईका (रबारी) समाज राजपरिवार से निकट रूप से जुड़ा हुआ था। जिसके प्रमाण मारवाड़ के विभिन्न ठिकाने की बहियों में देखे जा सकते हैं। खेजड़ला ठिकाने में राईका उगरिया राज परिवार से विशेष रूप से जुड़ा हुआ था। ठिकाने के फतेहकंवर बाईसा के विवाह के समय राईका द्वारा बारात आने की सुचना देने पर नेग के रूप

में पगड़ी पहनाई गई¹⁷ जब रोहित ठिकाने के ठाकुर के यहां लड़के का जन्म हुआ और उसकी बधाई देने पर ठाकुर ने राईका को पाली से लायी गई कसुमल पाग बंधवाई¹⁸

राईका जाति की संस्कृति :-

किसी भी समाज या जाति की संस्कृति का प्रतिक उसकी वेशभूषा होती है। मारवाड़ का यह रबारी समाज अपने विशिष्ट पहनावों के कारण मारवाड़ की संस्कृति का अभिन्न अंग बना हुआ है। मारवाड़ के राईकों का पहनावा क्षेत्रानुसार थोड़ा बहुत परिवर्तित हो सकता है। मारवाड़ के राईका पुरुषों और महिलाओं की वस्त्रों में अन्तर है। राईकाओं की वेशभूषा को दो मुख्य भागों में बांटा जा सकता है।

- महिलाओं की वेशभूषा
- पुरुषों की वेशभूषा

मारवाड़ में सभी जाति की वेशभूषा का तरीका समान था। मारवाड़ के रबारी (राईका) महिलाओं को 'राईकाणियां' कहा जाता है। मारवाड़ में रबारी (राईका) महिलाएं आमतौर पर कुरती, कांचली, घाघरा और ओढनी जैसे वस्त्र धारण करती हैं। इन वस्त्रों के विविध रंग होते हैं। जिनमें लाल, हरा, पीला, नीला आदि प्रमुख हैं। मारवाड़ में राईका महिलाओं के वस्त्र जीवन की अवस्था के अनुसार कई भागों में बांटे गये हैं। जैसे कुंवारी राईका कन्या की वेशभूषा, विवाहित राईका स्त्री की वेशभूषा, वृद्ध राईका महिलाओं की वेशभूषा और विधवा राईका महिला की वेशभूषा इत्यादि। इनमें विधवा राईका महिला का पहनावा सबसे अलग ही होता है।

आटी मारवाड़ के मारू राईका स्त्रियों की विशेष पहचान का प्रतिक है जो इसे गोडवाड़ियों एवं अन्य जातिय समुदायों से अलग और विशेष बनाता है। साथ ही मारवाड़ में मारू राईका कन्याएं अपने विवाह के साथ ही सिर पर आटी भी धारण करती हैं अर्थात् विवाहित महिलाएं ही धारण करती हैं। आटी राईका महिलाएं सिर में बालों के साथ गुंथती थीं।¹⁹ प्रारम्भ में आटी लकड़ी पर कपड़े को गुंथकर तैयार की जाती थी किन्तु बाद चांदी की बनी आटो का उपयोग करने लगे। साथ ही आजकल इसका प्रयोग कम हो गया है। सीताराम लालस ने अपने शब्दकोश में आटी का उल्लेख आटी-डोरा के सन्दर्भ में किया है।

“कर में कांकणियां जसदा गल काटी

अद्भूद् मोरा पर लुडतौड़ी आटी”¹¹

इस दोहे के अनुसार हाथ में कांकणियां व गले में जसदा कण्ठी अच्छी लगती है उसी प्रकार सिर पर झुकती आटी बहुत सुन्दर लगती है। मारवाड़ के ग्रामीण क्षेत्र की राईका ढाणियों में मैंने शोधयात्रा के दौरान कई महिलाओं को आटी पहने देखा।

मारवाड़ के राईका महिलाओं की विशेष पहचान का प्रतिक चूड़ा¹² है। यह प्रारम्भ में हाथी दांत से निर्मित होते थे। यह मुख्यतः उच्च जाति की महिलाएं ही पहनती थी जो मारवाड़ की राईका महिलाओं की उच्च स्थिति का द्योतक है। एक के ऊपर एक सभी बिल्लियों को रखा जाए तो यह एक गोलाकार गुम्बद या पिरामिड के समान दिखाई देता है। आजकल यह चूड़ा प्लास्टिक का बना आता है।¹³ यह दोनों हाथों में कन्धे से कलाई तक पहना जाता है। इसमें बहुत सारी सफेद बिल्लियां होती हैं। इनकी संख्या अलग-अलग होती है। आमतौर पर 64 बिल्लियां पहनी जाती हैं। चूड़ा पहनने के आधार पर हाथ को दो भागों में विभाजित



नाथी देवी आटी पहने हुए व नीचे आटी का चित्र

किया जाता है। एक कलाई से ऊपर कोहनी तक तथा दुसरा कन्धे से कोहनी तक। दाएं हाथ में कन्धे के नीचे एवं कोहनी से ऊपर 25 तथा दुसरे हाथ में भी कन्धे के नीचे एवं कोहनी से ऊपर तक 25 सफेद बिल्लियां पहनी जाती हैं। अर्थात् दोनों हाथों में कन्धे से कोहनी तक कुल 50 बिल्लियां पहनी जाती हैं। साथ ही दोनों हाथों की कलाईयों में 14 (7-7) बिल्लियां पहनी जाती हैं। यह चूड़ा विवाहित एवं सुहागन राईका

स्त्रियां ही पहनती है।¹⁴

ओरणों (ओढ़णी), मारवाड़ में स्त्रियों द्वारा ओढ़ा जाने वाला वस्त्र है।¹⁵ मारवाड़ की रबारी (राईका) स्त्रियां अपने शरीर को पूर्णरूप से ढकने के लिए सिर पर ओरण ओढ़ती हैं। मारवाड़ में ओरण राईका महिला के लिए सम्मान का प्रतिक है।¹⁶ ओरण कुरती व कांचली को ढकता है। ओरण लाल, गुलाबी, पीले जैसे विविध रंगों के होते थे। ये ओरण सुती और माटे होते थे इनके किनारे पर नीले, स्वर्ण जैसा पिले व आसमानी रंगों का गोटा या फीत लगी होती थी। गोटे की चौड़ाई के आकार में समयानुसार परिवर्तित होता गया। ओरण¹⁷ सुती वस्त्र से बना गहरे रंग का होता था। ओरण के बीच में गोटा पत्ती के फूल-पतियां बनी होती थी जिन्हें सम्भवतया हाथ से बनाया जाता था। विवाहित और विधवा राईका (रबारी) स्त्री के ओरण में भी अन्तर था। मारवाड़ की विवाहित राईका (रबारी) महिलाएं विधवाओं के रंगों को छोड़कर विभिन्न रंगों एवं फूल-पतियों से जड़े ओरण ओढ़ती थी। किन्तु विधवा राईका (रबारी) महिलाएं विधवा ओढ़नी और दामणी जैसे ओरण ओढ़ती थीं।¹⁸

कुरती¹⁹-कांचली²⁰ भी मारवाड़ की राईका (रबारी) महिलाओं के परिधान का प्रमुख अंग रहा है। मारवाड़ में आज भी महिलाएं कुरती और कांचली पहनती हैं। महिलाओं द्वारा कुरती और कांचली दोनों शरीर के मध्य भाग (गले से नीचे का भाग और कमर के ऊपर के शरीर) पर पहना जाता है। कांचली विशेषतः महिलाओं के स्तन को ढकने के लिए पहनी जाती है।



घाघरा मारवाड़ की राईका महिलाओं द्वारा कमर से नीचे पहना जाने वाला एक वस्त्र है। पहले मारवाड़ की सभी राईका महिलाएं टुकड़ी के घाघरे पहनती थी। यह मारवाड़ की राईका (रबारी) महिलाओं की पहचान का विशेष प्रतिक है। यह आधुनिक स्कर्ट के समान है। किन्तु मारवाड़ की राईका स्त्रियों के घाघरे कई प्रकार के होते हैं। जैसे 'छीट का घाघरा', 'टुकड़ी का घाघरा' इत्यादि प्रमुख हैं। ये घाघरे मोटे और सुती कपड़े बने होते के थे। मारवाड़ की कुंवारी राईका युवतियां एवं विवाहित महिलाएं दोनों ही छीट के घाघरे पहनती थीं। जिसमें नीचे की ओर मगजी व गोटा दिया होता था। यह गोटा या मगजी मुख्यतः नीले व गुलाबी रंग की होती थी। विवाहित राईका महिला छीट के घाघरे को भी गोटा पत्ती से जड़ कर पहनती थी। कालान्तर में समय के साथ कपड़े के रंगों की विविधता देखने को मिलती है।²¹

मारवाड़ के राईकों के पहनावों में पांच वस्तुएं प्रमुख हैं। सिर पर साफा/पोतिया, बदन पर अगारकी और चोला, कन्धे पर अंगौछा, कमर से नीचे सफेद धोती तथा पैरों में जूती (पगरकी) प्रमुख हैं।²² जोधपुर से 40 कि.मी. बावड़ी गांव के राईकों की बासनी नामक ढाणी से प्राप्त राईका जुंझारों के शिलालेखों में ऊंट सवार राईका के पहनावे को देखा जा सकता है।²³ मारवाड़ के मारू राईका एवं गोडवाड़ के रबारियों के पहनावे में भी अन्तर स्पष्ट दिखायी देता है। यह अन्तर इनके सिर से लेकर पांव तक के वस्त्रों को पहनने के तरीकों में देखा जा सकता है।²⁴



जूतियां पैरों में पहनी जाने वाली वस्तु है। मारवाड़ में पुरुषों की तरह महिलाएं भी

जूतियां पहनती थी और आज भी पहनती है। जूतियों को पगरकी, मोजड़ी, तथा खालड़ा रा लिकतर (खाल अर्थात् चमड़े से बने होने के कारण) भी कहा जाता है। मारवाड़ में राईका जाति के पुरुष व महिलाओं दोनों की जूतियों में अन्तर है। साथ ही राईका महिलाओं की जूतियां भी अवस्था के अनुसार भी अलग अलग होती है। बुजुर्ग राईका स्त्री-पुरुष दोनों की पगरकियां साधारण और चमड़े की बनी होती हैं। दूसरी ओर राईका युवा एवं युवतियां विभिन्न रंगों की कसीदायुक्त पगरकियां धारण करते थे। ये पगरकियां बहुत मजबूत होती थी जो मारवाड़ जैसे मरुस्थलीय क्षेत्र में उपयोगी सिद्ध होती है। इनका निर्माण चमार जाति के लोग करते थे जो चमड़े को हाथों से सिलकर जूतियां तैयार करते थे।²⁵ मारवाड़ के ग्रामीण क्षेत्र में गाए जाने वाले स्थानीय गीतों में भी महिलाओं द्वारा जूतियां पहनने का उल्लेख मिलता है। क्षेत्रीय सर्वेक्षण के दौरान किए गए साक्षात्कार में नाडसर गांव की एक महिला द्वारा गाए गए गीत के बोल—

“थे यो पाल राजा बिराजों मोची जी रे हाट

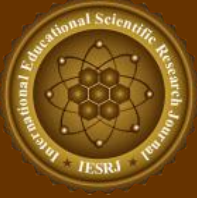
बन्दोला (जूतियां) मोलावों सोढी राणी रे कारणे”²⁶

इस प्रकार निष्कर्षतः मारवाड़ के राईका समाज का इतिहास व संस्कृति बहुत ही प्राचीन और विशेष है। मारवाड़ के राईका-राईकाणी को उसकी वेशभूषा से पहचाना जाता है। इस शोधपत्र के द्वारा इस जातीय समाज के दबे इतिहास व अप्रकाशित संस्कृति को प्रकाश में लाने का प्रयास किया गया है। इस समाज के इतिहास व संस्कृति पर पूर्व में बहुत कम शोध हुआ है। कुछेक शोध किए गए किन्तु उनमें भी धार्मिक जीवन को दिखाया गया है। साथ ही वे शोध अंग्रेजी व फ्रेंच जैसी विदेशी भाषाओं में हैं जिसे आम भारतीय नहीं पढ़ सकता। इस शोधपत्र में इस समाज की पहचान इसके पहनावे का वर्णन किया गया है। जिसमें इनके महिलाओं के ओढ़नी, कुरती कांचली, घाघरा, आटी व चूड़े का विशेष रूप से वर्णन किया गया है।

REFERENCES

1. उज्जवल, मांगीलाल : राव बही लाम्बियां, पाली
2. रेड, विश्वेश्वर नाथ : मारवाड़ का इतिहास, भाग- 2, पृ. सं. 61, 93,
3. चन्द्र, प्रो. सतीश, रघुवीरसिंह व घनश्यामदत्त शर्मा : जोधपुर हुकुमत री बही, पृ. सं. 233,
4. रेड, विश्वेश्वर नाथ : मारवाड़ का इतिहास, भाग- 2, पृ. सं. 409-416,
5. भाटी, डॉ. हुकुमसिंह : गढ जोधपुर घरे की बही, पृ. सं. 11, 16, 35, 47, 59 विक्रम संवत् 1863-64,
6. उज्जवल, दिलीप राव : राव बही, लाम्बियां गांव, जैतारण, पाली
7. कपड़ा वगैरे री जमा खरच री बही : खेजड़ा ठिकाना, सं. सं. 164, वि. सं. 1918-24,
8. रोहित री कचेड़ी रो रंजनामों : रोहित ठिकाना, सं. सं. 1107, विक्रम संवत् 1911,
9. (1) प्रबल, सेण्डराईन : आज के खानाबदोश, पृ. सं. 59

- (2) हकीकत बही, वि. सं. 1820-1840
- (3) ब्याह बही नं. एफ-एफ 127, 129, 133
10. हरदयाल, रायबहादुर मुंशी : रिपोर्ट मरदुमशुमारी राज मारवाड़ 1891, पृ. सं. 571
11. लालस, सीताराम : राजस्थानी सबदकोस, भाग-1, पृ. सं. 191
12. (1) गहलोत, सुखवीरसिंह : राजस्थान के रीतिरिवाज, पृ. सं. 187
(2) नगर, महेन्द्रसिंह : मारवाड़ के राजवंश की सांस्कृतिक परम्परा, भाग-2, पृ. सं. 332
13. प्रबल, सेण्डराईन : आज के खानाबदोश, पृ. सं. 58
14. व्यक्तिगत साक्षात्कार : इन्द्रा देवी पत्नि स्व. भीकाराम गागल राईका, उम्र-65 वर्ष, गांव मलार, जोधपुर
15. लालस, सीताराम : राजस्थानी सबदकोस भाग-1, पृ. सं. 368
16. श्रीवास्तव, विनय कुमार : रिलिजियस रेन्युनसिएशन ऑफ पेस्टोरल पीपल, पृ. सं. 49
17. गहलोत, सुखसिंह (सम्पादक) : नवा कपड़ा रा कोठार री बही- विजयसिंह 1849
18. व्यक्तिगत साक्षात्कार : पप्पू देवी पत्नि स्व. मोडाराम आल राईका, उम्र-65 वर्ष, कास्टी गांव, जोधपुर
19. लालस, सीताराम : राजस्थानी सबदकोस, भाग-1, पृ. सं. 523
20. नगर, महेन्द्रसिंह : मारवाड़ के राजवंश की सांस्कृतिक परम्परा, भाग-2, पृ. सं. 318
21. व्यक्तिगत साक्षात्कार : हंसा देवी पत्नी खीयाराम राईका, उम्र-70 वर्ष, गांव रास, जिला पाली
22. राठी, डॉ. दिनेश : अठारवीं सदी के प्रारम्भ में मारवाड़, पृ. सं. 202
23. राईकों की बासनी के जुंझारजी का शिलालेख, वि. सं. 1735
24. प्रबल, सेण्डराईन : आज के खानाबदोश, पृ. सं. 62-63
25. व्यक्तिगत साक्षात्कार : पप्पू देवी पत्नि स्व. मोडाराम आल राईका, उम्र-65 वर्ष, कास्टी गांव, जिला, जोधपुर
26. व्यक्तिगत साक्षात्कार : नाथीदेवी पत्नि भंवरलाल आल राईका, उम्र-65 वर्ष, नाडसर गांव, जिला जोधपुर



गंगानगर जिले में बढ़ते नगरीकरण का भौगोलिक अध्ययन

नवदीप संधू

शोधार्थी, भूगोल विभाग, डॉ. भीमराव अंबेडकर राजकीय स्नातकोत्तर महाविद्यालय, श्रीगंगानगर (राजस्थान)

डॉ. राजेंद्र कुमार

सह-आचार्य, भूगोल विभाग, डॉ. भीमराव अंबेडकर राजकीय स्नातकोत्तर महाविद्यालय, श्रीगंगानगर (राजस्थान)

ABSTRACT:

नगरीकरण नगरीय क्षेत्रों का भौतिक विकास है, जो नगरो को विकास, जनसंख्या वृद्धि, निर्मित क्षेत्र में वृद्धि, जनसंख्या का उच्च घनत्व आर शहरी जीवन शैली के मनोवैज्ञानिक चरण की ओर ले जाता है। नगरीकरण प्रवास का एक कारण और प्रभाव है। बेहतर शैक्षिक अवसर, नौकरी के अवसर, स्वास्थ्य सुविधाएँ और उच्च जीवनस्तर नगरीकरण की बढ़ती प्रवृत्ति में योगदान देते हैं। 21वीं सदी में विश्व के अधिकांश देशों में ग्रामीण क्षेत्रों से नगरीय क्षेत्रों की ओर जनसंख्या का तेजी से पलायन देखा गया। 1900 में विश्व की मात्र 13 प्रतिशत नगरीय जनसंख्या थी, जो 2011 में बढ़कर 52 प्रतिशत हो गई। हालाँकि, विकसित और विकासशील देशों के बीच नगरीकरण का पैटन बहुत असमान देखा गया है। विकसित देशों में जनसंख्या का एक बड़ा हिस्सा विकासशील देशों की तुलना में नगरीय क्षेत्रों में रहता है। दूसरी ओर, विकासशील देशों की अधिकांश नगरीय आबादी एशियाई और अफ्रीकी देशों में केन्द्रित है। ऐतिहासिक रूप से, पश्चिमी दुनिया में औद्योगिक क्रान्ति के मद्देनजर नगरीकरण की प्रक्रिया तेज हो गई, जिससे संचार और परिवहन जैसी बुनियादी सुविधाओं का विस्तार हुआ, जिसने ग्रामीण से नगरीय क्षेत्र में प्रवास को बढ़ाया। नगरीकरण विकास का प्रतीक है, यदि किसी क्षेत्र में नगरीकरण की गति तीव्र है तो इस आधार पर वहाँ के विकास का अनुमान लगाया जा सकता है। नगरीकरण एक वैश्विक प्रक्रिया है जो ना केवल नगरीय क्षेत्रों में जनसंख्या घनत्व में वृद्धि कर देती है वरन् ग्रामीण क्षेत्रों में जनसंख्या कम होने का प्रमुख कारण भी है। नगरीकरण की प्रवृत्ति के फलस्वरूप शहरी क्षेत्रों में औद्योगिकीकरण का भी केन्द्रीकरण हो रहा है जिसके फलस्वरूप अनेक पर्यावरणीय समस्या उत्पन्न हो रही हैं। प्रस्तुत शोध पत्र में गंगानगर जिले में बढ़ते नगरीकरण के स्तर का विश्लेषणात्मक अध्ययन प्रस्तुत करने का प्रयास किया गया है साथ ही जिले में नगरीकरण के बढ़ने से उत्पन्न विभिन्न प्रभावों एवं इसके प्रमुख कारणों का भी विश्लेषण करने का प्रयास किया गया है।

KEYWORDS:

औद्योगिकीकरण, नगरीकरण, वैश्विक प्रक्रिया, जनसंख्या वृद्धि

परिचय:

नगरीकरण को शहरीकरण के नाम से भी जाना जाता है तथा नगरीकरण को वर्तमान समय में एक वैश्विक प्रक्रिया के रूप में देखा जाता है। नगरीकरण की दर क्षेत्र विशेष की भौगोलिक स्थिति पर भी निर्भर करती है, यदि किसी क्षेत्र में भौगोलिक दशाएँ अनुकूल नहीं होंगी तो निश्चित ही वहाँ नगरीकरण की प्रक्रिया धीमी अथवा शून्य होगी। वस्तुतः नगरीकरण विकास का प्रतीक है, यदि किसी क्षेत्र में नगरीकरण की गति तीव्र है तो इस आधार पर वहाँ के विकास का अनुमान लगाया जा सकता है। नगरीकरण एक वैश्विक प्रक्रिया है जो ना केवल नगरीय क्षेत्रों में जनसंख्या घनत्व में वृद्धि कर देती है वरन् ग्रामीण क्षेत्रों में जनसंख्या कम होने का प्रमुख कारण भी है। नगरीकरण की दर क्षेत्र विशेष की भौगोलिक स्थिति पर भी निर्भर करती है, यदि किसी क्षेत्र में भौगोलिक दशाएँ अनुकूल नहीं होंगी तो निश्चित ही वहाँ नगरीकरण की प्रक्रिया धीमी अथवा शून्य होगी। नगरीकरण की प्रवृत्ति के फलस्वरूप शहरी क्षेत्रों में औद्योगिकीकरण का भी केन्द्रीकरण हो रहा है जिसके फलस्वरूप अनेक पर्यावरणीय समस्याएँ उत्पन्न हो रही हैं। वर्तमान समय में नगरीकरण को विकास का द्योतक माना जाता है, बढ़ती जनसंख्या के अनुपात में रोजगारों का सृजन नहीं हो पाना नगरीकरण को प्रेरित करता है। रोजगार की तलाश में जनसमुदाय ग्रामीण क्षेत्रों से नगरीय क्षेत्रों की तरफ प्रवास करता है। ग्रामीण क्षेत्रों में धीरे धीरे शून्य जनसंख्या की स्थिति उत्पन्न होना तथा नगरीय क्षेत्रों में जनसंख्या घनत्व बढ़ने के फलस्वरूप आवास इत्यादि की समस्या का बढ़ना आदि को वर्तमान समय में नगरीकरण के दुष्परिणामों के रूप में देखा जा सकता है। यद्यपि नगरीकरण के फलस्वरूप क्षेत्र के जनसंख्या घनत्व में वृद्धि होती है, परन्तु इस संदर्भ में दूसरा महत्वपूर्ण तथ्य यह भी है की केवल जनसंख्या घनत्व में वृद्धि होना मात्र ही नगरीकरण का परिचायक नहीं है। वस्तुतः ऐसे बहुत से कारक हैं जो नगरीकरण की प्रवृत्ति को प्रभावित करते हैं जिनमें उपयुक्त जलवायु का होना, आवागमन के साधनों का विकास, व्यापार करने की प्रवृत्ति में वृद्धि, नगरीय सुविधाओं का आकर्षण आदि प्रमुख हैं। इसके साथ ही एक अन्य महत्वपूर्ण कारण यह भी कहा जा सकता है की नगर राजनैतिक गतिविधियों के सशक्त केंद्र होते हैं जो की इनके विकास को बड़े पैमाने पर प्रेरित करता है। गंगानगर जिला जो की राजस्थान राज्य का एक महत्वपूर्ण जिला है यह जिला भी नगरीकरण की प्रक्रिया से अछूता नहीं है। जिले में नगरीकरण के स्तर का मूल्यांकन इस आधार पर किया जा सकता है की यहाँ के प्रमुख नगरीय केन्द्रों में जनसंख्या का घनत्व निरंतर बढ़ रहा है।

अध्ययन क्षेत्र रू

राजस्थान के उत्तरी छोर पर स्थित गंगानगर जिला भौतिक दृष्टि से राज्य के पश्चिमी शुष्क रेतीला मैदान में स्थित है। गंगानगर की स्थापना सन 1910 में बीकानेर के महाराज गंगासिंह के द्वारा की गई थी। इसको प्राचीन समय में राम नगर के नाम से जाना जाता है। लेकिन 1927 में गंगासिंह ने गंगनहर के निर्माण के समय गंगासिंह ने रामनगर का नाम बदलकर गंगानगर कर दिया। गंगानगर जिला 28° 4' से 30° 6' उत्तरी अक्षांश

तथा 72° 2' से 75° 3' पूर्वी देशान्तर के मध्य स्थित है। जिले की उत्तरी सीमा फाजिल्का (पंजाब), पूर्वी सीमा हनुमानगढ़ (राजस्थान), दक्षिणी सीमा बहावलपुर (पाकिस्तानी पंजाब) द्वारा सीमांकित है। जिले का कुल क्षेत्रफल 11,154.66 वर्ग किमी. है जो राज्य के कुल क्षेत्रफल का 3.26 प्रतिशत है। गंगानगर जिला प्रशासनिक दृष्टि से 8 तहसीलों तथा 2 उपतहसीलों यथा गंगानगर, श्रीकरणपुर, पदमपुर, रायसिंहनगर, सूरतगढ़, विजयनगर, अनुपगढ़ एवं सादुलशहर तथा घड़साना, बींझबायला में बंटा हुआ है। गंगानगर जिले में कुल 344 ग्राम पंचायतें और 3061 गाँव हैं, जो राजस्थान में सबसे ज्यादा है। 2011 की जनगणना के अनुसार जिले की कुल जनसंख्या की दृष्टि से भारत के 640 जिलों में गंगानगर का 235 वां स्थान है और जिले का जनसंख्या घनत्व 179 व्यक्ति प्रति किलोमीटर है। जिले में ग्रामीण जनसंख्या 1,433,858 व्यक्ति तथा नगरीय जनसंख्या 535,662 व्यक्ति है। जिले की साक्षरता दर 70.25 प्रतिशत है।

अध्ययन के उद्देश्य:

प्रस्तुत शोध पत्र के प्रमुख उद्देश्य निम्न हैं—

- जिले में नगरीकरण के स्तर का आंकलन करना
- जिले में नगरीकरण की प्रवृत्ति का विश्लेषण करना
- नगरीकरण हेतु उत्तरदाई विभिन्न कारणों का विश्लेषण करना

आंकड़ों के स्रोत:

प्रस्तुत शोध पत्र मुख्यतः द्वितीयक आंकड़ों के आधार पर तैयार किया गया है, इस हेतु आंकड़ों का संकलन विभिन्न प्रकार के रेपोर्ट्स यथा जिला सांख्यिकी रूपरेखा, श्रीगंगानगर, जिला गजेटियर, श्रीगंगानगर आदि से किया गया है, साथ ही नवीन आंकड़ों के संकलन हेतु विभिन्न प्रकार के ऑनलाइन स्रोतों से भी सहायता ली गयी है।

महत्वपूर्ण साहित्यों की समीक्षा:

1. लोकेश त्रिपाठी, सुनील कुमार (2019), ने अपने शोध पत्र 'शब्दहमे पद संदक नतबिम जमउचमतजनतम कनम जव पदकनेजतपंसप्रजपवद नतइवप्रजपवद नेपदह हमवचंजपंस जमबीदवसवहपमे रू । बेंमे जनकल व ईपसूतं ए लेंजीदंश मे नगरीकरण व औद्योगिकीकरण के तापमान परिवर्तन पर प्रभाव का अध्ययन किया है। भीलवाड़ा एक कपड़ा उद्योग आधारित शहर है जहाँ उद्योगीकरण और नगरीकरण हुआ है और धीरे-धीरे विकसित हुआ है। अध्ययन का अद्देश्य शहर के औद्योगिकीकरण और नगरीकरण के कारण भूमि की सतह के तापमान में परिवर्तन को ट्रैक करना

है। क्षेत्र का औसत तापमान 1999 में 31.17^व से. ग्रे. था जो 2009 में 34.46^व से. ग्रे. और 2018 में 32.29^व से. ग्रे. हो गया। 1999-2009 की समय अवधि के दौरान तापमान अत्यधिक (3.29^व से. ग्रे.) बढ़ गया। हालांकि, 2009-2019 की समयवधि में, हम देख सकते हैं कि तापमान में 2.17^व से. ग्रे. की गिरावट आई है। अध्ययन से पता चलता है कि आद्योगीकरण व नगरीकरण भूमि की सतह के तापमान को कैसे नियंत्रित करते हैं।

- गीतिका चुघ (2019)**, ने अपने शोध पत्र श्रद्धांजलिपत्र पद अंदरुनदहंत रू जतमदके दक चंजजमतदेश में गंगानगर के नगरीकरण का अध्ययन प्रस्तुत किया है। इस पेपर का उद्देश्य राजस्थान के गंगानगर जिले में नगरीकरण प्रक्रिया और प्रवृत्ति और उसके प्रभाव का अध्ययन करना है। यह गंगानगर के तहसीलों के नगरीकरण स्तर का भी अध्ययन करता है। यह गाँव रामनगर से गंगानगर टाउन के उद्भव का पता लगाता है जो सबसे पुरानी सभ्यता के स्थल में से एक है। जनसंख्या डेटा भारत की 1991, 2001 और 2011 की जनगणना से लिया गया है। नगरीकरण, प्रवृत्तियों और प्रक्रियाओं पर प्रासंगिक रिपोर्टों और उपलब्ध साहित्य से भी जानकारी प्राप्त की जाती है। नगरीकरण की प्रवृत्ति को दर्शाने के लिए रेखांकन और उपकरणों का उपयोग किया जाता है। बढ़ती हुई जनसंख्या के विभिन्न कारणों की जांच की गई है और बुनियादी ढांचे और नागरिक सुविधाओं पर उनके प्रभाव की जांच की गई है।
- आर. चेतन वर्मा, जितेन्द्र सिंह, आलोक रंजन (2020)**, श्वनजनतम नतइंदप्रंजपवद नेपवद बसमंद मदमतहल हमदमतंजपवद चसंदजेश यह पेपर ऐसे विकल्पों के बारे में है जो नवीनकरणीय स्रोतों का उपयोग करके किरावती और पोर्टेबल तरीकों से स्वच्छ ऊर्जा उत्पन्न करता है ताकि एक बस्ती की ऊर्जा मांगों की भरपाई की जा सके और उन्हें पोर्टेबल तरीके से बुनियादी शहरी सुविधाएं प्रदान की जा सकें। जलवायु और पर्यावरणीय परिस्थितियों को ध्यान में रखते हुए हमें ऊर्जा उत्पादन के लिए स्वच्छ ईंधन के इस दृष्टिकोण पर ध्यान केंद्रित करने की आवश्यकता है, यह दृष्टिकोण हरित शहरीकरण के लिए समाधान प्रदान करने के लिए प्राकृतिक संसाधनों और कई तकनीकी उपकरणों पर निर्भर करता है।

जिले में नगरीकरण का स्तर:

गंगानगर जिले में पिछले 25 वर्षों के आंकड़ों को देखें तो जिले में नगरीकरण का प्रभाव स्पष्ट दिखाई देता है। इस समयवधि में जिले की जनसंख्या में विशेषकर नगरीय जनसंख्या में रिकॉर्ड वृद्धि हुई है। वर्ष 2001 एवं 2011 के जनसंख्या के आंकड़ों का अध्ययन करने पर ज्ञात होता है कि जिले के नगरीय क्षेत्रों में कुल जनसंख्या में नगरीय जनसंख्या का प्रतिशत वर्ष 2001 की तुलना में वर्ष 2011 में काफी बढ़ा है। उदाहरण के तौर पर जिले के घड़साना नगर में वर्ष 2001 में नगरीय जनसंख्या का प्रतिशत 6.21 था जो वर्ष 2011 में 17.45 हो गया। एवं संभावना है कि वर्ष 2021 के जनगणना के आंकड़ों में यह प्रतिशत और अधिक बढ़ेगा। वस्तुतः यही स्थिति जिले के अन्य नगरों के संदर्भ में भी पायी गयी है। बढ़ते नगरीय विस्तार के कारण इन नगरीय केन्द्रों की आकारिकी में भी व्यापक परिवर्तन हो रहे हैं, जो जिले के विकास को सकारात्मक एवं नकारात्मक दोनों ही तरह से प्रभावित कर रहे हैं।

जिले में नगरीकरण की प्रवृत्ति:

गंगानगर जिले की अर्थव्यवस्था मूलतः कृषि आधारित रही है, एवं नहरी तंत्र के आगमन के पश्चात क्षेत्र में सिंचाई सुविधाओं के विस्तार के फलस्वरूप जिले की अर्थव्यवस्था में उत्तरोत्तर वृद्धि हुई है, परन्तु सूक्ष्मता से आंकलन करने पर ज्ञात होता है, जिले के प्रमुख नगरीय केन्द्रों में नगरीकरण की प्रक्रिया बढ़ने का प्रमुख उत्तरदायी कारक भी यही रहा है। जिले के छोटे-छोटे कस्बे जिनकी चारों तरफ की भौगोलिक दशाएँ नगरीय विस्तार के अनुकूल थीं, आधारभूत सुविधाओं के बढ़ने से इनमें नगरीकरण की प्रवृत्ति तेज हुई है। वर्तमान समय में जिले में ऐसे छोटे-बड़े कई नगरीय केंद्र देखे जा सकते हैं जिनमें प्रत्येक जनगणना वर्ष में नगरीय विस्तार तेज गति से हुआ है। गंगानगर जिले में नगरीकरण की प्रवृत्ति को देखें तो आंकड़ों से ज्ञात होता है कि वर्ष 2001 में जिले में नगरीय जनसंख्या का प्रतिशत 25.33 था, जो वर्ष 2011 में बढ़कर 27.19 प्रतिशत पाया गया, इस प्रकार जिले में नगरीय जनसंख्या में 1.86 प्रतिशत की वृद्धि दर्ज हुई, जबकि राजस्थान राज्य में इस दशक में यह वृद्धि दर 1.49 प्रतिशत रही। अर्थात् गंगानगर जिले में नगरीकरण की वृद्धि राज्य के प्रतिशत से भी अधिक पायी गयी है, एवं संभावना है कि नवीन जनगणना के आंकड़ों में यह वृद्धि और तीव्र पायी जाएगी।

बढ़ती नगरीकरण की प्रवृत्ति के कारण जिले में विभिन्न प्रकार की पर्यावरणीय समस्याएँ उत्पन्न हो गयी हैं, जिनमें जल, ध्वनि एवं वायु प्रदूषण तो प्रमुख हैं ही, इसके अलावा जिले में विभिन्न प्रकार के अपशिष्टों के निस्तारण की समस्या भी विकराल होती जा रही है, जिस कारण जिले के बाहरी क्षेत्रों में मलीन बस्तियों का विकास भी होने लगा है। जिले में बढ़ती इन समस्याओं का प्रत्यक्ष प्रभाव जिले के जनसमुदाय पर पड़ रहा है, जिससे जिले में जीवन स्तर निम्न होने की संभावना है। बढ़ते नगरीकरण का प्रभाव

जिले में कृषि क्षेत्र में भी पड़ा है। जिले में औद्योगिक विकास के कारण कृषि भूमि का क्षेत्रफल भी कम हुआ है, जिससे जिले का कृषि विकास प्रभावित हो रहा है। जिले में आजीविका के प्रमुख साधन कृषि व उस पर आधारित उद्योग हैं परन्तु निरन्तर औद्योगिक विकास ने इस जिले में नगरीकरण को बढ़ावा दिया है।

निष्कर्ष:

उपरोक्त अध्ययन के पश्चात निष्कर्ष के आधार पर यह कहा जा सकता है कि गंगानगर जिले में पिछले कुछ दशकों से नगरीकरण की प्रवृत्ति में वृद्धि देखने को मिलती है, जिले में वर्ष 1981 से 2011 के दशकों में नगरीकरण की प्रवृत्ति तीव्र गति से बढ़ी है तथा जिले के प्रमुख नगरीय क्षेत्रों में नगरीकरण का विस्तार निरन्तर हो रहा है, जिस कारण जिले की नगरीय आकारिकी में भी परिवर्तन हो रहा है। जिले में नगरीकरण के प्रवृत्ति के बढ़ने से उद्योगों का भी निरन्तर विस्तार हुआ है जिसका स्पष्ट प्रभाव कृषि भूमि पर देखने को मिलता है। साथ ही नगरीकरण की बढ़ती प्रवृत्ति के कारण जिले में विभिन्न प्रकार के प्रदूषणों यथा जल प्रदूषण, वायु प्रदूषण, ध्वनि प्रदूषण एवं कचरा निस्तारण की समस्याएँ उत्पन्न हुई हैं, साथ ही नगरीय जनसंख्या में वृद्धि से जिले में मलीन बस्तियों का विकास भी हो रहा है। अतः वर्तमान समय में जिले में बढ़ते नगरीकरण की दर को नियंत्रित करने तथा जिले के सुनियोजित विकास हेतु कठोर सरकारी एवं प्रशासनिक प्रयास किए जाने की आवश्यकता है ताकि भविष्य में यह समस्या विकराल रूप ना ले सके।

REFERENCES

- Chouhan, B. P., & Kannan, M., (2019). Impacts of Urbanization on Land Use Pattern and Environment: A Case Study of Ajmer City, Rajasthan. *Asian Review of Social Sciences*, 8(1), 87-91, ISSN: 2249-6319.
- Chugh, G., (2019). Urbanization in Ganganagar: Trends and Patterns, *International Journal of Research and Analytical Reviews*, 6(1), 182y-184y, ISSN: 2348-1269, PRINT ISSN: 2349-5138.
- Kumar, M., Sharif, M. & Ahmed, S., (2020). Impact of urbanization on the river Yamuna basin, *International Journal of River Basin Management*, 18(4), 461-475, DOI: [10.1080/15715124.2019.1613412](https://doi.org/10.1080/15715124.2019.1613412)
- Mathew, A., Chaudhary, R., Gupta, N., Khandelwal, S., & Kaul, N. (2015). Study of urban heat island effect on Ahmedabad City and its relationship with urbanization and vegetation parameters. *Int. J. Comput. Math. Sci*, 4, 126-135, ISSN: 2347-8527.
- Sadashivam, T., & Tabassu, S. (2016). Trends of urbanization in India: issues and challenges in the 21st century. *International Journal of Information Research and Review*, 3(5), 2375-2384.

6. Tripathi, L., & Kumar, S. (2019). Changes in Land Surface Temperature due to Industrialization & Urbanization using geo-spatial technologies-A case study of Bhilwara city, Rajasthan. *Journal of Emerging Technologies and Innovative Research*, 6(5), 2387-2394, ISSN: 2349-5162.

7. Verma, A. C., Singh, J., & Ranjan, A., (2020). Future Urbanization Using Clean Energy Generation Plants,

International Journal of Scientific and Technology Research, 9(2), 2972-2975, ISSN: 2277-8616.



कृषि एवं कृषि पर आधारित उद्योगों की चुनौतियों का विशलेषणात्मक अध्ययन

रामदेव गुर्जर

(बी.ए., एल.एल.बी., एल.एल.एम.) शोध विद्यार्थी, भगवन्त विश्वविद्यालय अजमेर (राजस्थान)

डॉ. दुष्यन्त कुमार

विधि विभाग (सहायक आचार्य)

ABSTRACT:

KEYWORDS:

1. भूमिका :-

भारत देश विश्व का एक मात्र देश है जहां अधिकाधिक कृषि भूमि पर आधारित है कृषि पर निर्भर रहकर ही उद्योग का विकास होना सम्भव है देश में जब कृषि का विकास होगा या कृषि उत्पाद अधिक उपलब्ध होंगे, जिन के प्रयोग के लिये उद्योग स्थापित करने पड़ेंगे। देश का एक भाग जहां पर उत्पाद कम हो वहां भोजन के लिये यातायात तथा ढुलाई की आवश्यकता पड़ेगी। अधिक अनाज को संभालने के लिये गोदामों की आवश्यकता पड़ेगी। कृषि के साथ जुड़े कुछ उद्योग चीनी उद्योग, पटसन, शोलर उद्योग, कपड़ा उद्योग, शौलर तेल निकालने वाले कारखाने आदि इस तरह कृषि विकास उद्योगों के विकास में योगदान डालेंगे, परन्तु कृषि का विकास होता रहे इसलिये कृषि में कुछ उत्पादों की आवश्यकता पड़ेगी, जैसे ट्रैक्टर उद्योग, मशीनरी, खादे, कीटनाषक आदि रसायनों से सम्बन्धित उद्योग जिनके उत्पाद कृषि में प्रयोग होते हैं भारत में प्रत्यक्ष तौर पर 54: मजदूर कृषि में लगे हुये हैं भारत का कुल कृषि निर्यात 42 बिलियन डालर है। कृषि आधारित उद्योग देश के भीतर और बाहर प्रतिस्पर्धी लाभ की धारणा के अनुरूप हैं व अधिषेध ग्रामीण श्रम को रोजगार प्रदान करने के लिए एक सुरक्षा कवच की भूमिका निभा सकते हैं और ग्रामीण क्षेत्रों में बड़े पैमाने पर बेरोजगारी, प्रच्छन्न रोजगार की समस्याओं का समाधान कर सकते हैं यहां वास्तविक चुनौती यह है कि सरकार अपनी योजनाबद्ध और नीतिगत हस्तक्षेप को कितने प्रभावी ढंग से लागू करती है ताकि ग्रामीण क्षेत्रों में इसकी सामाजिक, आर्थिक संरचना, कृषि उत्पादन प्रणाली और बुनियादी कृषि विनिर्माण विषेषताओं की पहचान को कम किये बिना सर्वांगीण औद्योगिक विकास सुनिश्चित किया जा सके। विकासशील राष्ट्रों की आर्थिक नीतियों ने हमेशा न केवल उत्पाद आर उत्पादकता वृद्धि के माध्यम बल्कि प्रसंस्करण और विनिर्माण के माध्यम से कृषि उत्पादों में प्रणालीगत मूल्य संबंधन द्वारा की आय बढ़ाने की वकालात की है भारत की विशाल जनसंख्या अभी भी कृषि और सम्बद्ध गतिविधियों में लगी हुई है भारतीय किसान काफी हद तक असंगठित हैं वे अपने विपणन योग्य अधिषेध के निपटाने के लिये बहारी एजेन्सियों पर निर्भर रहते हैं ग्रामीण क्षेत्रों में पूंजीगत सम्पत्ति की बाजी के कारण उन्हें बिचोलियों/कमीषन एजेन्टों को अपनी उपज के लिये मजबूर होना पड़ता है। प्राथमिक कृषि उत्पादन से कम आय और प्रसंस्करण तथा कृषि मूल्य श्रृंखला में निवेश की कमी के कारण कृषि के मुनाफे में तेजी से कमी आई है एवं कृषि कार्य गम्भीर दबाव में आ गया है इसी प्रकार औपनिवेशिक काल में अग्रजों ने देश के परम्परागत उद्योगों को तहस-नहस कर दिया ब्रिटिश सरकार ने न तो बनाने का कोई प्रयास और न ही उनके स्थान पर आधुनिक उद्योगों की स्थापना के लिये कोई ठोस कदम उठाये यही नहीं सरकार ने तकनीकी शिक्षा प्रणाली, पूंजी, वित्त जैसी आवश्यक सुविधाओं की व्यवस्था में भी सक्रिय भाग नहीं लिया यहां तक की सरकारी खरीद के सिल-सिले में भी भारतीय उद्योगों को छोड़कर ब्रिटिश (विदेशी) उद्योगों को प्राथमिकता दी जाती थी ऐसी परिस्थितियों में देश में आधुनिक उद्योगों का विकास संभव नहीं था आज भारत में कृषि उद्योग सबसे महत्वपूर्ण आयाम है। जिसके द्वारा देश विकासशील से विकसित होने का प्रमाण सिद्ध कर सकता है देश का सर्वोत्तम विकास तभी संभव है जब तक कृषि व उद्योग का विकास नहीं होगा भारत का विकास संभव नहीं होगा।

2. कृषि आधारित उद्योग-परिभाषा और प्रकार :-

ग्रामीण क्षेत्रों और उनके आस-पास कृषि आधारित उद्योग का विकास कृषि को स्वीकार्य और आकर्षक बनाने तथा स्थिरता प्रदान करने की क्षमता रखता है "कृषि"

प्रो०ई०डब्ल्यू० जिम्मरमैन (E.W. Zimmermann) द्वारा लिखित बुक और "उद्योग" एक सर्वव्यापी अभिव्यक्ति है जिसमें विभिन्न औद्योगिक, प्रसंस्करण और विनिर्माण गतिविधियों का समावेश कृषि पर आधारित कच्चे माल पर होता है और उन गतिविधियों और सेवाओं को भी समाहित करता है जो इनपुट के रूप में कृषि से प्राप्त होती हैं कृषि और उद्योग किसी भी विकासशील राष्ट्र की विकास प्रक्रिया में उनकी परस्पर निर्भरता और आपसी सम्बन्धों के कारण एक दुसरे के पूरक हैं कृषि उद्योग को इनपुट प्रदान करती हैं और औद्योगिक उत्पादन का उपयोग कृषि में इसके उत्पादन और उत्पादकता आधार का विस्तार करने के लिये किया जाता है इस प्रकार कृषि उद्योग न केवल कृषि से प्राप्त कच्चे माल का उपयोग करने वाली गतिविधियों को शामिल करता है बल्कि उन्हें भी शामिल करता है जो आधुनिक कृषि व्यवसाय के लिये इनपुट भी प्रदान करता है इनपुट-आउटपुट अनुबन्धन और कृषि व उद्योग एक दुसरे पर आधारित होने के कारण कृषि उद्योग दो प्रकार के हो सकते हैं। (क) प्रसंस्करण उद्योग या कृषि आधारित उद्योग (ख) इनपुट आपूर्ति उद्योग या कृषि उद्योग न इस प्रकार प्राथमिक क्षेत्र के उत्पादन और उत्पादकता वृद्धि के लिये तैयार और विनिर्माण आदानों के माध्यम से कृषि समर्थन करने वाली एजेन्सियों को कृषि उद्योग कहा जाता है जबकी कृषि आधारित उद्योग प्रक्रिया और मूल्य ऐसे कृषि संसाधनों को जोड़ते हैं जिनमें जमीन और पेड़-पौधे, फल-सब्जियों इत्यादी के साथ-साथ उनके दिन-प्रतिदिन के कार्यों में उपयोग पशुधन शामिल है अन्तर्राष्ट्रिय मानक उद्योगिक वर्गीकरण ढांचे के अनुसार कृषि आधारित उद्योग में से खाद्य और पेय, कपड़ा, जूते और परिधान, चमड़, रबर, कागज और लकड़ी, तम्बाकू उत्पादन के विनिर्माण/ प्रसंस्करण शामिल हैं।

रॉबर्ट हिल्सन ने अपनी पुस्तक ब्वनदजतल दवज कमअमसवच हतपबनसजनतम पदकनेजतल के अध्याय 4 के पृष्ठ संख्या 13 में अंकित है कि "किसी भी देश के उत्थान एवं आत्म निर्भरता के उद्योग विकसीत करना आवश्यक है जिससे आम नागरीक देश की अर्थव्यवस्था को प्रगतीशील बना सकें। भूमि उत्पादन की वृद्धि भी हो सकें"

रॉबर्ट हिल्सन पुस्तक ब्वनदजतल दवज कमअमसवच हतपबनसजनतम पदकनेजतल

3. कृषि-आधारित उद्योगों को बढ़ावा क्यों?

भारत में विश्व की 10वीं सबसे बड़ी कृषि योग्य भूमि, 20 कृषि जयवायु क्षेत्र और 15 प्रमुख जलवायु जनगणना के आंकड़ों से पता चलता है कि वर्ष 2001 में देश में कुल कृषकों की संख्या 12.73 करोड़ से घटकर 11.88 करोड़ कृषक रह गई है इस का कारण प्रसंस्करण और विनिर्माण के माध्यम से मूल्य संवर्धन अपव्यय में कमी और वृद्धिशील आप पर पर्याप्त ध्यान दिये बिना भारतीय कृषि का अत्यधिक उत्पादोंमुखीकरण हो ना हो सकता है। भारतीय कृषि अनुसंधान परिषद के सैन्ट्रल इस्टीमेट ऑफ पोस्ट आर्वेस्ट इंजिनियरिंग एंड टेक्नोलोजी ने अपनी वर्ष 2015 की रिपोर्ट में "भारत में वस्तुओं और प्रमुख फसलों की कटाई और कटाई के उपरान्त होने वाली मात्रात्मक हानियों का आकलन" शिषर्क से रिपोर्ट दी है रिपोर्ट के अनुसार कृषि .जिंसों की कटाई और कटाई के बाद का नुकसान अनाज के लिये 4.65-5.99 प्रतिषत, दालों के लिये 6.36-8.41 प्रतिषत, तिलहन के लिये 3.08-9.96 प्रतिषत फलों के लिये 6.7-15.88

और सब्जियों के लिये 4.58–12.44 होते हैं मात्रात्मक नुकसान का कुल अनुमानित आर्थिक मूल्य 2014 की ओसत वार्षिक कीमत पर 9651 करोड़ रुपये पाया गया, इस प्रकार नुकसान को काफी हद तक कम करने आधुनिक कृषि प्रसंस्करण प्रौद्योगिक के संवर्धन और उसे अपनाने तथा ग्रामीण क्षेत्रों में अधिक संख्या में कृषि उद्योग की स्थापना करना समय की मांग है

कृषि अर्थव्यवस्था के समग्र विकास का यही सही अवसर है क्योंकि शायद ही 2 से 3 प्रतिषत कृषि वस्तुओं का प्रसंस्करण किया जाता है भारतीय कृषि में मौजूदा मूल्यों में आ रही कमी की परिदृश्य को ध्यान में रखते हुये ग्रामीण क्षेत्रों में निवेश करना आवश्यक है ताकि उपयुक्त बुनियादी ढांचे का विकास हो सके और ग्रामीण क्षेत्रों में तथा आस-पास के आधुनिक कृषि आधारित उद्योगों की स्थापना के लिये निजी, सार्वजनिक भागीदारी को आकर्षित किया जा सके।

कृषि में नवाचार : समृद्धि की ओर बढ़ते कदम लेखक : डॉ. सुरेन्द्र कोठारी, डॉ. एस.के. शर्मा, डॉ. रेखा व्यास

4. कृषि से उद्योगों की विशेषताएं :-

भारत में कृषि से उद्योग का विकसित करने के लिए तीन श्रेणियों में बाटा जा सकता है (1) फल एवं सब्जी प्रसंस्करण इकाइयों (2) चीनी, डेयरी, बेकरी, साल्टेड निकर्षण इकाइयों (3) कृषि : कृषि ओजारा, बीज उद्योग, सिंचाई उपकरण, उर्वरक कीटनाशक आदि के मशीनीकरण को शामिल करने वाली कृषि इनपुट निर्माण इकाइयों तालिका-2 में उपलब्ध जानकारीयों की समीक्षा से, भारत के कृषि आधारित उद्योगों की जटील और विविधतापूर्ण को दर्शाया गया है, ग्रामीण और कृषि आधारित उद्योग उत्पादन वितरण, विनिर्माण और विपणन चरणों में रोजगार के अवसर पैदा करने में मदद करते हैं तालिका-3 चुनिदा कृषि उद्योगों की प्रमुख विशेषताओं का परिक्षण करती है वर्ष 2017–2018 में कृषि आधारित उद्योगों का 45.3 प्रतिषत कुल शुद्ध मूल्य संवर्धन के लिये केवल 24.11 प्रतिषत साझा किया गया, भले की कुल श्रमिकों का 44.2 प्रतिषत इस क्षेत्र में लगे हुये थे इससे पता चलता है कि कृषि आधारित उद्योगिक परिदृश्य में स्थाई रूप से उपलब्ध संसाधनों और सरकार द्वारा विभिन्न सर्वसिद्धि-उन्मुख केन्द्रिय योजनाओं के माध्यम से किये गये प्रयासों के लाभों को पूरी तरह से भुनाया नहीं है वर्ष 2017–2018 में कुल 1.07 लाख कृषि आधारित उद्योगों में आसान मुद्दों की पहचान करने और समयबद्ध तरिके से हल करने से कृषि आधारित उद्योगों को अधिक दृश्यमान और परिश्रमिक बनाने की एक बड़ी क्षमता है चुनिदा सरकारी पहल की समीक्षा।

(अ) खाद्य प्रसंस्करण और पेय पदार्थ :-

खाद्य प्रसंस्करण उद्योग मंत्रालय, खाद्य प्रसंस्करण उद्योगों और मूल्यवर्धन गतिविधियों को बढ़ावा देने के लिये विभिन्न केन्द्रिय क्षेत्र की योजनाओं का लागू करता है इसने हाल ही में नई केन्द्रिय क्षेत्र योजना प्रधानमंत्री किसान सम्पदा योजना (पी.एम.के.एस.वाई.) के तहत अपनी योजनाओं को 2016–20 की अवधि के लिये रुपये 6000

जैविक कृषि में उद्योगिता विकास एवं रोजगार के अवसर, लेखक : रोशन चौधरी, डॉ. अमित त्रिवेदी, डॉ. हेमन्त स्वामी एवं डॉ. एस.के. शर्मा

करोड़ के आवटन के पुनः संरचित किया है योजना में निम्नलिखित घटक सस्थापित किये गये हैं (अ) मेगा फूड पार्क (ब) एकीकृत कोल्ड चेन तथा मूल्यवर्धित आधारभूत ढांचा (स) खाद्य सुरक्षा और गुणवत्ता आवश्यकता आधार मूल ढांचा (द) मानव संसाधन विकास तथा संस्थाएं प्रधानमंत्री किसान सम्पदा योजनाएं शामिल हैं कृषि प्रसंस्करण समूहों के लिए आधारभूत संरचना, विनिर्माण तथा खाद्य प्रसंस्करण संरक्षण इकाइयों की स्थापना में सम्पूर्ण मूल्यों की श्रृंखला के लाभ मजबूत आधुनिक बुनियादी ढांचा का निर्माण करने के उद्देश्य से खाद्य प्रसंस्करण और संरक्षण क्षमता का निर्माण (विस्तार) प्रधानमंत्री किसान सम्पदा योजना (पी.एम.के.एस.वाई.) के घटक जैसे एकीकृत कोल्ड चेन और मूल्यवर्धन आधारभूत ढांचा एवं विनिर्माण और विपणन सुविधाओं का निर्माण, कृषि उत्पादन की कराई और फसल के बाद के नुकसान को कम करने और ग्रामीण गैरकृषि क्षेत्र में परिश्रमिक आय और पर्याप्त रोजगार सुनिश्चित करने में बहुत महत्वपूर्ण है।

(ब) कपड़ा उद्योग :-

कपड़ा उद्योग को अत्यधिक रोजगार प्रदान करने वाला माना जाता है यह 4.5 करोड़ लोगों को सीधे और अन्य 6 करोड़ लोगों को सम्बद्ध क्षेत्रों में रोजगार प्रदान करता है जिसमें बड़ी संख्या में महिलाएं और ग्रामीण आबादी भी शामिल है भारतीय कपास, कपड़ा उद्योग काफी हद तक असंगठित है और उच्च उत्पादन तथा श्रम लागत से ग्रस्त है उद्योग के अन्य महत्वपूर्ण मुद्दे हैं पुरानी होती मशीनरी कच्चे माल की गुणवत्ता और घरेलु व अन्तर्राष्ट्रिय बाजारों में मूल्यवर्धित कपास उत्पादों के लिये समुचित स्तर का अभाव वस्त्र उद्योग को विष्व स्तर पर प्रतिस्पर्धा बनाने, निर्यात को बढ़ावा देने और आधुनिकरण को सुविधाजनक बनाने की दृष्टि से सरकार नई योजनाबद्ध पहल की है जैसे कि एकीकृत प्रसंस्करण विकास योजना समुहबद्ध कार्य योजना, सामान्य सुविधा केन्द्र तथा संघोषित प्रौद्योगिक उन्नयन नीधी योजना (पावरट्रेक्स) समर्थ कपड़ा उद्योग

क्षेत्र में क्षमता निर्माण की योजना, व्यापक हथकरधा, समुह विकास योजना, राज्य और केन्द्र का कर और लेवी छुट जिससे उद्योग व कृषि बढ़ावा मिल सकें।

(स) जुट उद्योग :-

भारत में जुट उद्योग की स्थापित क्षमता 16.5 लाख मीट्रिकटन है, जिसमें से 11.5 लाख मेट्रीक टन जुट का उत्पादन होता है ऐसा अतिरिक्त क्षमता विपणन और आधुनिक तकनीक और उपकरणों को लाने का प्रयास किया है राष्ट्रीय जुट बोर्ड योजनाबद्ध हस्तक्षेप एवं अन्य बातों के साथ-साथ जुट मीलों को उनके मुद्दों और चुनोटियों को हल करने के लिये पंजीगत आर्थित सहायता प्रदान करता है।

(द) खादी और ग्रामोद्योग :-

देश में सुक्ष्म, लघु और मध्यम उद्यम मंत्रालय का खादी और ग्रामोद्योग आयोग विभिन्न फसल उपरान्त कृषि और खाद्य आधारित सुक्ष्म उद्योगों की स्थापना को बढ़ावा देता है जैसे दालों और अनाज, फलों और सब्जियों का प्रसंस्करण, प्रधानमंत्री रोजगार सृजन कार्यक्रम के माध्यम से खादी ग्रामोद्योग आयोग गैर-कृषि क्षेत्र में सुक्ष्म उद्योगों की स्थापना के माध्यम से स्वरोजगार के अवसर पैदा करने को कोषिष करता है जिससे अन्य बातों का समावेश है (1) कृषि आधारित और खाद्य प्रसंस्करण उद्योग (2) वन आधारित उद्योग (3) हस्त निर्मित कागजों और फाइबर, कपड़ा उद्योग आदि।

(ड) पशुपालन, डेयरी और मत्स्य पालन :-

रोजगार और आय सृजन क्षमता को ध्यान में रखते हुये, सरकार विभिन्न योजनाओं को लागू करती है जैसा कि इस उपक्षेत्र में कृषि आधारित उद्योगों को बढ़ावा देने के लिये डेयरी गतिविधियों में डेयरी उद्योगिता विकास योजना, डेयरी प्रसंस्करण और अवसंरचना विकास कोष, डेयरी गतिविधियों व प्रबन्धन तथा मत्स्य पालन एवं मत्स्य पालन आधारभूत संरचना विकास निधि का समावेश।

5. कृषि आधारित उद्योग मुद्दों और समस्याओं की समीक्षा :-

कृषि आधारित औद्योगिक क्षेत्र, ग्रामीण क्षेत्रों में समान आय और रोजगार के अवसरों को सुनिश्चित कराने के लिये अपनी उच्च क्षमता को बावजूद अविकसित रह गया है उपलब्ध जानकारीयों की समीक्षा/इंगित करती है कि भारत में कृषि आधारित

प्रो डी0 हिटलसी के कथनानुसार

इकाइयों के प्रलंबित मुद्दों का समाधान किया जाना है जैसे कि वित्त, औद्योगिक नीति, अनुसंधान और विकास बुनियाद, सुविधाएं विपणन, उत्पादन और मानव संसाधन सम्बन्धी धितानें। तालिका-4 भारत में कृषि आधारित उद्योगों के समक्ष समस्याओं एवं सम्बद्ध प्रमुख मुद्दों को दर्शाया गया है भारत सरकार व राज्य सरकार में कृषि से सम्बन्धित योजनाओं में करोड़ों रुपये का बजट आने के बावजूद में कृषि आधारित उद्योग विकसित नहीं हो रहे हैं जिसका प्रमुख कारण डवदवचवसल (एकाधिकार) है, एवं भष्ट नेताओं व अफसरों द्वारा भष्टाचार व गबन प्रवृत्ति के कारण विकास नहीं हो रहा है इस प्रक्रिया पर पूर्णतः रोक लगाकर धरातल स्तर पर योजनाओं का विकास करने हेतु आम आदमी को जागृत करे जिससे भावी योजना के तहत भारत देश विकासशील से विकसित हो सके एवं नई तकनीकी सुलभ करवाकर आम कृषक को प्रेरित करने हेतु आयाम उत्पन्न करे एवं भारतीय योजनाकारों और नीति निर्माताओं ने हमेशा ग्रामीण और कृषि औद्योगिकरण को प्रोत्साहित किया है कृषि उद्योगों के निहित लाभ स्थानीय कृषि संसाधनों का अधिकतम उपयोग, बड़े पैमाने पर निवेश को जुटाना, बड़े-बड़े उद्योगपतियों विदेशी कम्पनीयों को सुलभ सुविधा देकर भारत में उद्योग स्थापित करने हेतु प्रोत्साहित करे एवं विष्व पैमाने पर प्रचार-प्रसार करे ताकि योजनाओं के अन्तर्गत सभी व्यक्ति, संस्था उद्योग स्थापित करने हेतु वातावरण प्रदान करें। रोजगार अवसरों का सृजन संकटपूर्ण ग्रामीण-षहरी प्रवास की रोकथाम, क्षेत्रों में असमानता में कमी लाना है इन उद्योगों में गांवों में प्रचार, लाभदायक व्यवसाय, गतिविधियों विविधिकरण के लिये एक विस्तृत, विष्वसनीय और टिकाऊ मॉडल पेप करने की क्षमता है। यह उद्योग मुद्दों तथा चुनोटियों से परे नहीं है सरकार विभिन्न

हाल ही में माननीय उपराष्ट्रपति एम0वेंकैया नायडू ने अपने एक संबोधन में ग्रामीण क्षेत्रों में कृषि आधारित उद्योगों को बढ़ावा देने की आवश्यकता पर जोर दिया है ताकि ग्रामीण युवाओं के लिये रोजगार के अवसर पैदा किये जा सकें। उन्होने संबद्ध

उपराष्ट्रपति एम0वेंकैया नायडू की पुस्तक ऑटोक्रैट से उद्धरित

गतिविधियों के साथ किसानों की आय बढ़ाने में कृषि-उद्योगों की भूमिका पर भी जोर दिया।

केन्द्रीय योजनाओं ड।ज्ञम् ष ष्कम्। (भारत निर्माण) स्टार्टअप इन्डिया जैसे नवीन प्रयासों के द्वारा अत्याधुनिक कृषि औद्योगिक आधारभूत संरचना सुनिश्चित करने की कोषिष कर रहा है कृषि आधारित उद्योग देश के भीतर और बाहर प्रतिस्पर्धा लाभ की धारणा के अनुरूप है। वे अधिविषेष ग्रामीण श्रम को रोजगार प्रदान करने के लिये एक सुरक्षा कवच की भूमिका निभा सकते हैं और ग्रामीण क्षेत्रों में बड़े पैमाने पर बेरोजगारी को योजनाओं लामान्वित करके कृषि उद्योगों के लिये प्रोत्साहित करे एवं पिछड़े क्षेत्रों

का औद्योगिकरण, बिमार औद्योगिक इकाइयों का पुनः बहाल करना, अविष्कारों की प्रगति तथा आयात प्रतिस्थापित कर विदेशों से कच्चा माल तथा नई तकनीकी में आत्मनिर्भरता के लिये 1966 में आयात प्रतिस्थापन बोर्ड की स्थापना की गई जिससे केन्द्र सरकार इन योजनाओं का सुअवसर व राहत देश में अविष्कारों की प्रगति के लिये 1960 में अविष्कार उन्नति बोर्ड की स्थापना की गई परन्तु बजट व केन्द्र सरकार की उदासीनता के कारण विकास के आयम में औपचारिक गठन हो रहा है जबकि सरकार द्वारा बजट व ईमानदार प्रशासकों की नियुक्ति कर सुचारों रूप से आम जनता तक परिलाभ से जोड़ा जाना चाहिए। भारत की 70 प्रतिशत जनसंख्या खेती पर निर्भर करती है इसके फल स्वरूप खेती काफी पिछड़ी हुई है उद्योग के विकास के कारण कृषि पर जनसंख्या का दबाव कम हो जायेगा इससे कृषि उद्योग का आकार बढेगा व खेती को अधिक उन्नति हो सकेगी। भारत को आत्मनिर्भरता के आयाम अपनाने चाहिए जिससे सभी वस्तुयें भारत में उत्पन्न होने लगेगी कृषि एवं उद्योग ही भारत में उत्पन्न होने लगेगी कृषि एवं उद्योग ही भारत देश को विकसीत करने में अहम योगदान हो सकता है जिस देश की कृषि उद्योग पिछडा ह उस देश में निर्धनता का प्रवेश हो जाता है जो निर्धनता उस देश को दीमक की तरह अन्दर से खोखला कर देती है एवं देश की आर्थिक स्थिति का ढांचा खोखला हो जाता है तब उस देश की आन्तरिक व बाह्य शक्ति शून्य हो जाती है।

कृषि के प्रमुख प्रकार:-

स्थानान्तरणशील कृषि, प्रारम्भिक स्थायी कृषि, व्यापारिक पशुपालन, चलवासी पशुपालन, चावल प्रधान गहन निर्वाहन कृषि, चावल विहीन गहन निर्वाहन कृषि, व्यापारिक बागाती कृषि, भूमध्य सागरीय कृषि, व्यवस्थाव्यापारिक खाद्यान्न उत्पादन कृषि, व्यापारिक शस्य व पशु उत्पादक कृषि, जीविकोपार्जन फसल व पशु उत्पादक कृषि, व्यापारिक दुग्ध पशुपालन कृषि, विषिष्टीकृत उद्यान कृषि

पंडित जवाहरलाल नेहरू जी द्वारा देशवासियों से मिले स्नेह-प्रेम के प्रति कृतज्ञ पंडित नेहरू जी ने अपनी वसीयत में लिखा था, कि मुझे भारत के लोगों ने इतना प्यार और स्नेह मिला है कि मैं इसका एक छोटा सा अंश भी उन्हें लौटा नहीं सकता और वास्तव में स्नेह जैसी मूल्यवान चीज के बदले में कुछ लौटाया भी नहीं जा सकता, उन्होंने लिखा कि मेरी राख का हिस्सा वतन को सपर्मित "मैं चाहता हूँ कि जब मेरी मृत्यु हो तो मेरे शरीर का दाह संस्कार कर दिया जाए, यदि मेरी मृत्यु विदेश में होती है, तो मेरा दाह संस्कार वही कर दिया जाये और मेरी राख को इलाहाबाद भेज दिया जाए, इसमें से मुट्ठीभर राख प्रयाग के संगम में बहा दी जाए जो हिन्दुस्तान के दामन को चूमते हुए समंदर में जा मिले, मेरी राख का ज्यादा हिस्सा हवाई जहाज से ऊपर ले जाकर खेतों में बिखेर दी जाए, वो खेत जहाँ हजारों मेहनतकश ईंसान काम में लगे हैं, ताकि मेरे वजूद का हर जरा वतन की खाक में मिलकर एक हो जाए, इस राख का कोई भी हिस्सा न ही बचाकर रखा जाए और न संरक्षित किया जाए"

पंडित जवाहर नेहरू जी द्वारा वसीयत में अपनी राख को खेतों में बिखरने हेतु लिखा गया है

REFERENCES

NO REFERENCES



शिक्षा में जनजाति महिलाओं के बढ़ते कदम : भविष्य में संभावनाएँ

सुश्री प्रथा कलासुआ

शोधार्थी, मो.सु.वि.वि. उदयपुर

ABSTRACT:

'शिक्षा जीवन की तैयारी नहीं, ये अपने आप में ही एक जीवन है।' जॉन दवे

मनुष्य के जीवन में अच्छी शिक्षा, कौशल व स्वास्थ्य प्राप्त होने से वह राष्ट्र के लिए मानव पूंजी के रूप में कार्य करता है, जो कि भौतिक पूंजी के कहीं अधिक महत्व का है। प्रत्येक राष्ट्र इस 21वीं सदी में अपने नागरिकों को प्रदान करने वाली सुविधाओं में प्रथम रूप में प्राथमिक शिक्षा से लेकर उच्च शिक्षा के अवसर उपलब्ध कराने हेतु तत्पर है यही कारण है कि भारत की स्वतंत्रता के समय सम्पूर्ण भारत की साक्षरता दर केवल 18.71: थी, जो 2011 की जनगणना के आंकड़ों के अनुसार 74: तह पहुँची है। प्रत्येक राष्ट्र ने समस्त नागरिकों के लिए यह सुविधा मुहैया कराने का प्रयास किया है प्राचीन भारत देश में शिक्षा के प्रमुख केन्द्रों के रूप में नालंदा व तक्षशिला विश्वविद्यालय ने अपनी पहचान विश्व में बनाई थी। परन्तु बदलती परिस्थितियों में भारत में आधुनिक शिक्षा का प्रचार-प्रसार अंग्रेजों के माध्यम से हुआ, जिन्होंने भारतीय शिक्षा को कम आँका व पाश्चात्य जगत के साहित्य, विज्ञान, गणित इत्यादि विषयों को पढ़ाया जाने लगा, साथ ही तत्कालीन भारत के महापुरुषों ने अपने प्रयासों के माध्यम से भारतीय जनमानस में शिक्षा के प्रति जनचेतना का कार्य किया व स्वतंत्रता प्राप्ति के पश्चात् सरकार ने विभिन्न पंचवर्षीय योजनाओं के माध्यम से शिक्षा नीतियों से विभिन्न लक्ष्य निर्धारित किये, जिनकी प्राप्ति समय-समय पर होती है। उसी के परिणाम स्वरूप हमारे देश में साक्षरता दर प्रति दशकीय वर्षों में वृद्धि की सूचक रही है।

किसी भी राष्ट्र के विकास में पुरुषों के योगदान के साथ-साथ महिलाओं का योगदान भी राष्ट्र को विकास के अग्रिम पायदान पर पहुँचा सकता है। अतः महिलाओं की शिक्षा का महत्व और बढ़ जाता है जब देश की आधी आबादी महिलाओं की हो, जहाँ शिक्षा के समान अवसर महिला-पुरुषों के लिए उपलब्ध हो रहे हैं। आबादी को नियंत्रित करने व दुनिया को बेहतर बनाने के लिए लड़कियों को शिक्षित करना सबसे अच्छा उपाय माना गया है। आक्सफोर्ड यूनिवर्सिटी की वर्ल्ड पॉपुलेशन एंड वूमन केपिटल इन ट्वेंटी फर्स्ट सेंचुरी स्टडी के अनुसार लड़की और लड़के को 10वीं तक नियमित शिक्षा मिले तो 2050 में दुनिया की आबादी 150 करोड़ के कम के स्तर पर होगी, वही बुकिंग्स इंटीट्यूशन की रिपोर्ट के अनुसार लड़कियों की शिक्षा और जन्म दर के बीच गहरा संबंध है, क्योंकि शिक्षा लड़कियों को परिवार नियोजन की समझ देती है। साथ ही शिक्षा उन्हें बाल विवाह व कच्ची उम्र में माँ बनने से भी बचाती है।

दुनिया भर में महिलाओं के साथ भेदभाव और उनके अधिकारों का हनन सदियों से होता आ रहा है, लेकिन अब इसमें धीरे-धीरे सधार भी हो रहा है इसका अंदाजा इसी तथ्य से लगाया जा सकता है कि दुनिया में हर 10 में से 9 पुरुषों का मानना है कि देश की तरक्की के लिए महिलाओं का उच्च शिक्षा दिलाना जरूरी है।

भारत की स्वतंत्रता प्राप्ति के समय की स्थिति देखने पर ज्ञात होता है कि जनजाति महिलाओं में शिक्षा प्राप्ति के प्रति रुचि व चेतना कम ही थी, क्योंकि तत्कालीन सामाजिक व आर्थिक परिस्थितियों ने इन महिलाओं को अपने गृहस्थी व कृषि कार्यों के अलावा अन्य जिम्मेदारियों का वहन करने को बाध्य बनाती है। उस समय इन महिलाओं के पास दैनिक कार्यों के रूप में लम्बी सूची होती थी, जिन्हे पूरा करते करते पुरा दिन व्यवस्तता में गुजर जाता था, और वर्तमान में प्राप्त संसाधन व सुविधाओं का अभाव था, इस कारण महिलाएँ शिक्षा प्राप्त करने से वंचित रही।

परन्तु समय के साथ बदलती परिस्थितियों ने जनजाति महिलाओं की सोच व उनकी स्थिति के लिए परिवर्तनकारी सिद्ध हुई है। आदिवासी महिलाओं ने 1960 के दशक के पश्चात् शिक्षा प्राप्ति में कदम बढ़ाये व स्वतंत्र भारत में खुलने वाले विद्यालयी उनकी शिक्षा में मील का पत्थर साबित होने लगे। वर्तमान में महिला शिक्षा के उपलब्ध अवसरों को देखा जाये तो हम पाते हैं कि विभिन्न-विभिन्न क्षेत्रों में जन जागृति समय के अनुरूप आती रही है जिसका परिणाम हमें वहाँ की साक्षरता दर व जनजागृति, विकास कार्यों व उनके द्वारा लिये जाने वाले निर्णयों के आधार पर करते हैं।

KEYWORDS:

शिक्षा के प्रति बढ़ती जागरूकता

दक्षिणी राजस्थान की जनजाति महिलाएँ अपने जीवन के आरम्भिक समय से लेकर अन्त तक स्वतंत्र व स्वच्छंद जीवन यापन करती हैं। अपने पिता के घर में विवाह से पूर्व ही शिक्षा प्राप्ति के साथ-साथ कृषि से संबंधित समस्त कार्य बड़ी तीव्रगति से समयोजित करना सीख लेती हैं अपने घर में माता-पिता की अनुपस्थिति में पुरे घर की देखरेख के साथ पशुधन व कृषि कार्य को बड़ी निपुणता से संभाल लेती हैं। समय व परिस्थितियों में आये परिवर्तन के साथ जनजाति महिलाओं ने अपने जीवन में कई महत्वपूर्ण परिवर्तन लाकर न केवल परिवार बल्कि समाज में अपनी जागरूकता को बढ़ाया है, फिर भी उनकी स्थिति को ज्यादा सशक्त बनाना है, ताकि वह अपनी व समाज की सामाजिक-आर्थिक पृष्ठभूमि के साथ शैक्षिक स्थिति को बेहतर बनाने के लिए प्रयासरत हो तब उनका स्थान और भी सर्वोच्च स्थिति में पहुँच सकता है, वह खुलकर अन्य गतिविधियों में भाग ले पायेगी और उन्हें मूलभूत सुविधाओं के लिए संघर्ष नहीं करना होगा। आदिवासी समाज में सामाजिक क्षेत्र में महिलाओं की स्थिति को मजबूत बनाना व महिलाओं का सशक्तिकरण करना मुख्य उद्देश्य में शामिल है। ग्रामीण भारत के वंचित तबके को हम विकास की श्रेणी में खड़ा कर सकते हैं, तभी सम्पूर्ण भारत का चहुँओर विकास संभव है।

अलग-अलग शैक्षणिक संस्थाओं का स्वतंत्रता से पूर्व दक्षिणी राजस्थान में संचालित होने के कारण प्राथमिक शिक्षा के साथ जनजाति महिलाओं ने अपनी आरम्भिक शिक्षा प्राप्त की व धीरे-धीरे माध्यमिक, उच्च माध्यमिक शिक्षा की ओर अग्रसर हो रही है। साथ ही इस 21वीं सदी में उच्च शिक्षा के क्षेत्र में भी जनजाति महिलाओं की पहुँच आरंभ हुई है, जो आने वाले भविष्य में दक्षिण क्षेत्र का प्रगति का सूचक मानी जा रही

है। आरंभ से कई विशेष क्षेत्र जैसे खैरवाड़ा में शैक्षणिक माहौल मिलने के कारण आज इस क्षेत्र में कई जनजाति महिलाएँ-युवतियाँ मेडिकल, नर्सिंग, शिक्षा प्रशासनिक, इत्यादि क्षेत्रों में अपना परचम लहरा रही हैं यहाँ की लड़कियों ने अपने निर्धारित लक्ष्यों को प्राप्त कर अपने आस-पास की अन्य लड़कियों का भी प्रेरणा प्रदान कर रही हैं शोधार्थी द्वारा दक्षिणी राजस्थान की महिलाओं से शिक्षा के महत्व व जागरूकता के संबंध में उनकी अभिव्यक्ति निम्न रूप से प्राप्त हुई है।

'शिक्षा जीवन का अति आवश्यक पहलु है, जिससे हम अपना ज्ञान रहन-सहन का स्तर, सामाजिक एवं आर्थिक स्तर को जीवन पर्यन्त बढ़ा सकते हैं। शिक्षा से स्वयं का विकास एवं रोजगार में विकास कर सकते हैं। शिक्षा में सबसे महत्वपूर्ण यह भी है कि हम मानवीयता को बनाये रख सकते हैं। आजकल पढ़े लिखे शिक्षित लोग तो हैं पर समाज में आत्मीयता एवं मानवीयता से विकृत लोग भी हैं। शिक्षित होने से बुद्धिमता के साथ-साथ संयम, अहिंसा, आत्मीयता एवं मानवीय गुण भी आते हैं।

डॉ. स्वाति डामोर (32) खैरवाड़ा, उदयपुर

2. 'शिक्षा बहुत ही महत्वपूर्ण है, क्योंकि सही शिक्षा से ही व्यक्ति के भविष्य का निर्माण होता है।'

मिनाक्षी मच्छार (35) ऋषभदेव, उदयपुर

3. 'शिक्षा ही जीवन को बनाती है। शिक्षा के बिना मनुष्य अधूरा है शिक्षा के बिना वह अज्ञानी रह जाता है।'

चन्द्रमुखी मीणा (22) सराड़ा, उदयपुर

4. 'जीवन में शिक्षा होना जरूरी है क्योंकि हम पढ़ेंगे तो समाज भी आगे बढ़ेगा।'

मंजुला कुमारी (15) कोटड़ा, उदयपुर

5. 'शिक्षा हमें सामाजिक, राजनैतिक तथा समस्त आधुनिक मूल्यों के साथ जोड़ने का कार्य करती है, यह जीवन के वास्तविक मूल्य प्रदान करती है।'

डॉ. शीला कलासुआ (31) गिर्वा, उदयपुर

जनजाति महिलाओं के उक्त विचारों से स्पष्ट होता है कि आज के युग में आदिवासी महिलाएँ यदि शिक्षित हो तो वह अपने विचारों के साथ अपने जीवन स्तर व अपने आस-पास के सामाजिक व आर्थिक क्षेत्र को प्रभावित करने के साथ-साथ उसमें निरन्तर आने वाले बदलावों को भी अपने स्वयं पर लागू करती है। यह सब तभी संभव हो पायेगा जब महिला शिक्षित हो, अतः शिक्षा एक ऐसा सशक्त माध्यम इस क्षेत्र के लिए साबित हो सकता है, जिसके द्वारा हम परिवर्तन ला सकते हैं। जहाँ पर वर्षों से महिलाएँ समस्याओं का सामना कर रही हैं। अपने आस-पास हो रहे बदलावों को देखकर वह अपना भविष्य सुनहरा बनाना चाहती है व इस अविकसित क्षेत्र में बदलाव की बयार लाना उसका अपना सपना है। शिक्षा के साथ-साथ अन्य क्षेत्रों में अपना नाम रोशन कर रही है, दक्षिणी राजस्थान की महिलाएँ भविष्य में शिक्षा के साथ-साथ अन्य क्षेत्रों में प्रगतिशील कदम ना केवल अपने लिए बल्कि सम्पूर्ण समाज को बढ़ाने के लिए उदाहरण अवश्य होगा।

सारणी सं. 1.1

क्र.सं.	वर्ष	साक्षरता दर जनजाति महिलाओं (प्रतिशत में)	
		राजस्थान	उदयपुर
1	1961	0.28	0.17
2	1971	0.49	0.30
3	1981	1.20	0.69
4	1991	3.46	2.28
5	2001	26.16	25.71
6	2011	37.3	61.82

Source:- Population fact and figures in Rajasthan 1961-2001

Population Projection Rajasthan (2001-2011)
Provisional Rajasthan, Jaipur

उक्त सारणी से स्पष्ट होता है कि राजस्थान के संदर्भ में जनजाति महिलाओं का शिक्षा के प्रति उत्साह प्रति दशकीय वर्षों में बढ़ता नजर आया है आरंभ में यह जहाँ 0.28: विद्यमान था अब 2011 की गणना अनुसार 37.3 हो गया है। यह तथ्य यह प्रमाण प्रस्तुत करता है कि इस 21वीं सदी में शिक्षा के मार्ग पर अग्रसर होने से उन्हें अब विकट परिस्थितियाँ रोक नहीं सकती। आने वाले वर्षों में यह आकड़ा 50 प्रतिशत से भी ऊपर जाने की संभावना है व समस्त जनजाति महिलाएँ शिक्षित होकर अपने परिवार व समाज में उदाहरण प्रस्तुत कर अन्य को प्रेरणा प्रदान करती रही है।

जनजाति समाज में बढ़ते शिक्षा के कदम का मैं हमें इसी समाज की शिक्षित महिलाएँ व बड़े पदों पर आसीन कुछ उदाहरणों से भी प्राप्त होता है। वर्तमान में शिक्षा जगत में संयुक्त निदेशक के पद पर श्रीमती एंजलिका पलात कार्यरत है। साथ ही डूंगरपुर में जिला शिक्षा अधिकारी के पद पर सुश्री इन्द्रा लट्टा कार्यरत हैं इनसे पूर्व उदयपुर जिला शिक्षा अधिकारी के पद से श्रीमती कमलेश लट्टा सेवानिवृत्त हो चुकी है। साथ ही वर्तमान में कई जनजाति महिलाएँ उच्च प्रशासनिक पदों पर सुशोभित हैं।

अतः स्पष्ट है कि यदि जनजाति महिलाओं को उचित शिक्षा समय पर प्राप्त होती है तो वह निश्चित रूप से अपने निर्धारित लक्ष्य को प्राप्त कर अपने समाज में व राष्ट्र को समर्पित सेवाएँ प्रदान करने को तैयार है।

शिक्षा प्राप्ति में आने वाली प्रमुख समस्याएँ:-

1. इस क्षेत्र का भौतिक परिवेश यहाँ के जनजाति समुदाय को और भी पिछड़ा बनाता आया है, क्योंकि इस क्षेत्र में पहुँचने के लिए सर्वप्रथम ईकाई सड़क मार्ग का नितान्त अभाव दिखाई देता है जिससे आने वाला विकास का मार्ग अवरुद्ध हो जाता है परन्तु सड़क से लेकर अस्पताल, विद्यालय व

आधार भूत सुविधाओं का अभाव इन्हें अपनी पूर्व परिस्थितियों में जकड़े हुए हैं चूँकि गाँवों में छोटे-बड़े पहाड़-पठार, नदी-नाले प्राकृतिक सम्पदा से भरपूर ग्रामीण इलाकों जहाँ पर शिक्षा प्राप्त करने के लिए कम से कम 5 किलोमीटर तक की दूरी पैदल तय करना आम बात है। यह स्थिति पूरे वर्ष भर बनी रहती है इन ऊँचे-ऊँचे व एकांत पगडंडी से निकलकर जनजाति लड़कियों आज शिक्षा प्राप्ति के लिए अपने घरों से निकल रही है, जिसमें उन्हें विभिन्न समस्याओं का सामना करना पड़ रहा है। परन्तु वह अपनी पूर्व स्थापित परिस्थितियों को बदलने की इच्छा लेकर अपने घरों से निकल रही है।

2. **जन चेतना का अभाव** भी यहाँ की महिलाओं के लिए शिक्षा प्राप्ति में बाधक बना है, क्योंकि आज इस 21वीं सदी में इस क्षेत्र की महिलाएँ विद्यालय स्तर की शिक्षा पूर्ण कर लेने के पश्चात् कुछ ही संख्या में महाविद्यालय स्तर की शिक्षा प्राप्त करने के लिए अपने घरों से निकल पाती है, क्योंकि यहाँ जनजाति परिवारों की निम्न आर्थिक स्थिति बच्चों व विशेषकर महिलाओं के आगे की शिक्षा में बाधक बन जाती है यदि इस क्षेत्र में उचित जनचेतना का प्रसार होता है तो यह युवतियाँ सरकार द्वारा प्रदान की जाने वाली विभिन्न सुविधाओं व योजनाओं का लाभ को प्राप्त कर अपने सपनों को पूरा करने का प्रयास कर रही है।
3. जनजाति महिलाएँ आरंभ से ही अपनी परिस्थिति सदैव एक समान मानकर प्रकृति की गोद में कृषि कार्य व जंगल से वानिकी जुटाकर अपना व परिवार का गुजारा कर रही थी, कम उम्र में विवाह हो जाना व घर-परिवार की जिम्मेदारी संभालने के कारण उसकी शिक्षा के प्रति रूचि कम हो जाती है। व घर परिवार की दयनीय आर्थिक स्थिति ने उसे घर से बार निकलकर मजदूरी जैसे कार्य करने पर विवश कर दिया है जिससे वह शिक्षा प्राप्ति जैसे कदम से और भी दूर होती चली गई व विद्यालय की पहुँच दूर-दूर होने के कारण कई किलोमीटर चलकर यदि वह विद्यालय जाती तो आने-जाने में लगने वाले समय से अधिक महत्त्व वह घर के कार्यों को देती है क्योंकि घर के कार्यों के साथ उसे कृषि कार्य में भी बराबरी का योगदान करना होता है।

सुझाव:-

जनजाति बहुल इलाके में विशेषकर जनजाति महिलाओं में जागरूकता लाने के लिए सबसे अच्छा माध्यम शिक्षा हो सकता है इस क्षेत्र में वर्तमान स्थिति को देखा जाये तो यह प्रतीत होता है कि जनजाति लड़कियाँ शिक्षा प्राप्ति के लिए अग्रसर हुई हैं, परन्तु परिवार की तंगी आर्थिक हालात के कारण वह आगे की पढ़ाई जारी नहीं रख पाती है अतः जनजाति महिलाओं में शिक्षा के प्रतिशत को बढ़ाने के लिए निम्न सुझाव प्रस्तुत किये जाते हैं:-

1. जनजाति लड़कियों के लिए सरकार प्रत्येक ग्राम पंचायत में पूर्ण सुविधा युक्त छात्रावासों का निर्माण करे, जिसमें उनके विद्यालय व कॉलेज व कौशल शिक्षा प्राप्ति तक रहने का पूर्ण प्रबन्ध हो जिससे भौतिक दूरी के कारण पढ़ाई छोड़ने वाली छात्राओं की संख्या कम हो सकेगी।
2. जनजाति युवतियों को विद्यालयी स्तरीय शिक्षा के पश्चात् कौशल व तकनीकी शिक्षा प्रदान करने के प्रावधान होना चाहिए, जिससे महिलाओं के अपने कौशल युक्त कार्य के माध्यम से आय अर्जन कर पायेगी, परिवार में आय बढ़ेगी व तंगी हालात के साथ-साथ कम उम्र में विवाह होने जैसी समस्याओं को कम किया जा सकता है।
3. पढ़ी-लिखी जनजाति महिलाओं को अपने स्थानीय स्तर पर स्थानीय आवश्यकतानुसार मजदूरी उद्यमों की स्थापना हेतु कम ब्याज पर ऋण प्रदान करने व उद्यम को सफल संचालन होने तक सरकार या सहकारी जैसी संस्थाओं को सहयोग प्रदान करना चाहिए। जिससे रोजगार प्राप्ति के साथ गरीबी की समस्या कम होगी व महिलाएँ अपने परिवार व समाज में जागरूकता का कार्य भी करेगी।
4. जनजाति महिलाओं में जागरूकता संबंधी कार्य को पूरा करने के लिए प्रत्येक पंचायत स्तर पर कार्यरत पंचायत सहायकों को पाबन्द करना चाहिए कि वह सरकारी योजनाओं की समस्त जानकारी अपने संबंधित ग्राम पंचायत स्तर पर प्रदान करें। ताकि ग्रामीण क्षेत्र की युवतियों को सही समय पर संचालित योजनाओं का लाभ प्राप्त हो सके। ताकि शिक्षा के इस कम प्रतिशत को पूरा किया जा सके।

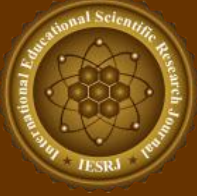
उपसंहार:-

दक्षिण राजस्थान की महिलाएँ स्वतंत्रता के समय विभिन्न परिस्थितियों व पिछड़ेपन के कारण शिक्षा से वंचित थी, आज इस 21वीं सदी में इनमें शिक्षा व करियर के प्रति जागृति आई है। यह महत्त्वपूर्ण बदलाव हमें इस 21वीं सदी में अधिक देखने को मिलता है। यहाँ की युवतियाँ न केवल पारम्परिक कार्य में बल्कि चिकित्सा, शिक्षा, प्रशासनिक,

नर्सिंग, बैंक, सेवा, व्यापार, उद्यम इत्यादि में भागीदारी निभाने लगी है। जो कि समाज में प्रगति का सूचक माना जाने लगा है। साथ ही जनजाति महिलाओं की शिक्षा का व जन चेतना के बढ़ते स्तर की भी सूचक बन रही हैं

REFERENCES

1. समाचार पत्र: दैनिक भास्कर, संवादाता रिपोर्ट, उदपुर संस्करण 'लड़कियों की शिक्षा,' श्रनसल 2020 पृ.6
2. समाचार पत्र: भास्कर रिसर्च, 'आबादी पर नियंत्रण और दुनिया को बेहतर बनाने का अच्छा तरीका लड़कियों की शिक्षा, दैनिक भास्कर (उदयपुर संस्करण) 11 जुलाई2020



मन्नू भण्डारी के उपन्यासों में स्त्री-विमर्श

डॉ. अनिता कुमावत

प्राचार्या, श्री महावीर शिक्षण संस्थान रेनवाल, जयपुर

ABSTRACT:

KEYWORDS:

नई सदी के आगमन के साथ ही कई विमर्शों का साहित्य के क्षेत्र में पदार्पण हुआ। इन विमर्शों में मिडिया विमर्श, आदिवासी विमर्श, दलित विमर्श— जैसे विमर्शों के अतिरिक्त स्त्री-विमर्श प्रमुख है। अस्सी के दशक के आस-पास से ही साहित्य में स्त्री-विमर्श की आहट सुनाई देने लगी थी। भूमण्डलीकरण और बाजारवादी संस्कृति के युग में आत्मसजगता और आत्म चेतना के परिणामस्वरूप स्त्री-विमर्श को पंख मिले। परिणामतः स्त्री की सामाजिक, आर्थिक, धार्मिक एवं शैक्षिक स्थिति-परिस्थिति में अनेक प्रकार के परिवर्तन एवं सुधार हुए वर्तमान समय में स्त्री विमर्श आज ऊँचाइयों को छू रहा है। यह एक ऐसा विमर्श अर्थात् नारीवादी आन्दोलन है, जो स्त्री द्वारा स्त्रो के लिए चलाया गया। स्त्री विमर्श का मूल अभिप्राय है – “स्त्री को सभी प्रकार शोषण से मुक्ति प्रदान करना। स्त्री विमर्श के चलते स्त्री ने अपने अस्तित्व को जाना समझा, और पहचाना। पुरुष सत्तात्मक समाज में उसने स्त्री सम्बन्धी समस्त पुराने मिथकों को तोड़कर जब अपने आप का एक नई भूमिका के रूप में प्रस्तुत किया तो जन्म हुआ स्त्री विमर्श का। हिन्दी साहित्य में क्षेत्र में स्त्री विमर्श के क्षेत्र में समकालीन महिला लेखिकाओं ने अपने कथा साहित्य के माध्यम से स्त्री के मानवीय अधिकारों और अस्मिता से जुड़े महत्वपूर्ण सवाल को उठाया। स्त्री लेखन और स्त्री विमर्श के सम्बन्ध में वर्जानिमा ‘‘’’ के ये शब्द सार्थक प्रतीत होते हैं कि – “स्त्री का लेखन स्त्री का होता है, स्त्रीवादी होने से वह बच नहीं सकती अपने सर्वोत्तम रूप में वह स्त्रीवादी ही होगा।”

स्त्री विमर्श अर्थात् नारी मुक्ति की इस लड़ाई में महिला लेखिकाओं की अहं भूमिका रही है। 12 जिन्होंने पिछले दशकों से चली आ रही अबला जीवन हाथ तेरी यही कहानी, आँच में दूध आँखों में है पानी के स्त्री सम्बंधी अवधारणा को टुकड़ा कर अपने साहित्य के माध्यम से नारी को अबला से सबला रूप में प्रस्तुत किया। स्त्री विमर्श के क्षेत्र में जिन महिला लेखिकाओं ने अपनी पहचान बनाई उनमें मन्नू भण्डारी, प्रभा खेतान, ममता कालिया शशिप्रभा शास्त्री, उषा-प्रियम्बदा, शिवानी, अलका सरागवी, नासिरा शर्मा, नमिता सिंह, सूर्यवाला, कृष्णा सोबती, मैत्रेयी पुष्पा एवं निकिता गर्ग आदि का विशिष्ट स्थान रहा है। इन महिला लेखिकाओं में न केवल बदलते समय सन्दर्भों में स्त्री को साहित्य के प्रस्तुत किया अपितु उनमें नारी चेतना जगाने का कार्य भी किया। इनका कथा साहित्य चाहे वह उपन्यास हो या कहानियाँ स्त्री संघर्ष एवं उसकी पीड़ा। स्त्री के बनने-बिगड़ने को दर्द को व्यक्त करती है जो स्त्री विमर्श का जीवन्त दस्तावेज कहे जा सकते हैं। स्त्री-विमर्श के क्षेत्र में छठे दशक के पश्चात् जिन महिला लेखिकाओं ने स्त्री विमर्श को एक नवीन दिशा और दशा प्रदान की उनमें मन्नू भण्डारी का अहं स्थान है। मन्नू भण्डारी ने अपने कथा साहित्य (कहानियाँ एवं उपन्यासों) में स्त्री के प्रति समाज की परम्परागत रूढ़िवादी सोच को चुनौती देते हुए पूरे साहस के साथ अपनी बात कही है।

स्त्री-विमर्श के परिचय के पश्चात् मन्नू भण्डारी के इस मनु भण्डारी के उपन्यासों में स्त्री विमर्श मेरे आलेख का मूल विषय है। इस सन्दर्भ में मैंने विचारों का इस सारांश में प्रस्तुत करने का प्रयास किया है। हिन्दी कथा साहित्य में मन्नू भण्डारी का विशिष्ट स्थान है, यह एक ऐसी महिला लेखिका है जो समय की प्रामाणिकता के साथ निरन्तर साहित्य सृजन में रत रही है। लेखकीय संस्कार उन्हें पैतृक परम्परा के रूप में प्राप्त है। मन्नू भण्डारी ने सभी विधाओं के अतिरिक्त उपन्यास साहित्य के क्षेत्र में चार उपन्यासों की रचना की। इसका ‘आपका बंटी’, ‘महाभोज’, ‘स्वामी’ एवं ‘एक-इंच मुस्कान’ वर्तमान परिप्रेक्ष्य में पति पत्नि सम्बंधी, स्त्री की मनः स्थितियों, उसके आक्रोश एवं संवेदनाओं को पूरी तरह से अपने म समाहित कर स्त्री-विमर्श के सन्दर्भ में प्रस्तुत करने के साक्ष्य हैं। जिस प्रकार सूर्य की प्रातःकालीन किरणें रात्रि के अंधकार को चीर कर चारों तरफ उजाला फैला देती है ठीक उसी तरह इन्होंने अपने नारी जीवन की

विसंगतियों और विडम्बनाओं के बारीक से बारीक रेशे को अपन उपन्यासों में उकेरा। स्त्रीविमर्श सभी पक्षों की कुशल चित्रकार रही मन्नू भण्डारी ने अपने लेखन के माध्यम से स्त्री को एक नवीन दशा और दिशा प्रदान की। पुरुष वर्चस्वादी समाज में स्त्री को सामाजिक, धार्मिक कुरीतियों एवं कुप्रआर्थों विरुद्ध विद्रोह करने का आत्मबल प्रदान किया। समाज में स्त्री जीवन का आर्थिक पक्ष हो चाहे सामाजिक या शैक्षिक कोई भी पक्ष इनकी सूक्ष्म दृष्टि से ओझल नहीं हुआ है। मन्नू भण्डारी ने अपने आस-पास के परिवेश में घटित घटनाओं को अपने उपन्यासों का कथ्य बनाया उनके उपन्यासों के पात्र भी आस पास के परिवेश से सम्बंध रखते हैं, यही से इसके कथा लेखन का प्रारम्भ होता है, इस सम्बन्ध में विजय लक्ष्मी पूनियाँ से अपने एक लेख में लिखा है कि – “समाज की हर छोटी-बड़ी घटना मन्नू जी के मन को प्रभावित करती है। ये ही घटनाएँ उनकी उपन्यास हो या कहानी के लिए मूल बिंदु हैं अथवा यही भी कहा जा सकता है कि ये स्टर्लिंग प्वाइंट का भी काम करती है।”

सन् 1950 में देश की आजादी के उपरान्त सामाजिक परिवेश एवं सम्बन्धों में व्यापक स्तर पर बदलाव आया। जिससे स्त्री के प्रति साहित्यकारों के दृष्टिकोण में भी गुणात्मक परिवर्तन हुए। मन्नू भण्डारी ने इसे बदलते परिवेश में नारी के व्यक्तित्व और उससे जुड़ी अवधारणाओं को अपने उपयोग में प्रस्तुत किया है। वर्तमान भूमण्डलीकरण के युग में नारी ने सामाजिक आदर्शों और नैतिक मूल्यों को टुकड़ा कर आधुनिकता का दामन थामा। शिक्षित होकर वह आत्मनिर्भर बनी और इसी आत्मनिर्भरता ने उसमें आत्मस्वाभिमान एवं आत्मस्वलम्बन को जगाया। समय की वेगवती धारा ने नारी की मानसिकता ने भी परिवर्तन किया, जिससे उसके विचार क्षेत्र का विस्तार हुआ। परिणामतः वह अपने अधिकारों और कर्तव्यों के प्रति सजग हो सकी। वर्तमान में नारी-स्त्री क्षेत्र में पुरुष वर्चस्व को चुनौती दे रही है। पुरुष पराधीनता की सभी वेदियों को तोड़कर वह नवीन जीवन मूल्यों को अपना रही है। शिक्षित हो पूरे आत्मबल और आत्मसम्मान के साथ अपनी महत्वकांक्षाओं की पूर्ति करने के लिए संघर्षरत है।

मन्नू भण्डारी का ‘आपका बंटी’ इनका एक बहुचर्चित और महत्वपूर्ण उपन्यास है। इस उपन्यास की नायिका ‘सशुन’ है। वह पढ़ी-लिखी शिक्षित नारी है, किन्तु परिस्थितियों वश उसका पति से तलाक हो जाता है। आधुनिक विचारधारा वाली शकुन व्यावहारिक जीवन में तो इसे स्वीकार कर लेती है किन्तु मानसिक रूप से से वह इसस्थिति को स्वीकार नहीं कर पाती है। टूटन की इस पीड़ा और परम्परागत सम्बन्धों के साथ-साथ आधुनिक बोध के अर्द्धद्वंदों के बीच में वह झूलती रहती है। पती-पत्नी के सम्बन्धों के टूटने का दर्द जो सबसे अधिक भोगते हैं वह हैं बच्चे जिन्हें तिसरे आयाम भी कहा जाता है। तलाक के बाद भारतीय समाज में नारी की क्या स्थिति हो जाती है, उसे शगुन जैसी स्त्री पात्र के माध्यम से अच्छी तरह से समझा जा सकता है। उसे समाज में इस नजर से देखा जाता था कि मानों वह कसूरवार है परम्परा में उसे जीने का हक नहीं है ? उसे की पुरुष की तरह दूसरे विवाह (पुनर्विवाह) की मान्यता समाज को देनी चाहिए। जिससे वह भी अपना भरण-पोषण कर सके और नहीं तो उसके पुनर्विवाह पर इतना वबाल और विरोध क्यों? उ तलाक के बाद स्त्री की सामाजिक स्थिति और सम्बन्धों के टूटने का यथार्थ दर्द मन्नू भण्डारी ने ‘आपका बंटी’ उपन्यास में बंया किया है। इन्होंने भारतीय समाज में पुनर्विवाह को मान्यता प्रदान करने, तलाक शुदा स्त्री भरण-पोषण, बच्चों के लालन-पालन की जो आवाज उठाई है, वह एक प्रकार से स्त्री-विमर्श का ही गूंज है।

मन्नू भण्डारी का ‘स्वामी’ उपन्यास की केन्द्रीय पात्र भी स्त्री मिना है जिसके माध्यम से लेखिका ने राजनीतिक एवं सामाजिक परिवर्तनों के प्रति उसकी सजगता को उजागर

किया है। मिनी शिक्षित है, विवेकशील है, वह अपना अच्छा-बुरा अच्छी तरह से जानती है। उसके जीवन का एक लक्ष्य है, जिस तक उसे पहुँचना है। आधुनिक जीवन शैली और परिवेश में पत्नी वही मिनी प्रेम-विवाह की समर्थक है। इस हेतु वह सामाजिक मान्यताओं एवं पारिवारिक मूल्यों से भी टक्कर लेने को तैयार है। युगीन सन्दर्भों में मन्नू जी ने प्रेम-विवाह को मान्यता देकर जो कदम मिनी द्वारा उठाया गया है, उसका समर्थन कर स्त्री विमर्श को नई दिशा दी है। भारतीय समाज में सन् 1960-70 के दशक तक नारी शिक्षा न के बराबर थी। समय की आवश्यकता को समझते हुए मन्नू भण्डारी ने अपने उपन्यासों की रचना की। इनके स्त्री पात्र न केवल शिक्षित हैं, अपितु उच्च शिक्षा प्राप्त होने से उच्च पदों पर भी आसीन हैं। चाहे वह इनके स्वामी की सौदागिनी हो या 'एक इंच मुस्कान' की रचना या फिर 'आपका बंटी' उपन्यास की शगुन। उपन्यासों के सभी स्त्री प्राप्त शिक्षित होने से रूढ़ एवं जर्जर सामाजिक मान्यताओं को चुनौति देते हैं। मन्नू भण्डारी का मानना है कि स्त्री के व्यक्तित्व के विकास के लिए उसका शिक्षित होना आवश्यक है। शिक्षित होने के कारण ही इनके उपन्यासों के स्त्री पात्र राजनीतिक आर्थिक, सामाजिक एवं सांस्कृतिक क्षेत्रों ने अपनी पहचान दर्ज करवाने में सफल हो सके हैं। शिक्षित नारी आर्थिक रूप से भी आत्मनिर्भर होती है और यही आत्मनिर्भरता उसके पुरुष पराधीनता एवं सामाजिक बन्धनों से मुक्ति दिलाती है। शिक्षा से नौकरी प्राप्त कर आर्थिक रूप से निर्भर एक इंच का मुस्कान की नायिका शकुना सम्बन्ध में लेखिका ने लिखा है कि— "एक इंच मुस्कान की शगुन सा, रे, गा, मा, पा, धि, नि, सा का बेसुरा गीत गाती थी, वही शादी के बाद पति द्वारा घर से निकाल दिये जाने पर आज गर्व से कहती है कि "दिल्ली में रहती हूँ, इधर पास ही स्कूल है अपना संगीत का।" 4 शगुन का यह कथन स्त्री-विमर्श को अन्तर्जातियां सशक्त ढंग से व्यक्त करता है। इनके उपन्यासों के पात्र न केवल अपनी आजादी के प्रति सजग हैं, अपितु वह तो पुर्नविवाह, प्रमविवाह और समाज में क्रांतिकारी परिवर्तन भी ला रहे हैं। सौदागिनी, रजना, शगुन आदि जैसे स्त्री पात्र अपने भविष्य के सम्बन्ध में निर्णय लेने में पूर्णतः सक्षम हैं।

इनके उपन्यासों के नारी चरित्र केवल पीड़ा की चोट से कराहते हुए अपने आपके तन ही अपने को सीमित नहीं रखते अपितु उसके विरुद्ध लड़ाई लड़ने और जीवन जीने का प्रयास भी करते हैं। उपन्यासों में स्त्री चरित्र दबी एवं शोषित रहकर जीना नहीं चाहती वह अपने आप सम्मान के लिए संघर्ष करती है। स्त्री चरित्रों की यही लाचारी और मुक्ति की कामना हेतु संघर्ष स्त्री की नवीन मानसिकता को उजागर करता है, जिससे स्त्री ने पुरुषों द्वारा स्त्री के प्रति बनाई गई समस्त परम्परागत स्त्री छति को छोड़कर अपने आप को नई छवि को उजागर किया है। इनके स्त्री चरित्र अपने असतित्व

के लिए लड़ाई लड़ते हैं, पुरानी जर्जर मान्यताएं एवं रूढ़ियों को तोड़कर आवाज उठाने का साहस भी रखते हैं। अतः सार रूप में कहा जा सकता है कि मन्नू भण्डारी ने अपने उपन्यासों में शगुन, सौदागिनी एवं रजना जैसे स्त्री चरित्रों के माध्यम से स्त्री-विमर्श में सामाजिक सांस्कृतिक और आर्थिक चिन्तन की पृष्ठभूमि प्रस्तुत की है, जो अपने आप एक में उन विमर्श है। अपनी उपन्यासों ने स्त्री असित्व से जुड़े जिन प्रश्नों से हमें अवगत कराया है वह आधुनिक भारतीय समाज और उसके संकटों से जड़े है। इनकी उपन्यासों की स्त्री बदलते समय की ठोस एवं वास्तविक स्त्री है। उसकी आत्मनिर्भरता, आत्मसजगता, मुक्ति प्राप्ति हेतु आत्मसंघर्ष एवं जीवन संघर्ष स जटिलताओं को इन्होंने अपने उपन्यासों में उजागर किया है। यह एक युग सत्य है जो आने वाले समय में स्त्री-विमर्श समाज का मुख्यधार अवश्य बन सकता है।

REFERENCES

1. हिन्दी साहित्य का दूसरा इतिहास : डॉ. बच्चन सिंह, राधाकृष्ण प्रकाशन दिल्ली, पृष्ठ 493
2. यशोधरा खण्डकाव्य : मैथिलीशरण गुप्त, झाँसी प्रकाश, उत्तर प्रदेश, पृष्ठ 40
3. मधुमती हिन्दी मासिक प्रकाश-स्थान, उदयपुर, पृष्ठ 25
4. एक इंच मुस्कान मन्नू भण्डारी : राजपाल एंड संस दिल्ली, 1955
5. आपका बंटी – मन्नू भण्डारी : अक्षर प्रकाशन, दिल्ली, 1977
6. स्वामी – मन्नू भण्डारी पेपर बैन, नोएडा 1979



भारतीय बैंकिंग क्षेत्र पर कोविड-19 के प्रभाव

डॉ. आशा राठी

सहायक आचार्य, व्यावसायिक प्रशासन विभाग, वाणिज्य एवं प्रबन्ध अध्ययन संकाय, जय नारायण व्यास विश्वविद्यालय, जोधपुर

संजु माटी

शोधार्थी (जेआरएफ), व्यावसायिक प्रशासन विभाग, वाणिज्य एवं प्रबन्ध अध्ययन संकाय, जय नारायण व्यास विश्वविद्यालय, जोधपुर

ABSTRACT:

विश्वव्यापी महामारी कोविड-19 ने संपूर्ण अर्थव्यवस्था को प्रभावित किया है, कोई भी क्षेत्र इससे अछूता नहीं है। भारतीय अर्थव्यवस्था के प्राथमिक, द्वितीयक एवं तृतीयक (सेवा) तीनों ही क्षेत्र इससे प्रभावित हुए हैं। भारतीय अर्थव्यवस्था में बैंकिंग प्रणाली का महत्वपूर्ण स्थान है। बैंकिंग उद्योग अर्थव्यवस्था के सेवा क्षेत्र के सबसे महत्वपूर्ण भागों में से एक है। बैंक विभिन्न लोगों को उनकी आवश्यकता अनुसार वित्तीय सेवाएं प्रदान करता है इसलिए बैंकिंग व्यवस्था का सुचारु होना आवश्यक है। उधारकर्ताओं को नौकरी छूटन एवं व्यवसायों को कम बिक्री और लाभों में गिरावट के कारण वित्तीय समस्याओं का सामना करना पड़ा। बैंकिंग क्षेत्र पर कोविड-19 का प्रभाव जैसे मांग में भारी गिरावट, कम आय, उत्पादन बंद होना, स्टाफ की कमी, अपर्याप्त डिजिटल परिपक्वता, ऋण वापसी में कमी के रूप में देखा गया। अधिकांश भारतीय बैंक एनपीए, डूबत ऋण, ग्राहक धोखाधड़ी, ऋण वसूली न होने जैसी समस्याओं का सामना कर रहे हैं। कोविड-19 से बैंकों की समस्याएं और बढ़ गयी हैं। कोविड-19 ने ई-बैंकिंग को बढ़ावा दिया है। इस अध्ययन का उद्देश्य उपलब्ध द्वितीयक समकों के आधार पर भारतीय बैंकिंग क्षेत्र पर कोविड-19 के प्रभाव का पता लगाना है।

KEYWORDS:

कोविड-19, महामारी, अर्थव्यवस्था, बैंकिंग क्षेत्र, लॉकडाउन, वित्तीय सेवाएं।

परिचय

कोरोना वायरस रोग की पहचान पहली बार दिसंबर, 2019 में हुआई चीन की राजधानी वुहान में हुई और पूरी दुनिया में फैल गया। इसके संक्रमण और मृत्यु दर में वृद्धि को देखते हुए विश्व स्वास्थ्य संगठन ने 11 मार्च 2020 को इसे महामारी घोषित किया। कोरोना वायरस विषाणुओं का बहुत बड़ा परिवार है, इसकी फैलने की गति बहुत तेज है। यह सामान्य सर्दी से लेकर गंभीर बीमारी तक कुछ भी पैदा कर सकता है। इसे पूरे देश में फैलने से रोकने के लिए भारत सरकार ने 24 मार्च, 2020 को लॉकडाउन की घोषणा की। कोविड-19 के लक्षण परिवर्तनशील होते हैं, लेकिन इसमें अक्सर बुखार, खांसी, सिरदर्द, थकान, सांस लेने में कठिनाई, गंध की कमी और स्वाद की हानि शामिल होती है। कोरोना तब फैलता है जब कोई व्यक्ति वायरस से युक्त बूंदों या कणों वाली दूषित हवा में सांस लेता है। कोविड-19 से बचाव हेतु कई कोविड-19 टीकों को विभिन्न देशों में अनुमोदित एवं वितरित किया गया। बड़े पैमाने पर टीकाकरण अभियान चलाए गए। अन्य निवारक उपायों में सामाजिक दूरी, क्वारंटीन, इनडोर वेंटिलेशन, खांसी व छींक को ढंकना, हाथ धोना और बिना हाथ धोए चेहरे से दूर रखना, फेस मास्क लगाना आदि शामिल हैं।

बैंक एक ऐसी संस्था है जिसका प्राथमिक कार्य जमा स्वीकार करना और जरूरतमंद व्यक्तियों, व्यवसायों और सरकारों को धन उधार देना है इसके अलावा बैंक कई सेवाएं प्रदान करता है जैसे ऋण सुविधाएं, सावधि जमा योजनाएं, डेबिट और क्रेडिट कार्ड सुविधाएं, ऑनलाइन बैंकिंग सुविधाएं आदि। भारतीय अर्थव्यवस्था में बैंकिंग प्रणाली का महत्वपूर्ण स्थान है। बैंकिंग उद्योग अर्थव्यवस्था के सेवा क्षेत्र के सबसे महत्वपूर्ण भागों में से एक है। बैंक विभिन्न लोगों को उनकी आवश्यकता अनुसार वित्तीय सेवाएं प्रदान करता है।

साहित्य की समीक्षा

- **Dr. Asif Perwej (Oct, 2020)** इस पत्र में कोविड-19 महामारी के भारतीय बैंकिंग प्रणाली पर प्रभावों का अध्ययन किया गया है। अध्ययन का उद्देश्य बैंकिंग एवं वित्तीय क्षेत्र पर कोविड-19 के प्रभावों को प्रदर्शित करना है। भारतीय बैंकों पर कोविड के प्रभाव के कारण डिजिटलीकरण एवं परिचालन के लिए अनुकूलतम कदम उठाने के प्रयास किए गए हैं।
- **Dr. Priyanka Bobade, Prof. Anu Alex (Dec, 2020)** इस शोध पत्र का उद्देश्य कोविड-19 के कारण भारतीय रिजर्व बैंक द्वारा अपनी नीतियों में किए गए परिवर्तनों एवं भारतीय बैंकिंग क्षेत्र पर कोविड-19 के प्रभावों का अध्ययन करना है। शोध में पाया गया कि भारतीय बैंकिंग प्रणाली ने कोविड-19 के कारण बैंकिंग प्रणाली के सुचारु एवं प्रभावी संचालन के लिए कई उपाय जोड़े हैं। अधिकांश भारतीय बैंक एनपीए, डूबत ऋण, ग्राहक धोखाधड़ी, ऋण वसूली न होने जैसी समस्याओं का सामना कर रहे हैं। कोविड-19 से बैंकों की समस्याएं और बढ़ गयी हैं।
- **Dr. Jitender Singh and Dr. B. S. Bodla (2020)** इस लेख में लॉकडाउन क कारण बैंकों और गैर-बैंकिंग वित्तीय संस्थाओं पर महामारी के

प्रभावों का आकलन किया गया है। लॉकडाउन जिसके परिणामस्वरूप सभी व्यावसायिक संगठन, शैक्षणिक संस्थान, सार्वजनिक एवं निजी कार्यालय, परिवहन के साधन आदि बंद हो गए। इस संबंध में निष्कर्ष विभिन्न समूहों जिसमें अर्थशास्त्री, वित्तीय संस्थानों जैसे आईएमएफ, विश्व बैंक एवं परामर्श फर्मों द्वारा व्यक्त विचारों पर आधारित है।

- **Vikas Kumar and Sanjeev Kumar (Jan, 2021)** इस लेख में भारतीय अर्थव्यवस्था एवं इसके बैंकिंग क्षेत्र पर कोविड-19 के प्रभावों का अवलोकन किया गया। अध्ययन हेतु कोविड-19 महामारी के प्रकोप पर प्रकाशित विभिन्न शोध लेखों का विश्लेषण किया। इसमें देश की वर्तमान आर्थिक स्थिति को सुधारने हेतु केन्द्र सरकार, राज्य सरकार और भारतीय रिजर्व बैंक द्वारा किए गए विभिन्न नीतिगत उपायों का विश्लेषण किया गया है।
- **Ambrish Kumar Mishra, Archana Patel and Sarika Jain (Feb, 2021)** इस लेख में भारतीय बैंकिंग क्षेत्र के निष्पादन पर कोविड-19 के नतीजों को उजागर करने का प्रयास किया गया इसके लिए सबसे बड़े व्यापक ज्ञान आधार जिसे ऑन्टोलोजी कहा जाता है, का निर्माण एवं मूल्यांकन किया उसी को जारी रखते हुए भारतीय अर्थव्यवस्था के संबंध में कुछ महत्वपूर्ण शोध प्रश्नों को संबोधित किया।
- **Poonam Sharma, & Neha Mathur (May, 2021)** इस पत्र का उद्देश्य भारतीय बैंकिंग क्षेत्र पर कोविड-19 के प्रभावों का आकलन करना है। इस उद्देश्य को प्राप्त करने के लिए इंटरनेट की विभिन्न साइटों पर उपलब्ध साहित्यों के आधार पर कुछ निष्कर्ष निकाले गए हैं। कोविड-19 के कारण प्रौद्योगिकीकरण को बढ़ावा मिला साथ ही साथ बैंकिंग के चार प्रमुख क्षेत्रों नवीन तकनीकी को गले लगाने, डिजिटलीकरण के माध्यम, सुरक्षा, गोपनीयता, ग्राहक विश्वास, नीति एवं अनुपालन के नवीनीकरण पर ध्यान केन्द्रित होगा।
- **Dr. Nilam Panchal (June, 2021)** शोध पत्र कोविड-19 के कारण एनपीए, अग्रिम एवं लाभप्रदता के बीच संबंधों के विश्लेषण एवं भारतीय बैंकिंग क्षेत्र में भारतीय रिजर्व बैंक तथा सरकार द्वारा किए गए उपायों के प्रभावों को जानने का प्रयास है। अध्ययन हेतु चार भारतीय बैंकों का विश्लेषण किया गया। लाभदायकता पर एनपीए एवं अग्रिम के प्रभाव की जांच के लिए सहसंबंध गुणांक जैसी सांख्यिकीय विधियों का उपयोग कर समकों का विश्लेषण किया गया।
- **Priya Rupam (May, 2022)** इस पत्र का उद्देश्य बैंकिंग एवं वित्तीय क्षेत्र पर कोविड-19 महामारी के प्रभावों को प्रदर्शित करना है। अर्थव्यवस्था के दिल के रूप में बैंक निगम एवं व्यक्तियों को वित्त पोषण करता है इसलिए बैंकों की स्थिरता सिस्टम को चालू रखने के लिए के लिए महत्वपूर्ण है।

अध्ययन का उद्देश्य

इस अध्ययन का उद्देश्य उपलब्ध द्वितीयक समकों के आधार पर भारतीय बैंकिंग क्षेत्र

पर कोविड-19 के प्रभाव का पता लगाना है। समकों का संकलन विभिन्न वेबसाइटों, शोध पत्रों, लेखों, बैंकों के वार्षिक प्रतिवेदनों से किया जाएगा।

भारतीय बैंकिंग क्षेत्र पर कोविड-19 के प्रभाव

विश्वव्यापी महामारी कोविड-19 ने संपूर्ण अर्थव्यवस्था को प्रभावित किया है, कोई भी क्षेत्र इससे अछूता नहीं है। भारतीय बैंकिंग क्षेत्र पर भी कोरोना महामारी का प्रभाव देखा गया। उधारकर्ताओं को नौकरी छूटने एवं व्यवसायों को कम बिक्री और लाभों में गिरावट के कारण वित्तीय समस्याओं का सामना करना पड़ा। बैंकिंग क्षेत्र पर कोविड-19 का प्रभाव जैसे मांग में भारी गिरावट, कम आय, उत्पादन बंद होना, स्टाफ की कमी, अपर्याप्त डिजिटल परिपक्वता, ऋण वापसी में कमी के रूप में देखा गया। अधिकांश भारतीय बैंक एनपीए, डूबत ऋण, ग्राहक धोखाधड़ी, ऋण वसूली न होने जैसी समस्याओं का सामना कर रहे हैं। कोरोना वायरस के कारण भारतीय बैंकिंग क्षेत्र ने सुधार के लिए डिजिटल मार्केटिंग की ओर रुख किया है। कोविड-19 ने ई-बैंकिंग को बढ़ावा दिया है।

महामारी से संबंधित पहली प्रतिक्रिया के रूप में आपूर्ति श्रृंखला जम गई, मांग में गिरावट आई, और विशेष रूप से संपर्क-गहन सेवाओं पर खर्च करने के अवसरों की कमी के कारण जबरन बचत में वृद्धि हुई। इन कारकों के संगम के परिणामस्वरूप जमा में वृद्धि के बावजूद ऋण वृद्धि में तेज गिरावट आई, जिससे बैंकों का शुद्ध ब्याज मार्जिन प्रभावित हुआ। बांड बाजार में प्रतिफल में गिरावट ने एक आशा की किरण प्रदान की, क्योंकि बैंकों ने अपने व्यापारिक खातों पर मुनाफा दर्ज किया। ऋण स्थगन, संपत्ति की गुणवत्ता में ठहराव और ऋणों के पुनर्गठन जैसे उपायों ने उधारकर्ताओं के साथ-साथ उधारदाताओं को अस्थायी राहत प्रदान की, हालांकि कुछ बैंकों को कम लाभप्रदता का सामना करना पड़ा। बैंकिंग स्टॉक अन्य क्षेत्रों की तुलना में विशेष रूप से प्रतिकूल रूप से प्रभावित हुए, क्योंकि भविष्य में परिसंपत्ति गुणवत्ता की बाजार कीमत में गिरावट, शेयरधारक के धन और आत्मविश्वास को प्रभावित करने वाली है। (RBI, 2021a)

भारतीय बैंकिंग पर कोविड-19 के अल्पकालीन प्रभाव-

- डाटा/इन्फ्रास्ट्रक्चर तक पहुंचने में असमर्थता
- वित्तीय संस्थाओं के मूल्यांकन में अस्थायी सुधार, रिटर्न में अपेक्षित कमी के साथ
- नियमित संचालन के लिए शाखाओं तक पहुंचने में कठिनाई
- ऋण भुगतान में कमी या चूक
- गैर आवश्यक कार्यों को कम करना
- घरेलू एवं सीमा पार व्यापार में उल्लेखनीय कमी

भारतीय बैंकिंग पर कोविड-19 के दीर्घकालीन प्रभाव-

- वितरित कार्यबल साझा सेवाओं के लिए बढ़ती प्राथमिकता
- डिजिटल लेनदेन की आवश्यकता एवं प्राथमिकता में वृद्धि
- स्वास्थ्य एवं जीवन बीमा पॉलिसी के लिए बढ़ती प्राथमिकता
- सीमित परिणियोजन अवसरों के कारण अधिशेष पूंजी का संवय
- आय एवं मार्जिन में कमी के कारण ऋण बकायादारों में बढ़ोतरी
- गैर-निष्पादित सम्पत्तियों में वृद्धि

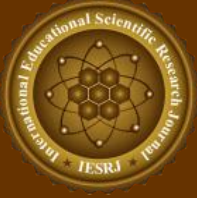
निष्कर्ष

कोविड-19 ने विश्व के सभी उद्योगों को प्रभावित किया है। कोविड-19 महामारी के वैश्विक प्रभाव से बैंकों व वित्तीय सेवा क्षेत्र को कई समस्याओं का सामना करना पड़ रहा है। इन चुनौतियों से निपटने के लिए बैंकों को प्रौद्योगिकी का लाभ उठाना जारी रखना चाहिए और अपने बुनियादी ढांचे में लचीलेपन का निर्माण करना चाहिए। भारत में बैंकिंग सेवाओं को आवश्यक सेवाओं की सूची में शामिल किया गया है। ग्राहकों और कर्मचारियों दोनों के लिए परिचालन और तकनीकी चुनौतियों ने एक आपातकालीन स्थिति का सामना करने के लिए हमारे प्रतिबंध प्रणालियों में एक कमी और चपलता की सामान्य कमी को उजागर किया। वित्तीय संस्थान कर्मचारियों के लिए एक अनुकूल स्वस्थ वातावरण की सुविधा प्रदान करते हैं और काम करने के तरीकों के लिए नई प्रक्रियाओं पर कर्मचारियों को फिर से तैयार करते हैं। वे डिजिटल चैनलों के माध्यम से ग्राहक-केन्द्रित दृष्टिकोण को बढ़ावा देते हैं। कोविड-19 महामारी के कारण स्थिति में बदलाव को देखते हुए सरकार ने लोगों को नये उद्योग वातावरण के लिए नवीन

व्यवसाय मॉडल तैयार करने हेतु प्रोत्साहित किया है। नवीनतम तकनीक का लाभ उठाकर मजबूत डिजिटल पारिस्थितिकी तंत्र बनाने पर ध्यान केंद्रित किया है।

REFERENCES

1. Dr. Asif Perwej.2020, The Impact of Pandemic Covid-19 on the Indian Banking System. Int J Recent Sci Res. 11(10), pp. 39873-39883. DOI: <http://dx.doi.org/10.24327/ijrsr.2020.1110.5578>
2. Bobade, Priyanka, and Prof A. Alex. "Study the Effect of Covid-19 in Indian Banking Sector." *JournalNX*, 2020, pp. 179-184.
3. Sharma, Poonam & Mathur, Neha. (2021). covid-19 impact of banking sector.
4. Dr. Nilam Panchal. (2021). IMPACT OF COVID-19 ON BANKING IN INDIA: AN EMPIRICAL ANALYSIS. Towards Excellence: An Indexed, Refereed & Peer Reviewed Journal of Higher Education, 13(2), 446-459.
5. Rupam, Priya. (2022). IMPACT OF COVID-19 ON INDIAN BANKING SYSTEM. EPRA International Journal of Economics, Business and Management Studies (EBMS), 9(5), 40-46.
6. Patel, Archana & Jain, Sarika & Mishra, Ambrish. (2021). Impact of Covid-19 Outbreak on Performance of Indian Banking Sector.
7. Kumar, Vikas & Kumar, Sanjeev. (2021). Impact of Covid-19 on Indian Economy with Special Reference to Banking Sector: An Indian Perspective. 10.1732/IJLMH.25393.
8. Singh, Jitender & Bodla, Bhag. (2020). COVID-19 PANDEMIC AND LOCKDOWN IMPACT ON INDIA'S BANKING SECTOR: A SYSTEMIC LITERATURE REVIEW.
9. <https://rbi.org.in/Scripts/PublicationsView.aspx?id=21039>
10. <https://en.wikipedia.org/wiki/COVID-19>



प्राचीन भारतीय साहित्य एवं ग्रंथों में पर्यावरण संरक्षण एवं भारतीय मूल्य

डॉ. भूपेन्द्र कुमार जाँगिड.

सहायक आचार्य, *VSY (भूगोल विभाग) राजकीय स्नातकोत्तर महाविद्यालय, बारों, जिला-बारों (राजस्थान)

ABSTRACT:

प्रकृति और मानव का अटूट संबंध सृष्टि के निर्माण के साथ ही चला आ रहा है। धरती सदैव ही समस्त जीव-जन्तुओं का भरण-पोषण करने वाली रही है।

“क्षिति, जल, पावक, गगन, समीरा, पंच रचित अति अधम सररीरा।”

इन पाँच तत्वों से सृष्टि की संरचना हुई है। बिना प्रकृति के जीवन की कल्पना ही नहीं की जा सकती। भौतिक युग में जहाँ विकास के नाम पर मानव ने प्रकृति के सुंदर स्वरूप को क्षति पहुँचा पर्यावरण को ही चुनौती देकर अपने जीवन को ही संकट में डाल दिया है। इस स्थिति में पर्यावरण की सुरक्षा के लिए जागरूकता फैलाना अति आवश्यक हो गया है। विश्व पर्यावरण दिवस 2020, प्रकृति के साथ हमारे सह-अस्तित्व एवं साहचर्य की ओर ध्यानाकर्षण का एक विशेष अवसर है। प्रारंभ से ही, मानव जाति स्थानीय से वैश्विक स्तर तक प्रकृति के साथ सम्यक् संतुलन स्थापित करने का प्रयास कर रही है। प्राकृतिक संसाधनों के दोहन को लेकर मनुष्य के बढ़ते लालच का परिणाम संपूर्ण ब्रह्मांड के लिए विनाशकारी साबित हुआ है। पृथ्वी के पर्यावरण को उस समय से हानि होनी प्रारम्भ हो गयी, जब मानव व्यवसायी हुआ था। प्रागैतिहासिक काल में मनुष्य अपनी आजीविका के लिए संग्रहण व आखेट पर निर्भर था। लेकिन समय के साथ मनुष्य अपने ज्ञान के आधार पर प्रकृति का अतिदोहन करके अपनी आवश्यकता की पूर्ति करता गया। इसी के साथ जनसंख्या का आकार भी बढ़ता गया। जिसके कारण मनुष्य अधिक संसाधन उत्पन्न करने लगा। जिससे पर्यावरण ह्रास होना प्रारम्भ हो गया। ज्ञान एवं तकनीक के विकास के साथ-साथ मनुष्य के द्वारा कृषि विस्तार और अन्य विविध प्रकार से विकास के नाम पर वनों का विनाश व नये-औजारों का आविष्कार किया गया। तकनीकी बढ़ने के साथ ऊर्जा संसाधन को काम में लेने लगा या यों कह सकते हैं कि नई-नई मशानों व यातायात के साधनों का विकास हुआ। इस प्रकार मानव विकास के साथ पर्यावरण का अधिक दोहन करने लगा।

KEYWORDS:

पर्यावरण, पारिस्थितिकी, भारतीय साहित्य, दर्शन, संरक्षण, संवर्धन, पंचतत्व, भारतीय मूल्यों, दार्शनिक परम्परा, धार्मिक वृक्षों, वेद, पुराण, रामायण, रामचरितमानस, खेजड़ली।

लेख प्रस्तावना :

आज के समकालीन युग में पर्यावरण और पारिस्थितिकी शब्दों का जीवमण्डल से घनिष्ठ सम्बन्ध है। पारिस्थितिकी पर्यावरण अध्ययन का ही एक विज्ञान है। पर्यावरण और पारिस्थितिकी की महत्ता इतनी बढ़ गयी है कि अब यह पूर्व की भाँति केवल वनस्पति शास्त्र या जैविक विज्ञान का ही क्षेत्र नहीं रह गया है, अपितु सभी प्राकृतिक विज्ञानों और सामाजिक विज्ञानों में इसके अध्ययन पर बल दिया जा रहा है। दर्शन भी पर्यावरण के प्रभाव से स्वतन्त्र नहीं रह सकता, क्योंकि दर्शन जैसे भी सम्पूर्ण सार्वभौम का बौद्धिक एवं समालोचनात्मक अध्ययन करता है। आज दर्शन केवल सैद्धान्तिक, अमूर्त एवं अव्यावहारिक नहीं रह गया है, अपितु जीवन, जगत तथा प्रकृति से जुड़ी व्यावहारिक समस्याओं और मूर्त सिद्धान्तों का भी यह अध्ययन करता है। दर्शन के अन्तर्गत हम बौद्धिक दृष्टिकोण अपनाते हैं तथा बिना किसी पूर्वाग्रह तथा पक्षपातपूर्ण धारणा के समय का सम्यक मूल्यांकन करते हैं तथा इसके बौद्धिक समाधान को ढूँढ़ने का प्रयास करते हैं। पारिस्थितिकी दर्शन में भी पहले हमें पारिस्थितिकी के घटकों का विश्लेषण करना होगा, उनके पारस्परिक सम्बन्ध की व्याख्या करनी होगी तथा तुलनात्मक ऐतिहासिक विश्लेषण करना होगा जिससे वर्तमान पर्यावरणीय संकट के मूल कारण को समझा जा सके। दार्शनिक दृष्टिकोण अपनाते हुए हमें प्रकृति और मनुष्य के पारस्परिक सम्बन्ध का विश्लेषण करना होगा तथा यह देखना होगा कि प्राचीन काल में पर्यावरण संकट और पारिस्थितिकी असंतुलन क्यों नहीं रहा होगा। आज वे कौनसी नई परिस्थितियाँ आ गई हैं जिनके कारण मानव अस्तित्व के समक्ष यह भयावह संकट उत्पन्न हो गया है ?

जहाँ तक पर्यावरण संरक्षण की बात है, भारत सांस्कृतिक मूल्यों और धार्मिक लोकाचार की समृद्ध परम्परा वाला देश रहा है। वेदों और प्राचीन भारतीय ग्रंथों में पृथ्वी को माता का दर्जा दिया गया है।

अथर्ववेद में कहा गया है – “माता भूमिः, पुत्रो अहं प्रथिव्याः”

अर्थात् “यह भूमि मेरी माता है और मैं इस पृथ्वी का पुत्र हूँ।” यहाँ प्रकृति के पंचतत्वों अर्थात् जल, अग्नि, आकाश, पृथ्वी और वायु की पूजा पीढ़ियों से होती रही है। देश भर में पेड़-पौधे, पहाड़, नदियों और फसलों की पूजा की विभिन्न धार्मिक मान्यताएँ रही हैं। गोवर्धन पूजा, छठ पूजा, तुलसी, आक, वटवृक्ष पूजा, बैसाखी, गोदावरी पुष्करम, बिहू, राजापुर्बा, मकर संक्रांति या पोंगल जैसे त्यौहारों की जड़ें प्रकृति से जुड़ी हैं और ये प्रकृति संरक्षण और सम्मान का शाश्वत संदेश देते हैं। भारत विश्व का एक मात्र देश है, जिसे ईश्वर ने 6 विभिन्न ऋतुओं से सुशोभित किया है यथा – ग्रीष्म, शरद, वर्षा, हेमंत, शिशिर और बसंत। ये 6 ऋतुएँ हमें प्रकृति के अनुसार जीवन व्यतीत करने की शिक्षा भी प्रदान करती हैं। लगभग एक सदी पहले महान भारतीय वैज्ञानिक जगदीश चन्द्र बसू ने ही यह सिद्ध किया था कि पेड़-पौधों, वनस्पति में भी जीवन होता है, ये भी हमारी तरह ही लगाव एवं दर्द महसूस करते हैं। यहां बिश्नोई समाज का जिज्ञा

करना प्रासंगिक प्रतीत होता है, जिसने हमेशा से ही प्रकृति एवं पर्यावरण संरक्षण का शाश्वत संदेश दिया है। 1730 के खेजड़ली नरसंहार को याद कीजिए जब अमृता देवी बिश्नोई के नेतृत्व में 363 महिलाओं ने खेजड़ली वृक्ष के संरक्षण के लिए अपना जीवन का सर्वोच्च बलिदान दिया था। इन सदियों पुरानी परंपराओं और रीति-रिवाजों के कारण प्रकृति के साथ हमारा एक भावनात्मक और सहज संबंध रहा है।

पर्यावरण संरक्षण भारतीय मूल्यों में अंतर्निहित :

पर्यावरण संरक्षण भारतीय मूल्यों में अंतर्निहित रहा है और वैश्विक सम्मेलनों और संघियों में हमारी भागीदारी में भी यह भाव दिखाई देता है। खतरनाक कचरे को सीमापार ले जाने को नियंत्रित करने संबंधी बेसल कन्वेंशन, रसायन और कीटनाशी के अंतर्राष्ट्रीय व्यापार संबंधी रॉटरडैम कन्वेंशन, लगातार जैविक प्रदूषण (पीओपी) से मानव स्वास्थ्य और पर्यावरण की रक्षा के लिए स्टॉकहोम कन्वेंशन, तापमान के संबंध में वैश्विक रूप से बाध्यकारी साधन विकसित करने के लिए मिनामाटा कन्वेंशन, जैव विविधता संबंधी रियो डी जेनेरियो कन्वेंशन, आर्द्रभूमि के संरक्षण के लिए रामसर कन्वेंशन, ओजोन परत की रक्षा के लिए वियना कन्वेंशन, जलवायु परिवर्तन संबंधी संयुक्त राष्ट्र फ्रेमवर्क कन्वेंशन (यूएनएफसीसीसी) के लिए पेरिस समझौते जरूरी मुद्दों को उठाते हैं और अब हमारी नीतियों की आधारशिला हैं। 1987 में प्रकाशित ‘आवर कॉमन फ्यूचर’ जिसे ‘ध्रुवलैण्ड रिपोर्ट’ भी कहते हैं, में सतत विकास को परिभाषित करते हुए कहा गया कि “हमें प्राकृतिक संसाधनों का उपयोग इस प्रकार करना चाहिए की आने वाली पीढ़ियों के लिए संसाधनों की कमी न हो।”

भारत प्राचीनकाल से ही संसाधनों के विवेकपूर्ण उपयोग पर बल देता है। भारत अंतर्राष्ट्रीय सौर गठबंधन (आईएसए) के माध्यम से सौर ऊर्जा क्षमता बढ़ाने की वैश्विक मुहिम का नेतृत्व कर रहा है। गौरतलब है कि महज कुछ महीने पहले ही, तमाम देश 2020 से पूर्व के क्योटो प्रोटोकॉल की जगह 2020 के बाद पेरिस समझौते को अपनाने की तैयारी कर रहे थे, लेकिन अब कोरोना महामारी ने स्थितियों पूरी तरह से बदल दी हैं और हमें कोविड पश्चात् के समय के लिए नए नियम अपनाने होंगे। अब हमें मानवता और प्रकृति की रक्षा के लिए अधिक मुखर और व्यापक होकर तथा सामूहिकता की भावना से कार्य करने होंगे।

संयुक्त राष्ट्र जलवायु परिवर्तन सम्मेलन में, अलग-अलग जिम्मेदारियों और क्षमता के बावजूद समानतापूर्ण और साझा सिद्धांतों को अपनाने के प्रति भारत का दृष्टिकोण इस बात का प्रमाण है कि हम प्रकृति और मानवता के बीच सौहार्दपूर्ण और टिकाऊ संतुलन प्राप्त करने में विश्वास रखते हैं। हाल ही में विशाखापट्टनम में गैस लीकेज की घटना एवं केरल के मल्लापुरम में गर्भवती हथिनी की निर्मम अमानवीय हत्या हमारे लिए चिंता का विषय है। इन विषयों में त्वरित कार्यवाही एवं जागरूकता की महती आवश्यकता

है ताकि ऐसी घटनाओं की पुनरावृत्ति न हो। पर्यावरण संरक्षण और सभी जीवधारियों एवं प्रकृति के साथ साहचर्य विकसित करने के लिए मानव जाति को ज्यादा सहन, करुणा तथा प्रेम का परिचय देना होगा और प्रकृति संरक्षण के सामूहिक प्रयासों को अधिक गति देनी होगी।

भारत के संघीय ढांचे में पर्यावरणीय कार्य पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय का कार्यक्षेत्र है। बॉटैनिकल सर्वे ऑफ इंडिया, भारतीय भूगर्भ सर्वेक्षण, भारतीय वन सर्वेक्षण, भारतीय वन्य जीव संस्थान, केंद्रीय विडियाघर प्राधिकरण, राष्ट्रीय बाघ संरक्षण प्राधिकरण, वन्यजीव अपराध नियंत्रण ब्यूरो, भारतीय जीव कल्याण बोर्ड (एडब्ल्यूबीआई), केंद्रीय और राज्य प्रदूषण नियंत्रण बोर्ड, राष्ट्रीय वानिकी और पारिस्थितिकी विकास बोर्ड, राष्ट्रीय हरित ट्राइब्यूनल और अन्य स्वायत्त निकाय पर्यावरण संरक्षण और सुरक्षा के उपायों को लागू करने और उनकी निगरानी के काम में सक्रियतापूर्वक जुटे हैं। विकास योजना के सफल कार्यान्वयन और पर्यावरण संरक्षण उपायों के पालन में प्रबुद्ध समाज, वैज्ञानिक, व्यवसायी आर उद्योग जगत, गैर-सरकारी संगठनों और अन्य सभी संबंधित पक्षों की भूमिका महत्वपूर्ण होती जा रही है। जोखिमकारी पदार्थ प्रबंधन, रासायनिक सुरक्षा, ई-कचरा प्रबंधन, अपशिष्ट से ऊर्जा निर्माण, ठोस और प्लास्टिक अपशिष्ट प्रबंधन योजना और अन्य योजना के लिए संस्थागत से लेकर व्यक्तिगत स्तर तक सभी हितधारकों को सक्रिय भागीदारी निभानी होगी और साझा जिम्मेदारी वहन करनी होगी।

आज हम पर्यावरण क्रान्ति के दौर से गुजर रहे हैं। मानव ने पर्यावरण के सम्बन्ध में इतनी चिन्ता कभी भी प्रदर्शित नहीं की जितनी कि वर्तमान में देखने को मिलती है। पारिस्थितिक ज्ञान के आलोक में यह स्पष्ट हो चुका है कि मानव भी पर्यावरण का ही एक भाग है। उसका पर्यावरण से स्वतन्त्र अस्तित्व नहीं है। वायु, जल, भूमि, वनस्पति, पेड़, पौधे, पशु, मानव, सब मिलकर पर्यावरण बनाते हैं। प्रकृति में इन सबकी मात्रा और इनकी रचना कुछ इस प्रकार से व्यवस्थित है कि पृथ्वी पर एक संतुलनमय जीवन चलता रहे। आज इस संतुलन के भंग होने के कारण पर्यावरणीय संकट एक ज्वलन्त समस्या बन गयी है जिसके प्रति विश्व में व्यापक चेतना जागृत हुई है। फलतः ज्ञान की एक नई शाखा पर्यावरण विज्ञान अस्तित्व में आयी है।

प्राचीन भारतीय दार्शनिक परम्परा और पर्यावरण

प्राचीन भारतीय दार्शनिक परम्परा में वेदों, उपनिषदों, पुराणों, षड्दर्शन, बौद्ध दर्शन, जैन दर्शन का प्रभुत्व रहा है। जहाँ इसमें मानव, सृष्टि, ब्रह्माण्ड, जीव तथा ब्रह्म का विस्तृत वर्णन किया गया है, वहीं प्राचीन दर्शन में पारिस्थितिकी को भी संतुलित रखने का सुन्दरतम समावेशित प्रयास किया गया है। जहाँ परम्परागत चिंतन में पारिस्थितिकी मानवीय अन्तर्सम्बन्धों का गहन अध्ययन देखने को मिलता है, वहीं उसके संरक्षण एवं संवर्धन का भी विस्तृत वर्णन किया गया है। जल, वायु, सूर्य, चन्द्रमा, नदियों, पर्वतों, पृथ्वी, आकाश, अग्नि, प्राणवायु, पेड़-पौधों व जीव-जन्तुओं को देवता मानकर उनकी पूजा करने का वर्णन मिलता है जो महान प्राचीन पारिस्थितिकी दर्शन को दर्शाता है। मानव के अस्तित्व से लेकर आज तक की घटनाएँ इंगित करती हैं कि इस सृष्टि के रचयिता ने संघर्ष टालने के दृष्टिकोण से सर्वाधिक जैविक गुण मानव में आरोपित कर उसके सर्वश्रेष्ठ जीव बनने का मार्ग प्रशस्त किया। यही कारण है कि मनुष्य एक साथ पारिस्थितिकी का घटक और कारक बन गया।

अपने पौरुष, ज्ञान, विज्ञान, तकनीक, उद्यम और कल्पनाशक्ति के बल पर मानव भौतिक परिवेश के साथ-साथ सांस्कृतिक परिवेश का निर्माणकर्ता बना है। इसके सांस्कृतिक परिदृश्य की रचना क्रमिक विकास को इंगित करती है। आखेट और भोजन संग्रह काल को मानव सभ्यता का आदि काल कहा जा सकता है। अन्य जीवों की ही तरह इस अवस्था में मनुष्य भी पूर्णतः प्रकृति पर आधारित था। इस समय मनुष्य की आवश्यकताएँ इतनी सीमित थीं कि प्रकृति इन्हें आसानी से पूरा कर देती थी। आदिवासियों की सीमित संख्या और सीमित आवश्यकताओं के कारण मानव प्रकृति सम्बन्ध अति मधुर थे। परिणामतः मानव पारिस्थितिकी पूर्णतः संतुलित थी। सभ्यता के विकास क्रम में पशुपालन एवं पशुचारण काल में पशुओं को जीवित पकड़ने की स्थिति मानव को और अधिक सुविधा देने का काल था। शिकार में सहायता करने के लिए सर्वप्रथम कुत्ता मनुष्य का दोस्त बना होगा। इतना सब होने के बाद भी प्रकृति के साधनों के दोहन की क्षतिपूर्ति प्रकृति आसानी से कर लेती थी।

कृषि काल में भरण-पोषण की बढ़ती सुविधा के कारण जहाँ एक ओर जनसंख्या की उत्तरोत्तर वृद्धि होती गयी, वहीं दूसरी ओर जनसंख्या का विस्तार होता गया। कृषि भूमि के लिए वन-विनाश, सिंचाई के लिए बांधों का निर्माण, चारागाह आदि से पारिस्थितिकी में संघर्ष उत्पन्न हुआ और सोच विकसित हुई कि -

“प्रकृति लाभ देती नहीं है, प्रकृति से लाभ लिया जाता है।”

इस भावना ने औद्योगिक क्रान्ति को जन्म दिया और बड़े पैमाने पर वनों का विनाश हुआ। उन्नीसवीं सदी के मध्य से एक साथ विज्ञान, तकनीकी और औद्योगिक विकास का युग प्रारम्भ हुआ। वस्तु निर्माण, यातायात व नगरीकरण आदि ने मानव जीवन पद्धति को नया आयाम दिया। सुख सुविधाओं के कारण जनसंख्या तेजी से बढ़ने लगी जिसके लिए भोजन, वस्तु, मकान आदि जुटाने के लिए प्राकृतिक संसाधनों का वहद पैमाने पर दोहन हुआ। मनुष्य में प्रकृति पर विजय प्राप्त करने की लालसा जगी।

मानव के विकृत जीवन मूल्यों को देखते हुए बहुत पहले यूरोपीय दार्शनिक और शिक्षाशास्त्री रूसो ने टिप्पणी की थी कि - “नगर मानव सभ्यता के कब्रगाह बनेंगे।”

आज यह कथन चरितार्थ हो रहा है। नगर आज प्रदूषण, अस्वस्थता, शोषण, विकृत जीवन मूल्य और यातना के केन्द्र बनते जा रहे हैं। कृषि में कृत्रिम उर्वरकों का अधिकाधिक प्रयोग होने लगा है। कीटनाशक दवाओं के प्रयोग में वृद्धि हुई है। कृषि भूमि के लिए वनों को साफ किया जा रहा है। विज्ञान और प्रौद्योगिकी ने मानव को अनेक भौतिक सुख-सुविधाएँ दी हैं, परन्तु प्राकृतिक संसाधनों के अविवेकपूर्ण दोहन से जैविक, रासायनिक व रेडियोधर्मी प्रदूषणों में वृद्धि हो रही है, जिस कारण आज मानव का अस्तित्व संकट में जान पड़ता है। वैश्विक तापमान में वृद्धि होना, ओजोन पर्त में छिद्र होना, पशु, पक्षियों व वनस्पतियों की प्रजातियों का विलुप्त होना आज विश्व के सामने चुनौती बनी हुई है।

प्राचीन भारतीय चिन्तन में भारतीय दर्शन व संस्कृति में अतिप्राचीन काल से ही प्रकृति को आदरपूर्ण व सम्मानजनक स्थान दिया जाता रहा है। मानव समाज के ऐतिहासिक विकास क्रम का अवलोकन करने से यह सुस्पष्ट हो जाता है कि जब तक मनुष्य प्रकृति पर आधारित था, मानव-प्रकृति सम्बन्ध समन्वयात्मक और सामंजस्यपूर्ण था, तब तक मानव अस्तित्व के समक्ष कोई संकट नहीं उत्पन्न हुआ था। जैसे-जैसे प्रकृति के प्रति मनुष्य के दृष्टिकोण में परिवर्तन होता गया, वह भौतिकवादी, सुविधाभोगी तथा आर्थिक मनुष्य हो गया, उसकी आवश्यकताएँ बढ़ती गईं, प्रकृति का शोषण करने की प्रवृत्ति बढ़ती गई, तभी से ही पारिस्थितिकी में असन्तुलन होना प्रारम्भ हुआ तथा आज संकटपूर्ण स्थिति उत्पन्न हो गई है। पहले यह विचारधारा प्रधान थी कि प्रकृति हमें अपना उपहार देती है, जबकि अब यह विचारधारा प्रधान हो गई है कि प्रकृति से उपहार लिया जाता है। आर्थिक और तकनीकी ज्ञान से सम्पन्न आधुनिक मानव प्रकृति को भोग्य मानता है तथा प्रकृति का अधिकतम शोषण करना अपने विकास के लिए परमावश्यक मानता है।

भारतीय परंपरा में धरती को 'माता' कहा जाता है जो अपने सभी संतानों का पालन-पोषण बिना भेद-भाव के स्वयं कष्ट उठाकर भी सदैव करती है। स्पष्ट है कि कोई भी संतान धृष्ट और उददंड होने पर भी अपनी माता का निरादर नहीं कर सकती। वेदों-उपनिषदों में मंत्रोच्चारण का अभिन्न हिस्सा शांति पाठ रहा है जिसमें पृथ्वी, आकाश, जल, वायु आदि की शान्ति पाठ रहा है जिसमें पृथ्वी, आकाश, जल, वायु आदि की शान्ति के लिए कामना प्रार्थना की जाती है। आर्ष ग्रन्थों के अध्ययन तथा धार्मिक अनुष्ठानों से ज्ञात होता है कि कैसे हमारे पूर्वजों ने भूमि को देवत्व प्रदान कर पृथ्वी, जल, और वायु को प्रदूषण से मुक्त रखने का सार्थक प्रयत्न किया था। उपासना के अवसर पर जल कलश स्थापना व पूजा सहित नदियों का उल्लेख मात्र आडम्बर नहीं है - गंगा, यमुनाश्चैव, गोदावरी, सरस्वती, नर्मद, सिंधु, कावेरी, जले, सन्निधिम् कुरु इनके पीछे चिंतन विशेष की पृष्ठभूमि है।

पर्यावरण संरक्षण में विभिन्न धार्मिक वृक्षों का योगदान

भारतीय दर्शन में हिन्दु परिवारों में पौधे उनके जीवन के आवश्यक अंग माने जाते रहे हैं। अनेक वृक्षों की पूजा की जाती है तथा पूजा की सामग्री के रूप में प्रयोग किया जाता है। इसके परिणामस्वरूप मनुष्य ने पर्यावरण के प्रति सकारात्मक रवैया अपनाया। विभिन्न पेड़-पौधों की देवी-देवताओं से भी सम्बन्धित क्रिया, जिससे उपयोगी पौधों तथा वृक्षों का संरक्षण हो सके, क्योंकि ऋषि-मुनियों को इसका सही ज्ञान था, जैसे : तुलसी - राम, शिव, विष्णु, कृष्ण, लक्ष्मी व जगन्नाथ आदि। पीपल - विष्णु, लक्ष्मी, दुर्गा आदि। आंवला - विष्णु, लक्ष्मी आदि। अशोक - बुद्ध, इन्द्र, आदित्य, विष्णु आदि। बेल - शिव, दुर्गा, सूर्य, लक्ष्मी आदि। आम - गोवर्धन, लक्ष्मी, बुद्ध आदि। कदम्ब - कृष्ण, शिव आदि।

श्रीमद्भगवद् गीता में भी इस की श्रेष्ठता का स्पष्ट उल्लेख है, श्री कृष्ण, अर्जुन से कहते हैं - “अश्वत्थः सर्व वृक्षाणां, देवर्षीणां च नारदः। गन्धर्वाणां चित्ररथः, सिद्धानां कपिलो मुनिः।।”

शास्त्रों में उल्लेख है कि “अश्वत्थः पूजितोयत्र पूजिताः सर्व देवताः।” अर्थात् पीपल की पूजा विधि विधान के अनुसार करने से सम्पूर्ण देवता स्वयं ही पूजित हो जाते हैं। अथर्ववेद में पीपल वृक्ष में देवताओं का निवास बताया गया है- “अश्वत्थो देवसदनः”।

पर्यावरण संरक्षण में विभिन्न जीवों का योगदान

भारतीय दर्शन में अनेकों जीव हिन्दु देवी-देवताओं के वाहन के रूप में प्रयुक्त किए जाते रहे हैं तथा भगवान ने विभिन्न जीव अवतारों के माध्यम से अनेकों असुरों का संहार कर सृष्टि को बचाया है। इन जीवों में भगवान का वास होने के कारण हिन्दू धर्म के लोग इनको पूजते हैं। जैसे : गाय - सम्पूर्ण 33 कोटि देवी-देवता का वास। बैल (नंदी) - भगवान शिव। शेर - माँ दुर्गा। मूसक - श्री गणेश। सफेद हाथी - मा लक्ष्मी एवं भगवान इन्द्रदेव व गणेश जी। उल्लू - माँ लक्ष्मी। श्वेत हंस - माँ सरस्वती। मोर - भगवान कार्तिकेय। गरुड़ - भगवान विष्णु। मगरमच्छ - माँ गंगा। भैंसा - यमराज। कुत्ता - शनिदेव। नेवला - भगवान कुबेर। घोड़ा - सूर्यदेव। बंदर - हनुमान जी। सांप - शिवजी।

भारतीय संस्कृति पारिस्थितिकी संतुलन से कैसे जुड़ी रही है, इससे हमारे यहाँ होने

वाली वृक्ष-पूजा के विचार से जोड़कर देखा जा सकता है। वृक्ष को देवता मानकर पूजने की हमारी सांस्कृतिक मान्यता पारिस्थितिकी संतुलन का वैज्ञानिक आधार लिए हुए है। 'कठोपनिषद्' की कारिका है –

“ऊँ शनिदेवो अभिष्टो आपो भवन्तु न पिवते, मूले ब्रह्मा त्वचा विष्णु शाखायाम् तु शंकरम्,
पत्रे-पत्रे देवानाम् वृक्षराज नमस्तुते।”

स्कन्ध पुराण के अनुसार – “सभी प्रकार के पेड़ों का काटना निन्दनीय है। यज्ञ आदि के अलावा ऐसा कभी नहीं किया जाना चाहिए। विशेषकर वर्षा ऋतु में तो ऐसा करना सर्वथा वर्जनीय है।”

इससे पूर्व पर्यावरण संरक्षण के लिए नदियों के देवत्व वाला स्वरूप उभरकर हमारे समक्ष उपस्थित हुआ था। नदी सूक्त में कहा गया है –

“गंगे च यमुने चैव गोदावरि सरस्वती। नर्मदे सिंधु कावेरि जलेऽस्मिन् सन्निधिं कुरु।।”

प्राचीन भारत के वैदिक वांग्मय में ऐसे अनेक सूक्त-ऋचाएँ उक्तियों कथानक मिलते हैं जिनमें प्रकृति के प्रति गहरा श्रद्धाभाव है।

यजुर्वेद का अध्ययन इस तथ्य का संकेत करता है कि उसके शांति पाठ में पर्यावरण के सभी तत्वों को शांति और संतुलित बनाये रखने का उत्कृष्ट भाव है, वहीं इसका तात्पर्य है कि समुचे विश्व का पर्यावरण संतुलित और परिष्कृत हो।

ऋग्वेद की ऋचा कहती है – “हे वायु ! अपनी औषधी ले आओ और यहां से सब दोष दूर करो, क्योंकि तुम ही सभी औषधियों से भरपूर हो।”

सामवेद कहता है – “इन्द्र! सूर्य रश्मियों और वायु से हमारे लिए औषधि की उत्पत्ति करो। हे सोम! आपने ही औषधियों, जलों और पशुओं को उत्पन्न किया है।”

अथर्ववेद मानता है कि – “मानव जगत के अधिक सन्निकट है। व्यक्ति स्वस्थ, सुखी दीर्घायु रहे, नीति पर चले और पशु वनस्पति एवं जगत के साथ साहचर्य रखे।”

वैदिक कर्मकाण्डों की अनेक विधाओं ने भी पर्यावरण संरक्षण और सुरक्षा का दायित्व निभाया है। रामायणकालीन सभी ग्रन्थों में जड़ व चेतन सभी तत्वों को चेतना सम्पन्न बताया गया है। रामचरितमानस के उत्तरकाण्ड में वर्णन मिलता है कि चरागाह तालाब हरित भूमि, वन-उपवन के सभी जीव आनंदपूर्वक रहते थे। भगवान् कृष्ण द्वारा गायी गीता में प्रकृति को सृष्टि का उपादान कारण बताया गया है। प्रकृति के कण-कण में सृष्टि का रचयिता समाया हुआ है। ऋग्वेद के सूक्त प्रकृति और पर्यावरण शुद्धि से ही जुड़े हैं –

“नियद्यामाय वो गिरिर्नि सिन्धवो विधर्मणे महे शुभ्राय येमिरे।।”

ऋग्वेद के धावा-पृथिवी सूक्त में आकाश को पिता और धरती को माता मानकर उससे अन्न और यश देने की कामना की गई है –

“ते नो गुणाने महिनी महि श्रवः क्षत्रः द्यावा पृथ्वी धासथो वृहत।

येनामि कृष्टीस्ततनाम विश्वहा पनाय्यमोजो अस्मे समन्वित।।”

भारतीय प्राचीन साहित्य में पर्यावरण संरक्षण एवं संवर्धन का महत्ता:

आज जहां पर्यावरण संरक्षण के लिए लोगों में जागरूकता फैलाने के लिए विश्व में एक दिवस निर्धारित किया गया है जिसे पर्व के रूप में मनाया जाता है। वहीं भारतीय परंपराएँ सनातन काल से ही पर्यावरण को संरक्षित एवं सुरक्षित करने के लिए ही विकसित की गई थीं। भारतीय संस्कृति सदैव ही प्रकृति और पर्यावरण के महत्व एवं संरक्षण के प्रति सदैव ही जागरूक रही है। पर्यावरण के प्रति अगाध प्रेम व समर्पण की भावना हमारे धार्मिक ग्रन्थों व वेदों, पुराणों, उपनिषद्, रामायण, रामचरित मानस, महाभारत एवं लोक साहित्य में परिलक्षित होती है। हमारे मनीषियों ने पर्यावरण के संरक्षण-संवर्धन को विशेष महत्व दिया है।

भारत में प्रत्येक भाषा-साहित्य में प्रकृति से जुड़े प्रत्येक तत्वों का बड़ी सूक्ष्मता और सुंदरता के साथ वर्णित करते हुए, उसे देवतुल्य मानकर उसकी उपासना की गई है। यहाँ पंच महाभूत अग्नि, जल, वायु, पृथ्वी, आकाश के साथ ग्रह-नक्षत्र, नदियाँ, तालाबों, पर्वत, पेड़-पौधों, जीव-जंतुओं सभी में ईश्वरीय सत्ता को स्वीकारते हुए उनके प्रति आदर-सम्मान की भावना परिलक्षित होती है। भारतीय परंपराओं में पर्यावरण अभिन्न अंग रहा है। प्रत्येक परम्पराओं के पीछे एक वैज्ञानिक तथ्य जुड़ा है।

वेदों को सृष्टि विज्ञान का प्रमुख ग्रंथ माना गया है। वेदों में पर्यावरण संतुलन के महत्व को प्रतिपादित करते हुए जल, वायु, अग्नि, पृथ्वी का स्तवन अनेक स्थलों में किया गया है। अग्नि को पिता के समान कल्याणकारी कहा गया है।

‘अग्ने! सूनवे पिता इव नः स्वस्तये आ सचस्व’

ऋग्वेद का प्रथम मंत्र ही अग्नि तत्व के स्तवन से होता है।

ऋग्वेद में जल के महत्व को इस प्रकार बताया गया है – ‘अप्सु अन्तःअमृतं, अप्सु भेषजं’।

अर्थात् जल में अमृत है, जल में औषधि गुण विद्यमान रहते हैं अस्तु, आवश्यकता है जल की शुद्धता, स्वच्छता बनाये रखने की।

ऋग्वेद के ऋषि का आशीर्वादात्मक उद्गार है – “पृथ्वीःपूच उर्वी भव”।

अर्थात् समग्र पृथ्वी संपूर्ण परिवेश परिशुद्ध रहे, नदी, पर्वत, वन, उपवन सब स्वच्छ रहें, गांव, नगर सबको विस्तृत और उत्तम परिसर प्राप्त हों तभी जीवन का सम्यक विकास हो सकेगा।

यजुर्वेद में यज्ञ विधियाँ एवं यज्ञ में प्रयोग किये जाने वाले मंत्र हैं। यज्ञ स्वयं एक चिकित्सा है। यज्ञ वायु मंडल को शुद्ध कर रोगों और महामारियों को दूर करता है। अथर्ववेद में आयुर्वेद का अत्यंत महत्व है। अनेक प्रकार की चिकित्सा पद्धति एवं जड़ी बूटियाँ तथा शल्य चिकित्सा व विभिन्न रोगों का वर्णन है। सामवेद में ऐसे मंत्र मिलते हैं जिनसे ये प्रमाणित होता है कि वैदिक ऋषियों को ऐसे वैज्ञानिक सत्यों का ज्ञान था जिनकी जानकारी आधुनिक वैज्ञानिकों को सहस्राब्दियों बाद प्राप्त हो सकी।

वेदों के पश्चात् रामायण और रामचरित मानस की बात करें तो महर्षि वाल्मीकि एवं तुलसीदास जी ने मनुष्य के जीवन को सात्विक और सुंदर बनाने के लिए प्राकृतिक पर्यावरण की विशुद्धता पर विशेष बल दिया है तभी मानव जीवन आनंदकारी हो सकेगा। इन्होंने प्राकृतिक अवयवों को उपभोग की वस्तु नहीं मानते हुए समस्त जीवों और वनस्पतियों के बीच अटूट प्रेम सम्बन्ध भी स्थापित किया है।

तुलसीदास ने वनों की सुंदरता व उपयोगिता के साथ वन्य जीवों के परस्पर संबंध का वर्णन इस प्रकार किया है – “फूलहिं फलहिं सदा तरु कानन, रहहिं एक संग जग पंचानन।

खग मृग सहज बयर बिसरार्ई, सबन्धि परस्पर प्रीति बढ़ार्ई।।”

पर्यावरण संरक्षण को महत्व देते हुए तुलसीदास लिखते हैं, –

“रीझि-खीझि गुरुदेव सिष सखा सुविहित साधु।

तोरि खाहु फल होई भलु तरु काटे अपराधु।।”

अर्थात् तुलसीदास ने वृक्ष से फल खाना तो उचित माना, लेकिन वृक्ष को काटना अपराध माना है।

वृक्षारोपण की परंपरा भी स्वाभाविक है जो प्राचीन काल से चली आ रही है। भगवान् रामचंद्र जी के विवाह पश्चात् राज्याभिषेक की तैयारी के अवसर पर गुरु वशिष्ठ ने आदेश दिया –

“सफल रसाल पूगफल केरा, रोपहु बीथिन्ह पुर चहुँ फेरा ।”

श्रीराम ने भी 14 वर्ष के वनवास को अपने सौभाग्य के कारण माना जो उनके प्रकृति प्रेम को इंगित करता है। वनवास काल में सीता जी एवं लक्ष्मण ने भी वृक्षारोपण किया – “तुलसी तरुवर विविध सुहाए, कहुँ कहुँ सियँ कहुँ लखन लगाए।” अयोध्या नगरी में सभी ने सुमन वाटिकाएँ, लताएँ आदि लगाई हैं। नीचे के उदाहरण में “सबहिं” शब्द विशेष महत्व का है अर्थात् रोपण सभी को करना है उसका आकार, प्रकार जैसा भी हो।

“सुमन वाटिका सबहिं लगाई। विविध भौंति करि जतन बनाई।।

लता ललित बहु जाति सुहाई। फूलहिं सदा बसन्त की नाई।।”

रामचरित मानस के सुंदरकांड में लंका के प्राकृतिक सौंदर्य एवं पर्यावरण के सुव्यवस्थित स्वरूप का चित्रण इस प्रकार है— “बन बाग उपवन बाटिका सर कूप बापी सोहहिं”।

रामचरित मानस में पर्यावरण के महत्व व संरक्षण के साथ मानव के अटूट संबंध को दर्शाया गया है।

रामायण कालीन ग्रंथों में सजीव-निर्जीव दोनों तत्वों को चेतना सम्पन्न बताया गया है। वाल्मीकि जी ने रामायण में प्रकृति के मनोरम दृश्यों का वर्णन किया है। ऋषि मुनियों के आश्रम हरियाली युक्त थे जिनमें जीव-जंतु एवं पशु-पक्षियों का समूह स्वच्छन्द विचरण करते थे। महाभारत काल में भी मनीषियों ने पर्यावरण की महिमा का गान किया है। भगवान् श्रीकृष्ण का बाल्यकाल प्रकृति की गोद में बीता। उन्होंने तो पग-पग पर पर्यावरण संरक्षण के संकेत दिए।

हमारे ऋषि मुनियों ने पृथ्वी का आधार ही जल और जंगल को माना है—

“वृक्षाद वर्षन्ति पर्जन्यः पर्जन्यादन्न संभवः”

अर्थात् वृक्ष जल है, जल अन्न है, अन्न जीवन है। जंगल को आनन्ददायक कहते हैं।

सम्राट विक्रमादित्य, चन्द्रगुप्त मौर्य, सम्राट अशोक के शासनकाल में भी वन्य जीवों एवं वनों के संरक्षण पर विशेष बल दिया गया। आचार्य चाणक्य ने तो आदर्श शासन व्यवस्था के लिए अनिवार्य रूप से अरण्य पालों की नियुक्ति करने की बात कही है। हिन्दू धर्म व जीवन में चार आश्रम निर्धारित हैं जिनमें से ब्रह्मचर्य, वानप्रस्थ और सन्यास का सीधा संबंध वनों से माना गया है। वृक्षों को देवता मानकर पूजने से उनका संरक्षण भी हो जाता है। मत्स्य पुराण में वृक्ष की तुलना मनुष्य के दस पुत्रों से की गई है।

“दशकूप समावापीः दशवापी समोहदः, दशहृद समःपुत्रो, दशपुत्र समोद्भुतः”।

पर्यावरणीय तत्वों में समन्वय होना ही सुख शांति का आधार है। दूसरे शब्दों में पदार्थों का परस्पर समन्वय ही शांति है। प्राकृतिक पदार्थों में शांति की वैदिक भावना है कि

“शं न उरुची भवतु स्वधाभिः।”

ऋग्वेद 7.35.3 (अन्नादि से युक्त पृथिवी हमारी शांति के लिए हो।)

“स्योना पृथिवी नो भवानृक्षरा निवेशनी यच्छा नः शर्म सप्रथाः।”

यजुर्वेद 36.13 (पृथिवी हमारे लिए कंटक रहित और बसने योग्य हो।) प्रकृति के दोहन, शोषण से मनुष्यों ने प्रकृति के नियमों की अवहेलना कर समस्त प्राणियों के जीवन को संकट में डाल दिया है। परिणामस्वरूप प्राकृतिक आपदाओं के रूप में प्रकृति दंड देने से नहीं चूकती है।

वैदिक साहित्य में प्राकृतिक पदार्थों से कल्याण की कामना को स्वस्ति कहा गया है, जिसका आचार्य सायण “अविनाशं क्षेमं—सुरक्षित क्षेम” अर्थ किया है। इस नैरुक्त चिंतन है —

“अलक्ष्यस्य लाभो योगः, प्राप्तस्य संरक्षणं क्षेमः”

अप्राप्त वस्तु की प्राप्ति योग है तथा प्राप्त का संरक्षण क्षेम। अतः सहज सुलभ प्राकृतिक पदार्थों का सुरक्षित रहना ही स्वस्ति है। इसीलिए हमारे मनीषियों ने उद्घोष किया है —

“ओम द्यौ शान्तिः, अंतरिक्ष शान्तिः, पृथ्वी शान्तिः, आपःशान्तिः।”

अतः मनुष्य को अपने मन, वचन और आचरण एवं व्यवहार से प्रकृति के कोप को शांत करके ही अपना जीवन सुखी और शांत बना सकता है। भारतीय ग्रंथों में पर्यावरण संरक्षण का वैज्ञानिक सरल उपाय —

“अश्वत्थमेकम् पितृमन्दमेकम् न्यग्रोधमेकम् दश चित्रिचणीकान्।

कपित्थबिल्वोऽऽमलकत्रयञ्च पञ्चाऽऽम्रमुत्पा नरकन् पश्येत्।।”

स्कंदपुराण :

1. अश्वत्थः = पीपल (100 प्रतिशत कार्बन डाइऑक्साइड सोखता है) 2. पितृमन्दः = नीम (80 प्रतिशत कार्बन डाइऑक्साइड सोखता है) 3. न्यग्रोधः = वटवृक्ष (80 प्रतिशत कार्बन डाइऑक्साइड सोखता है) 4. चित्रिचणी = इमली (80 प्रतिशत कार्बन डाइऑक्साइड सोखता है)

5. कपित्थः = कवित (80 प्रतिशत कार्बन डाइऑक्साइड सोखता है) 6. बिल्वः = बेल (85 प्रतिशत कार्बन डाइऑक्साइड सोखता है) 7. आमलकः = आवला (74 प्रतिशत कार्बन डाइऑक्साइड सोखता है) 8. आम्रः = आम (70 प्रतिशत कार्बन डाइऑक्साइड सोखता है)

(उचित = पौधा लगाना) अर्थात् —जो कोई इन वृक्षों के पौधों का रोपण करेगा, उनकी देखभाल करेगा, उसे नरक के दर्शन नहीं करने पड़ेंगे। इस सीख का अनुसरण न करने के कारण हमें आज नरक के दर्शन हो रहे हैं। पीपल, बरगद और नीम जैसे वृक्ष रोपना बंद होने से सूखे की समस्या बढ़ रही है। ये सारे वृक्ष वातावरण में ऑक्सीजन की मात्रा बढ़ाते हैं। साथ ही धरती के तापमान को भी कम करते हैं।

हमने इन वृक्षों के पूजने की परंपरा को अन्धविश्वास मानकर फटाफट संस्कृति के चक्कर में इन वृक्षों से दूरी बनाकर यूकेलिप्टस (नीलगिरी) के वृक्ष सड़क के दोनों ओर लगाने की शुरुआत की। यूकेलिप्टस झट से बढ़ते हैं लेकिन ये वृक्ष दलदली जमीन को सुखाने के लिए लगाए जाते हैं। इन वृक्षों से धरती का जलस्तर घट जाता है। विगत 40 वर्षों में नीलगिरी के वृक्षों को बहुतायत में लगा कर पर्यावरण की हानि की गई है।

आगामी वर्षों में प्रत्येक 500 मीटर के अंतर पर यदि एक एक पीपल, बड़, नीम आदि का वृक्षरोपण किया जाएगा, तभी अपना भारत देश प्रदूषण मुक्त होगा। घरों में तुलसी के पौधे लगाना होंगे। हम अपने संगठित प्रयासों से ही अपने भारत को नैसर्गिक आपदा से बचा सकते हैं। भविष्य में हमारी आने वाली पीढ़ी को भरपूर मात्रा में नैसर्गिक ऑक्सीजन मिले इसके लिए आज से ही अभियान आरंभ करने की आवश्यकता है। हम पीपल, बड़, बेल, नीम, आवला एवं आम आदि वृक्षों को लगाकर आने वाली पीढ़ी को निरोगी एवं “सुजलां सुफलां पर्यावरण” देने का प्रयत्न करना चाहिए।

भारतीय परम्पराओं का पर्यावरण संरक्षण से नाता पुराना है.....

भौतिक विकास के पीछे दौड़ रही दुनिया ने आज जरा ठहरकर सांस ली, तो उसे अहसास हुआ कि चमक-धमक के फेर में क्या कीमत चुकाई जा रही है। आज ऐसा कोई देश नहीं है जो पर्यावरण संकट पर मंथन नहीं कर रहा हो। भारत भी चिंतित है। लेकिन, जहां दूसरे देश भौतिक चकाचौंध के लिए अपना सबकुछ लुटा चुके हैं, वहीं भारत के पास आज भी बहुत कुछ है। पश्चिम के देशों ने प्रकृति को हद से ज्यादा नुकसान पहुंचाया है। पेड़ काटकर जंगल के कंक्रीट खड़े करते समय उन्हें अंदाजा नहीं था कि इसके क्या गंभीर परिणाम होंगे? प्रकृति को नुकसान पहुंचाने से रोकने के लिए पश्चिम में मजबूत परंपराएं भी नहीं थीं।

प्रकृति संरक्षण का कोई संस्कार अखण्ड भारत भूमि को छोड़कर अन्यत्र देखने में नहीं आता है। जबकि सनातन परम्पराओं में प्रकृति संरक्षण के सूत्र मौजूद हैं। हिन्दू धर्म में प्रकृति पूजन का प्रकृति संरक्षण के तौर पर मान्यता है। भारत में पेड़-पौधों, नदी-पर्वत, ग्रह-नक्षत्र, अग्नि-वायु सहित प्रकृति के विभिन्न रूपों के साथ मानवीय रिश्ते जोड़े गए हैं। पेड़ की तुलना संतान से की गई है तो नदी को मां स्वरूप माना गया है। ग्रह-नक्षत्र, पहाड़ और वायु देवरूप माने गए हैं।

प्राचीन समय से ही भारत के वैज्ञानिक ऋषि-मुनियों को प्रकृति संरक्षण और मानव के स्वभाव की गहरी जानकारी थी। वे जानते थे कि मानव अपने क्षणिक लाभ के लिए कई मौकों पर गंभीर भूल कर सकता है। अपना ही भारी नुकसान कर सकता है। इसलिए उन्होंने प्रकृति के साथ मानव के संबंध विकसित कर दिए। ताकि मनुष्य को प्रकृति को गंभीर क्षति पहुंचाने से रोका जा सके। यही कारण है कि प्राचीन काल से ही भारत में प्रकृति के साथ संतुलन करके चलने का महत्वपूर्ण संस्कार है। यह सब होने के बाद भी भारत में भौतिक विकास की अंधी दौड़ म प्रकृति पददलित हुई है। लेकिन, यह भी सच है कि यदि ये परंपराएं न होती तो भारत की स्थिति भी गहरे संकट के किनारे खड़े किसी पश्चिमी देश की तरह होती। हिन्दू परंपराओं ने कहीं न कहीं प्रकृति का संरक्षण किया है। हिन्दू धर्म का प्रकृति के साथ कितना गहरा रिश्ता है, इसे इस बात से समझा जा सकता है कि दुनिया के सबसे प्राचीन ग्रंथ ऋग्वेद का प्रथम मंत्र ही अग्नि की स्तुति में रचा गया है।

हिन्दुत्व वैज्ञानिक जीवन पद्धति है। प्रत्येक हिन्दू परम्परा के पीछे कोई न कोई वैज्ञानिक रहस्य छिपा हुआ है। इन रहस्यों को प्रकट करने का कार्य होना चाहिए। हिन्दू धर्म के संबंध में एक बात दुनिया मानती है कि हिन्दू दर्शन “जियो और जीने दो” के सिद्धांत पर आधारित है। यह विशेषता किसी अन्य धर्म में नहीं है। हिन्दू धर्म का सह-अस्तित्व का सिद्धांत ही हिन्दुओं को प्रकृति के प्रति अधिक संवेदनशील बनाता है। वैदिक वाङ्मय में प्रकृति के प्रत्येक अवयव के संरक्षण और सम्बर्द्धन के निर्देश मिलते हैं। हमारे ऋषि जानते थे कि पृथ्वी का आधार जल और जंगल है। इसलिए उन्होंने पृथ्वी की रक्षा के लिए वृक्ष और जल को महत्वपूर्ण मानते हुए कहा है — ‘वृक्षाद् वर्षति पर्जन्यः पर्जन्यादन्न सम्भवः’ अर्थात् वृक्ष जल है, जल अन्न है, अन्न जीवन है।

जंगल को हमारे ऋषि आनंददायक कहते हैं — ‘अरण्यं ते पृथिवी स्योनमस्तु’

यही कारण है कि हिन्दू जीवन के चार महत्वपूर्ण आश्रमों में से ब्रह्मचर्य, वानप्रस्थ और संन्यास का सीधा संबंध वनों से ही है।

हम कह सकते हैं कि इन्हीं वनों में हमारी सांस्कृतिक विरासत का सम्बर्द्धन हुआ है। हिन्दू संस्कृति में वृक्ष को देवता मानकर पूजा करने का विधान है। वृक्षों की पूजा करने के विधान के कारण हिन्दू स्वभाव से वृक्षों का संरक्षक हो जाता है। सम्राट विक्रमादित्य और अशोक के शासनकाल में वन की रक्षा सर्वोपरि थी। चाणक्य ने भी आदर्श शासन व्यवस्था में अनिवार्य रूप से अरण्यपालों की नियुक्ति करने की बात कही है। हमारे महर्षि यह भली प्रकार जानते थे कि पेड़ों में भी चेतना होती है। इसलिए उन्हें मनुष्य के समतुल्य माना गया है।

ऋग्वेद से लेकर बृहदारण्यकोपनिषद्, पद्मपुराण और मनुस्मृति सहित अन्य वाङ्मयों में इसके संदर्भ मिलते हैं। छान्दोग्यउपनिषद् में उद्दालक ऋषि अपने पुत्र श्वेतकेतु से आत्मा का वर्णन करते हुए कहते हैं कि ‘वृक्ष जीवात्मा से ओतप्रोत होते हैं और मनुष्यों की भाँति सुख-दुःख की अनुभूति करते हैं।’ हिन्दू दर्शन में एक वृक्ष की मनुष्य के दस पुत्रों से तुलना की गई है— “दशकूप समावापीः दशवापी समोहदः। दशहृद समःपुत्रो दशपत्र समोद्द्रुमः।।”

घर में तुलसी का पौधा लगाने का आग्रह भी हिन्दू संस्कृति में क्यों है? यह आज सिद्ध हो गया है। तुलसी का पौधा मनुष्य को सबसे अधिक प्राणवायु ऑक्सीजन देता है। तुलसी के पौधे में अनेक औषधिय गुण भी मौजूद हैं। पीपल को देवता मानकर भी उसकी पूजा नियमित इसीलिए की जाती है क्योंकि वह भी अधिक मात्रा में ऑक्सीजन देता है।

परिवार की सामान्य गृहिणी भी अपने अबोध बच्चे को समझाती है कि रात में पेड़-पौधे को छूना नहीं चाहिए, वे सो जाते हैं, उन्हें परेशान करना ठीक बात नहीं। वह गृहिणी परम्परावश ऐसा करती है। उसे इसका वैज्ञानिक कारण नहीं मालूम। रात में पेड़ कार्बन डाई ऑक्सीजन छोड़ते हैं, इसलिए गांव में दिनभर पेड़ की छांव में बिता देने वाले बच्चे-युवा-बुजुर्ग रात में पेड़ों के नीचे सोते नहीं हैं।

देवों के देव महादेव तो बिल्व-पत्र और धतूरे से ही प्रसन्न होते हैं। यदि कोई शिव भक्त है तो उसे बिल्वपत्र और धतूरे के पेड़-पौधों की रक्षा करनी ही पड़ेगी। वट पूर्णिमा और आंवला ग्यारस का पर्व मनाना है तो वटवृक्ष और आंवले के पेड़ धरती पर बचाने ही होंगे। सरस्वती को पीले फूल पसंद हैं। धन-सम्पदा की देवी लक्ष्मी को कमल और गुलाब के फूल से प्रसन्न किया जा सकता है। गणेश दूर्वा से प्रसन्न हो जाते हैं। हिन्दू धर्म के प्रत्येक देवी-देवता भी पशु-पक्षी और पेड़-पौधों से लेकर प्रकृति के विभिन्न अवयवों के संरक्षण का संदेश देते हैं।

जल स्रोतों का भी हिन्दू धर्म में बहुत महत्व है। ज्यादातर गांव-नगर नदी के किनारे पर बसे हैं। ऐसे गांव जो नदी किनारे नहीं हैं, वहां ग्रामीणों ने तालाब बनाए थे। बिना

नदी या ताल के गांव-नगर के अस्तित्व की कल्पना नहीं है। हिन्दुओं के चार वेदों में से एक अथर्ववेद में बताया गया है कि आवास के समीप शुद्ध जलयुक्त जलाशय होना चाहिए। जल दीर्घायु प्रदायक, कल्याणकारक, सुखमय और प्राणरक्षक होता है। शुद्ध जल के बिना जीवन संभव नहीं है।

यही कारण है कि जल स्रोतों को बचाए रखने के लिए हमारे ऋषियों ने इन्हें सम्मान दिया। पूर्वजों ने कल-कल प्रवाहमान सरिता गंगा को ही नहीं वरन सभी जीवनदायनी नदियों को मां कहा है। हिन्दू धर्म में अनेक अवसर पर नदियों, तालाबों और सागरों की मां के रूप में उपासना की जाती है। छान्दोग्योपनिषद् में अन्न की अपेक्षा जल को उत्कृष्ट कहा गया है। महर्षि नारद ने भी कहा है कि पृथ्वी भी मूर्तिमान जल है। अन्तरिक्ष, पर्वत, पशु-पक्षी, देव-मनुष्य, वनस्पति सभी मूर्तिमान जल ही हैं। जल ही ब्रह्मा है। महान ज्ञानी ऋषियों ने धार्मिक परंपराओं से जोड़कर पर्वता की भी महत्ता स्थापित की है।

देश के प्रमुख पर्वत देवताओं के निवास स्थान हैं। अगर पर्वत देवताओं के वासस्थान नहीं होते तो कब के खनन माफिया उन्हें उखाड़ चुके होते। विन्ध्यगिरि महाशक्तियों का वासस्थल है, कैलाश महाशिव की तपोभूमि है। हिमालय को तो भारत का किरीट कहा गया है। महाकवि कालिदास ने "कुमारसम्भवम्" में हिमालय की महानता और देवत्व को बताते हुए कहा है -

‘अस्तुस्तरस्यां दिशि देवतात्मा हिमालयो नाम नगाधिराजः।’

भगवान श्रीकृष्ण ने गोवर्धन की पूजा का विधान इसलिए शुरू कराया था क्योंकि गोवर्धन पर्वत पर अनेक औषधियों के पेड़-पौधे थे, मथुरा के गोपालकों के गोधन के भोजन-पानी का इंतजाम उसी पर्वत पर था। मथुरा-वृन्दावन सहित पूरे देश में दीपावली के बाद गोवर्धन पूजा धूमधाम से की जाती है।

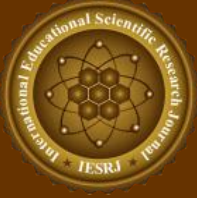
इसी तरह हमारे महर्षियों ने जीव-जन्तुओं के महत्व को पहचानकर उनकी भी देवरूप में अर्चना की है। मनुष्य और पशु परस्पर एक-दूसरे पर निर्भर हैं। हिन्दू धर्म में गाय, कुत्ता, बिल्ली, चूहा, हाथी, शेर और यहां तक की विषधर नागराज को भी पूजनीय बताया है। प्रत्येक हिन्दू परिवार में पहली रोटी गाय के लिए और आखिरी रोटी कुत्ते के लिए निकाली जाती है। चींटियों को भी बहुत से हिन्दू आटा डालते हैं। चिड़ियों और कौओं के लिए घर की मुंडेर पर दाना-पानी रखा जाता है। पितृपक्ष में तो काक को बाकायदा निमंत्रित करके दाना-पानी खिलाया जाता है।

इन सब परम्पराओं के पीछे जीव संरक्षण का संदेश है। हिन्दू गाय को मां कहता है। उसकी अर्चना करता है। नागपंचमी के दिन नागदेव की पूजा की जाती है। नाग-विष से मनुष्य के लिए प्राणरक्षक औषधियों का निर्माण होता है। नाग पूजन के पीछे का रहस्य ही यह है। हिन्दू धर्म का वैशिष्ट्य है कि वह प्रकृति के संरक्षण की परम्परा का जन्मदाता है। हिन्दू संस्कृति में प्रत्येक जीव के कल्याण का भाव है। हिन्दू धर्म के जितने भी त्योहार हैं, वे सब प्रकृति के अनुरूप हैं। मकर संक्रान्ति, वसंत पंचमी, महाशिव रात्रि, होली, नवरात्र, गुड़ी पड़वा, वट पूर्णिमा, ओणम, दीपावली, कार्तिक पूर्णिमा, छठ पूजा, शरद पूर्णिमा, अन्नकूट, देव प्रबोधिनी एकादशी, हरियाली तीज, गंगा दशहरा आदि सब पर्वों में प्रकृति संरक्षण का पुण्य स्मरण है।

निष्कर्ष : पारिस्थितिकी के संतुलन को बनाये रखने के लिए संसाधनों का सदुपयोग पारिस्थितिकीय विकास की अवधारणा पर होना चाहिए। भारत में जनसंसाधन के उपयोग की उपेक्षा उसके पिछड़ेपन का प्रमुख कारण है। अन्त में हम यह कह सकते हैं कि पारिस्थितिकीय विकास की रणनीति जब तक विज्ञान और समाज के समन्वित आधार पर नहीं बनाई जाती, लक्ष्य तक पहुँचना आसान नहीं है क्योंकि विज्ञान को पूर्णतः मानव हित को ओर मोड़ना अति आवश्यक हो गया है। यह सुखद है कि पश्चिमी देशों का भौतिकवादी समाज अब जीवन मूल्यों को नये ढंग से समझने का प्रयास कर रहा है। भारत का प्राचीन पर्यावरणीय चिन्तन भविष्य की दिशा तय करने में सहायक हो सकता है।

REFERENCES

1. डॉ. मुकेश गर्ग (2012), "भारत में जल प्रदूषण : कारण और उपचार", खंड संख्या 2, आईएसएसएन संख्या 2249-5894, पृष्ठ संख्या 555-567।
2. स्टोडडार्ट, डी.आर. (1965), "भूगोल और पारिस्थितिक दृष्टिकोण - भौगोलिक सिद्धांत और विधि के रूप में पारिस्थितिकी तंत्र", भूगोल, पृष्ठ पी 242 - 51, वॉल्यूम 50.
3. भारतेंदु अजय (2013) "वायु प्रदूषण और पौधे के जीवन पर इसका प्रभाव", वॉल्यूम नं. 16, आईएसएसएन - 2319-2119, पृष्ठ संख्या 1130-1133
4. डॉ. शंकर अंभोरे और सभी (2013), पर्यावरण संरक्षण : "भारत में प्रचलित स्थिति का एक महत्वपूर्ण विश्लेषण" खंड संख्या 2, आईएसएसएन नंबर 2277-8160, पेज नं। 35-37.
5. पीयूष कांति भट्टाचार्य (2010) "दुनिया भर में पर्यावरण प्रदूषण मुक्त प्रणाली", वॉल्यूम नं. -1, आईएसएसएन नंबर 2010-264, पेज नंबर 57-59।
6. चौधरी, ए.बी. (1991), "पर्यावरण और हर्ब की पारिस्थितिकी - श्रुब पलोरा", आशीष पब्लिशिंग हाउस, नई दिल्ली, पी पी 530.
7. चड्ढा, एस.के. (1990), "हिमालय: पर्यावरण समस्याएं", आशीष पब्लिशिंग हाउस, नई दिल्ली, पी पी 220.
8. कोल, एम. (1971), "पौधे पशु और पर्यावरण", भौगोलिक पत्रिका, पीपी 230-1, वॉल्यूम 44.
9. दीक्षित, के.आर. (1984), "भूगोल के संगोष्ठी और पर्यावरण के शिक्षण के लिए एक प्रस्तावना", भूगोल विभाग, पूना विश्वविद्यालय।
10. घोष, जी.के. (1994), "पर्यावरण और विकास - भारत की वनस्पतियों के गुण", (2 खंडों में), आशीष पब्लिशिंग हाउस, नई दिल्ली, पी पी 970.
11. हेवित, के. और हरे, एफ.के. (1973), "मनुष्य और पर्यावरणय वैचारिक ढांचे", कॉलेज भूगोल संसाधन पेपर पर आयोग, 20.
12. स्ट्रालर, ए.एन. और स्ट्रालर ए.एच. (1976), "भूगोल और मनुष्य का पर्यावरण", जॉन विले, न्यूयॉर्क
13. कुरैशी, एम.एच. (1994), "पर्यावरण संरक्षण: एक ग्राम समुदाय की धारणा", भूगोल विभाग, राजकीय कला महाविद्यालय, अलवर (राजस्थान)।



ई-लर्निंग : मुद्दे एवं चुनौतियाँ

अंशुल श्रीवास्तव

शोधार्थी (शिक्षा) गोविन्द गुरु जनजातीय विश्वविद्यालय बांसवाड़ा (राज.)

डॉ. विशाल उपाध्याय

शोध निदेशक एवं प्राचाय भारतीय विद्या मंदिर शिक्षक प्रशिक्षण महाविद्यालय बांसवाड़ा (राज.)

ABSTRACT:

वर्तमान में जनता को विशाल पैमाने पर शिक्षा और प्रशिक्षण प्रदान करना, समाज की लगातार बदलती आवश्यकताओं को पूरा करना एवं आर्थिक अस्तित्व के लिए शिक्षा प्रदान करना ईट और गारे पर आधारित स्कूल, कॉलेज और विश्वविद्यालयों में संचालित पारंपरिक शिक्षा प्रणाली के माध्यम से संभव नहीं है। वर्ल्ड वाइड वेब (WWW) का उपयोग संचार, सहयोग, संसाधनों को साझा करने, सक्रिय शिक्षण को बढ़ावा देने और दूरस्थ शिक्षा मोड में शिक्षा के वितरण एवं शिक्षा को बढ़ावा देने के लिए किया जा रहा है। इसके लिए दूरस्थ शिक्षा, ई-लर्निंग एवं आभासी विश्वविद्यालय वांछित समाधान प्रदान करते हैं। ई-लर्निंग को इंटरनेट, वर्ल्ड वाइड वेब एवं अत्याधुनिक तकनीकों के उपयोग द्वारा दूरस्थ शिक्षा के महत्वपूर्ण एवं नवीनतम उपागम के रूप में लिया जा रहा है। हाल ही के वर्षों में दुनिया भर के विश्वविद्यालयों एवं शैक्षिक संस्थानों द्वारा वैश्विक स्तर पर विभिन्न प्रकार की ऑनलाइन सुविधाएँ प्रदान की जा रही हैं। जैसे :- प्रवेश प्रक्रिया, आभासी (ऑनलाइन) सीखने का वातावरण तैयार कर जीवन भर सीखने की सुविधाएँ प्रदान करते हैं एवं इसे अन्य शैक्षिक प्रबंधन गतिविधियों के साथ सुसंगत बनाने के लिए वातावरण तैयार करते हैं। वर्तमान ई-लर्निंग रिसर्च विभिन्न सामाजिक-सांस्कृतिक पक्षों के विस्तृत समूह के भीतर शैक्षिक, तकनीकी एवं संगठनात्मक कारक प्रदान करते हैं। ई-लर्निंग के सम्बंध में मुद्दों एवं चुनौतियों को समझना ई-लर्निंग में शामिल विभिन्न अनुसंधान समुदायों के लिए अत्यंत महत्वपूर्ण स्थान रखते हैं और भविष्य की प्रथाओं को बनाने के लिए महत्वपूर्ण भूमिका निभाते हैं। भारत के अनुसंधान समुदाय से परामर्श एवं सहभागिता करने के लिए एवं अधिक कुशल तकनीकों को बढ़ावा देने के लिए कई शोध मुद्दों और चुनौतियों का समाधान करने की आवश्यकता है।

KEYWORDS:

ई-लर्निंग, दूरस्थ शिक्षा, ई-एज्यूकेशन, वर्चुअल एज्यूकेशन, ऑनलाइन एज्यूकेशन, WWW

परिचय:-

ई-शिक्षा अथवा ई-लर्निंग से तात्पर्य अपने स्थान पर ही इंटरनेट व अन्य संचार उपकरणों की सहायता से प्राप्त की जाने वाली शिक्षा से है। ई-शिक्षा के विभिन्न रूप हैं, जिसमें वेब आधारित लर्निंग, मोबाइल आधारित लर्निंग या कम्प्यूटर आधारित लर्निंग और वर्चुअल कक्षा-कक्ष आदि सम्मिलित हैं।

20वीं शताब्दी में हमने वि० ष रूप से इलेक्ट्रॉनिक एवं कम्प्यूटिंग के क्षेत्र में अभूतपूर्व तकनीकी प्रगति देखी है, जो कि हमारे जीवन एवं दुनिया के प्रति हमारे दृष्टिकोण को अकल्पनीय रूप से बदल रही है। कम्प्यूटिंग एवं संचार क्रांति ने हमारे जीवन की गुणवत्ता में सुधार करते हुए कई चुनौतियों को भी जन्म दिया है। वर्तमान में पूरी दुनिया एक वैश्विक गांव बन चुकी है। वि० के ग्लोबल गांव के दृष्टिकोण के कारण हमारे सामने विभिन्न प्रकार की चुनौतियाँ आ रही हैं :-

1. व्यापार, प्रतिस्पर्धा एवं तकनीकी नवाचार द्रुत गति से बदल रहे हैं।
2. ज्ञान में दिन पर दिन लगातार वृद्धि हो रही है।
3. प्रासंगिक एवं गुणवत्तापूर्ण शिक्षा के अवसरों के सम्बंध में सार्वभौमिक मांग उत्पन्न हो रही है।

संचार तकनीकी के क्षेत्र में हो रहे निरन्तर प्रयासों से सीखने की पारंपरिक व्यूह रचनाओं एवं प्रणाली की तुलना में कम लागत वाले एवं अधिक प्रभावी तरीके उत्पन्न हो रहे हैं। वर्तमान में विद्यार्थियों और शिक्षकों का सीखने एवं सिखाने की प्रक्रिया पर पहले से बेहतर नियंत्रण है। हालांकि फिर भी शैक्षणिक दृष्टिकोण से दो प्रश्न उत्पन्न होते हैं :- 1. ई-लर्निंग का वास्तव में क्या मतलब है। 2. क्या ई-लर्निंग सीखने या शिक्षा का सबसे बेहतर तरीका है। इसमें पहले प्रश्न का उत्तर पूर्ण रूप से अभी नहीं दिया जा सकता क्यों कि इस पर अभी भी चर्चा चल रही है एवं यह अभी भी शोध का विषय है। इस शोध पत्र के माध्यम से शोधकर्ता ई-लर्निंग के विभिन्न मुद्दों एवं चुनौतियों पर प्रकाश डालने की कोशिश कर रहा है। शिक्षा व्यवस्था के क्षेत्र में ई-लर्निंग अनुसंधान हेतु एक बहुत व्यापक क्षेत्र है। इस शोध पत्र में यह ई-लर्निंग के परिचय से प्रारम्भ होता है जो कि ई-लर्निंग एवं दूरस्थ शिक्षा की कुछ परिभाषाओं के साथ आगे बढ़ता है।

कुछ प्रासंगिक परिभाषाएँ एवं स्पष्टीकरण:-

i- दूरस्थ शिक्षा :- दूरस्थ शिक्षा या दूरस्थ शिक्षण इस प्रकार का शिक्षण है, जिसमें भौतिक रूप से विद्यार्थी कक्षा में उपस्थित नहीं होते हैं या जहाँ विद्यार्थी एवं शिक्षक समय और दूरी के साथ अलग होते हैं। दूरस्थ शिक्षा में शिक्षार्थी एवं शिक्षक भौतिक रूप से दूरी पर होते हैं। शिक्षक और शिक्षार्थी के मध्य संचार हेतु विभिन्न प्रकार के माध्यमों जैसे : कम्प्यूटर, टी.वी., रेडियो आदि का उपयोग किया जाता है। दूरस्थ शिक्षा में दो तरफा आदान-प्रदान को सुगम बनाया जाता है। दूरस्थ शिक्षा में विद्यार्थी

एकल या सामूहिक रूप में शिक्षक व्यक्तिगत रूप में उपस्थित होता है।

ii- ई-लर्निंग :- रोजेनबर्ग के अनुसार विभिन्न प्रकार के ज्ञान एवं ज्ञान से सम्बंधित विभिन्न पहलुओं को लोगों के समूह तक इंटरनेट तकनीकों के माध्यम से प्रसारित करना, ई-लर्निंग कहलाता है। रोजेनबर्ग के अनुसार ई-लर्निंग तीन मूलभूत मापदण्डों पर आधारित है। A. सूचनाओं के आदान-प्रदान, वितरण, अद्यतन करने, संचय करने एवं पुनः प्राप्त करने हेतु नेटवर्क की उपस्थिति। B. WWW का उपयोग कर कम्प्यूटर के माध्यम से सूचनाओं का वितरण। C. यह सीखने और सिखाने के व्यापक दृष्टिकोण पर आधारित है।

इस प्रकार ई-लर्निंग को WWW एवं इंटरनेट जैसी अत्याधुनिक तकनीकों का उपयोग करते हुए दूरस्थ शिक्षा के नवीनतम रूप में लिया जा सकता है।

ई-लर्निंग : मुद्दे एवं चुनौतियाँ:-

i) तकनीकी चुनौतियाँ :- ई-लर्निंग के तकनीकी अनुसंधान क्षेत्र में महत्वपूर्ण चुनौतियाँ हैं। इसमें उपयोगकर्ताओं की आवश्यकताओं के अनुसार तकनीकी अनुसंधान संसाधनों का विकास किया जाना चाहिए।

ii) इन्टरैक्टिव लर्निंग एवं सीखने के समुदायों के नये रूपों का विकास :- ई-लर्निंग वातावरण में सीखने के लिए अन्तःक्रिया, सहयोग एवं समुदाय एक महत्वपूर्ण भूमिका निभाते हैं।

ई-लर्निंग के विभिन्न मुद्दे एवं चुनौतियाँ :- 1. तकनीकी चुनौतियाँ 2. सीखने के नये समुदायों का विकास 3. सीखने के लिए नये ज्ञान के आयाम एवं सुविधाओं का विकास

1. तकनीकी चुनौतियाँ :- ई-लर्निंग के अनुसंधान क्षेत्र में विभिन्न प्रकार की महत्वपूर्ण चुनौतियाँ हैं। इसमें विभिन्न प्रकार के उपयोगकर्ताओं के अनुसार विभिन्न प्रकार के ई-लर्निंग संसाधनों का विकास करने की आवश्यकता है।

2. सीखने के नये समुदायों का विकास :- ई-लर्निंग के वातावरण में सीखने के लिए अन्तःक्रिया, आपसी सहयोग एवं सीखने वाला समुदाय एक विशेष भूमिका निभाता है। ई-लर्निंग के क्षेत्र में होने वाले विकासात्मक कार्य सीखने के नये अनुभवों के लिए विभिन्न प्रकार की अन्तःक्रियाओं का सृजन करते हैं। इसमें सीखने वालों एवं कम्प्यूटर के मध्य नये सम्बंधों का विकास होता है और एक नये सीखने वाले समुदाय का विकास होता है। इसके अन्तर्गत मुख्य मुद्दे निम्नलिखित हैं:- 1. ई-लर्निंग को सपोर्ट करने हेतु नई मल्टीमोडल तकनीकों का विकास किया जाना 2. सीखने एवं समझने के लिए सृजित नये समुदायों हेतु नई तकनीकों का विकास 3. एक स्थान से दूसरे स्थान पर स्थानान्तरित होने वाले शिक्षार्थियों के समुदाय हेतु नई तकनीकों

का विकास 4. किसी विशेष उपयोगकर्ता की व्यक्तिगत आवश्यकताओं को पूरा करने हेतु तकनीकों का विकास 5. समय-समय पर मूल्यांकन हेतु तकनीकों का विकास

3. सोखने के लिए नये ज्ञान के आयाम एवं सुविधाओं का विकास :- i. वृहद स्तर पर सीखने की सुविधाओं का विकास ii. सीखने की गतिशील प्रक्रियाओं का विकास iii. सीखने की विभिन्न सुविधाओं के मध्य आपस में सूचनाओं को साझा करने की सुविधाओं का विकास iv. जीवन भर सीखने की ऐसी सुविधाओं का विकास करना जो कि दिमाग पर बोझ ना डालें।

4. सामाजिक असमानता एवं डिजिटल डिवाइड :- कोविड-19 वैश्विक महामारी के कारण देश भर में ऑनलाइन शिक्षा का महत्व काफी बढ़ गया है, किन्तु सामाजिक असमानता और डिजिटल डिवाइड (Digital Divide) ऑनलाइन शिक्षा के समक्ष अभी भी बड़ी चुनौति बने हुए हैं। डिजिटल डिवाइड इंटरनेट एवं संचार प्रौद्योगिकियों के उपयोग एवं प्रभाव के सम्बंध में एक आर्थिक एवं सामाजिक असमानता है।

5. हालांकि जहाँ एक ओर कई विशेषज्ञों ने मौजूदा महामारी के दौर में ऑनलाइन शिक्षा अथवा ई-लर्निंग के महत्व को स्वीकार किया है, वहीं कुछ आलोचकों का मत है कि ऑनलाइन शिक्षा, अध्ययन की पारंपरिक पद्धति का स्थान नहीं ले सकती है, क्योंकि इस पद्धति में शिक्षक व शिक्षार्थी के मध्य होने वाली अन्तःक्रिया का अभाव होता है।

ई-लर्निंग में विभिन्न भोध मुद्दे :- वर्तमान ई-लर्निंग में किये जाने शोध विभिन्न प्रकार के सामाजिक व सांस्कृतिक कारकों को समाहित करते हुए शैक्षणिक, तकनीकी एवं संगठनात्मक पहलुओं को विस्तृत रूप साथ लिए होते हैं। ये सामाजिक एवं सांस्कृतिक कारक ई-लर्निंग शोध के विभिन्न पहलुओं को प्रभावित करते हैं।

1. भारत में लॉकडाउन की शुरुआत से ही लगभग सभी शिक्षण संस्थाएँ, शैक्षणिक कार्यों के लिए ऑनलाइन शिक्षा या ई-लर्निंग को एक विकल्प के रूप में प्रयोग कर रही हैं, ऐसे में देश की आम जनता के बीच ऑनलाइन शिक्षा की लोकप्रियता में अत्यधिक वृद्धि हुई है।

2. मानव संसाधन विकास मंत्रालय (Ministry of Human Resource Development- MHRD) के अन्तर्गत स्कूल शिक्षा और साक्षरता विभाग (Department of School Education and Literacy) के अनुमानानुसार, महामारी के कारण बन्द हुए स्कूलों को फिर से खोलने के लिए स्वच्छता और क्वारान्टाइन उपायों हेतु प्रति स्कूल लगभग 1 लाख रुपये तक खर्च करने की आवश्यकता होगी।

3. लगभग 3.1 लाख सरकारी स्कूलों, जिनके पास सूचना व संचार तकनीक (ICT) सुविधाएँ नहीं हैं, को ऐसी सुविधाओं से लैस करने के लिए केन्द्र सरकार 55,840 करोड़ रुपये का बजट प्रस्तावित करेगी।

4. मानव संसाधन विकास मंत्रालय ने आगामी पाँच वर्षों में डिजिटल पाठ्यक्रम सामग्री और संसाधनों के विकास एवं अनुवाद पर 2,306 करोड़ रुपये खर्च करने का प्रस्ताव किया है।

5. केंद्र सरकार ने वर्ष 2026 तक देश भर के विभिन्न विश्वविद्यालयों में पढ़ने वाले लगभग 4.06 करोड़ छात्रों (देश की कुल छात्र संख्या का लगभग 40 प्रतिशत) को लैपटॉप और टैबलेट प्रदान करने की भी योजना बनाई है तथा इस कार्य के लिये कुल 60,900 करोड़ रुपए का बजट निर्धारित किया गया है।

6. स्कूल शिक्षा और साक्षरता विभाग के अनुसार, केंद्र और राज्य विभिन्न उपकरण उपलब्ध कराने की लागत को फिलहाल 60:40 के अनुपात में साझा करेंगे।

ऑनलाइन शिक्षा की सीमाएँ और चुनौतियाँ:-

1. COVID-19 महामारी से पूर्व भारत के अधिकांश शिक्षण संस्थानों को ऑनलाइन शिक्षा का कोई विशेष अनुभव नहीं रहा है, ऐसे में शिक्षण संस्थानों के लिये अपनी व्यवस्था को ऑनलाइन शिक्षा के अनुरूप ढालना और छात्रों को अधिक-से-अधिक शिक्षण सामग्री ऑनलाइन उपलब्ध कराना एक बड़ी चुनौती होगी।

2. वर्तमान समय में भी भारत में डिजिटल इन्फ्रास्ट्रक्चर की बहुत कमी है, देश में अब भी उन छात्रों की संख्या काफी सीमित है, जिनके पास लैपटॉप या टैबलेट कंप्यूटर जैसी सुविधाएँ उपलब्ध हैं। अतः ऐसे छात्रों के लिये ऑनलाइन कक्षाओं से जुड़ना एक बड़ी समस्या है।

3. शिक्षकों के लिये भी तकनीक एक बड़ी समस्या है, देश क अधिकांश शिक्षक तकनीकी रूप से इतने प्रशिक्षित नहीं हैं कि औसतन 30 बच्चों की एक ऑनलाइन कक्षा आयोजित कर सकें और उन्हें ऑनलाइन ही अध्ययन सामग्री उपलब्ध करा सकें।

4. इंटरनेट पर कई विशेष पाठ्यक्रमों या क्षेत्रीय भाषाओं से जुड़ी अध्ययन सामग्री की कमी होने से छात्रों को समस्याओं का सामना करना पड़ सकता है।

5. कई विषयों में छात्रों को व्यावहारिक शिक्षा (Practical Learning) की आवश्यकता होती है, अतः दूरस्थ माध्यम से ऐसे विषयों को सिखाना काफी मुश्किल होता है।

6. राष्ट्रीय सेम्पल सर्वे रिपोर्ट :- लोकल सर्कल नाम की एक गैर सरकारी संस्था ने सर्वे किया है, जिसमें 203 जिलों के 23 हजार लोगों ने भाग लिया। जिनमें से 43 प्रतिशत लोगों ने यह कहा कि बच्चों की ऑनलाइन कक्षाओं के लिए उनके पास कम्प्यूटर, टैबलेट, प्रिंटर, राउटर जैसी चीजे नहीं हैं। ग्लोबल अध्ययन से पता चलता है कि कवल 24 प्रतिशत भारतीयों के पास स्मार्टफोन है। राष्ट्रीय सेम्पल सर्वेक्षण रिपोर्ट के अनुसार 11 प्रतिशत परिवारों के पास डेस्कटॉप कम्प्यूटर/लैपटॉप/नोट बुक या टैबलेट हैं। इस सर्वे के अनुसार केवल 24 प्रतिशत भारतीय घरों में इंटरनेट की सुविधा है, जिसमें शहरी घरों में इसका प्रतिशत 42 और ग्रामीण घरों में केवल 15 प्रतिशत ही इंटरनेट सेवाओं की पहुँच है।

निष्कर्ष:-

यह शोध पत्र वर्तमान समय में शिक्षा के क्षेत्र और उसकी संभावनाओं के निरूपण के बारे में चर्चा करता है। इस शोध पत्र में चर्चा की गई है कि वर्तमान समय में ई-लर्निंग क्यों जरूरी है। इस शोध पत्र के माध्यम से हमने वर्तमान समय में ई-लर्निंग के क्षेत्र के विभिन्न मुद्दों एवं चुनौतियों के विषय में चर्चा की है। ई-लर्निंग शिक्षा के क्षेत्र में अनुसंधान का एक विस्तृत विषय है। आधुनिक ई-लर्निंग प्लेटफॉर्म को और अधिक सुसज्जित किया जा रहा है।

1. शिक्षण क्षेत्र पर COVID-19 और लॉकडाउन के प्रभाव ने शिक्षण संस्थाओं को शिक्षण माध्यमों के नए विकल्पों पर विचार करने हेतु विवश कर दिया है।
2. भारत में ई-शिक्षा अपनी शैशावावस्था में है, आवश्यक है कि इसकी राह में माजुद विभिन्न चुनौतियों को संबोधित कर ई-शिक्षा के रूप में एक नए शिक्षण विकल्प को बढ़ावा दिया जाए।
3. टेलीविजन और रेडियो कार्यक्रमों के माध्यम से देश के दूरस्थ भागों में स्थित ग्रामीण क्षेत्रों में भी लॉकडाउन के दौरान शिक्षा की पहुँच सुनिश्चित की जा सकती है।

REFERENCES

1. राणा, योगेश 2010 भारत में दूरस्थ शिक्षा : सौरभ पब्लिशिंग हाउस, नई दिल्ली
2. दास,आर.सी. (1995) "शिक्षण प्रभावशीलता" नेशनल पब्लिकेशन हाउस, नई दिल्ली
3. Keegan, D. (1980). On Defining Distance Education: Distance Education1 (1) 13-36
4. Rosenberg, M. J. (2001). E-learning: Strategies for delivering knowledge in the digital age, New York: McGraw-Hill
5. Tomei A, 2003 Challenges of teaching with technology across the curriculum: issues and solutions - Information Science Publishing
6. Rajiv & Manohar Lal (2011) Web 3.0 in Education & Research, BVICAM's International Journal of Information Technology (BIJIT) Vol. 3, ISSN 0973-5658

ONLINE RESOURCES:

1. <https://www.kritik.io/resources/challenges-of-teaching-online>

2. <https://sarkariguider.in/e-learning-in-hindi>

3. <https://www.drishtias.com/hindi/daily-updates/daily-news-editorials/limitations-of-online-learning>

4. <https://hi.wikipedia.org/wiki/E-Shiksha>

5. <https://targetnotes.com/ई-लर्निंग-क्या-है>

6. <https://www.embibe.com/exams/online-learning-challenges-and-solutions/>



कोविड-19 का शिक्षा पर प्रभाव

डॉ. मधु चाहान

व्याख्याता, शाह गोवर्धनलाल काबरा शिक्षक महाविद्यालय जोधपुर (राज.)

ABSTRACT:

कोरोना के दौर में शिक्षण गतिविधियों पर एक तरह से विराम लग गया था परन्तु ऑनलाइन शिक्षण ने नए रास्ते खोले। परिणामस्वरूप शिक्षा अब तेजी से ई-शिक्षा व ऑनलाइन शिक्षा की आरंभ हो रही जा रही है। ऑनलाइन शिक्षा में अपने स्थान पर इंट रनेट द्वारा विभिन्न एप (व्हाट्सअप, गूगल मीट, जूम विडियो इत्यादि) के द्वारा देश-विदेश के किसी भी कोने से विद्यार्थी पढ़ सकते हैं। ऑनलाइन शिक्षा ने लॉकडाउन में चल रही इस मुश्किल को आसान बना दिया है।

KEYWORDS:

महामारी, डिजिटल, स्मार्ट बोर्ड, स्लाइड, प्रोजेक्टर, कम्प्यूटर, परिदृश्य।

1. प्रस्तावना –

फरवरी 2020 से लेकर आज तक सम्पूर्ण विश्व 'कोविड-19' महामारी से जूझ रहा है। इस महामारी के प्रकोप से विश्व में लॉकडाउन के साथ आर्थिक, औद्योगिक, सामाजिक, सांस्कृतिक, शैक्षिक, राजनैतिक, धार्मिक व अन्य सभी प्रक्रियाएँ रुक गई हैं। इस महामारी से बचने के लिए मुँह पर मास्क लगाना, सामाजिक दूरी बनाये रखना, बार-बार हाथ धोना, सैनिटाइज का प्रयोग करना आवश्यक है। देश में कई क्षेत्रों में अनलॉक की प्रक्रिया शुरू हुई परन्तु विद्यालय एवं शिक्षण संस्थानों को दो वर्ष तक खोलने की अनुमति नहीं मिली। अतः विद्यार्थियों की विद्यालयी शिक्षा को निर्बाध रूप से चलाने के लिए सरकारों एवं विद्यालयों द्वारा बच्चों की औपचारिक शिक्षा निरंतर जारी रखने के लिए विभिन्न डिजिटल माध्यमों से ऑनलाइन कक्षा का विकल्प अपनाया गया। परन्तु इससे विद्यालयों, कॉलेजों, विश्वविद्यालयों की शिक्षा पर प्रतिकूल प्रभाव पड़ा है।

21वीं सदी के दूसरे दशक में पठन-पाठन का समूचा परिदृश्य बदल चुका है। आज की शिक्षा नवयुगीन साधनों तथा युक्तियों से सुसज्जित होती जा रही है। साधारण ब्लैक बोर्ड की जगह स्मार्ट बोर्ड ने ले ली है। चॉक के स्थान पर मार्कर पने का उपयोग हो रहा है। स्लाइड, एल.सी.डी, प्रोजेक्टर, कम्प्यूटर अब प्रत्येक कक्षा की अनिवार्य आवश्यकता बनते जा रहे हैं। शिक्षा प्रणाली के तौर-तरीकों में तेजी से बदलाव हो रहा है तथा कोविड-19 के बाद से यह गति और भी तीव्र होती जा रही है।

2. कोविड-19 महामारी का परिचय व विवरण –

कोविड-19 महामारी को 'विश्व स्वास्थ्य संगठन' द्वारा महामारी घोषित किया गया है। यह एक वायरस के द्वारा जनित संक्रमण है जो एक व्यक्ति से दूसरे व्यक्ति में बहुत तीव्रता से फैलता है। यह वायरस दिसम्बर, 2019 में सबसे पहले चीन में सामने आया था तब से यह बड़ी तेजी से दूसरे देशों में भी पहुंच गया। भारत में इसकी पुष्टि मार्च, 2020 में हुई।

लक्षण –

यह स्रक् मण सामान्य सर्दी-जुकाम या निमोनिया जैसा होता है। इस वायरस के स्रक् मण के बाद बुखार, जुकाम, सांस लेने में तकलीफ, नाक बहना, गले में खराश जैसी समस्याएँ होती हैं।

बचाव के उपाय –

बचाव के लिए निम्नलिखित उपाय सुझाये गये हैं –

- सोशल डिस्टेंसिंग बनाए रखना
- हाथों को बार-बार साबुन से धोना
- सफाई का पूरा ध्यान रखना
- मास्क का उपयोग करना
- सैनिटाइजर का उपयोग करना

- भीड़-भाड़ वाली जगहों पर न जाना
- हाथ मिलाने की जगह दूर से ही नमस्ते करना
- आँख व चेहरे को बार-बार नहीं छूना
- छींकते व खांसते समय नाक व मुँह को रुमाल से ढकना
- गुनगुना पानी पीना
- अपना इम्यून सिस्टम मजबूत बनाना
- डाइट में पौष्टिक चीजों को शामिल करना
- दिन में एक बार हल्दी दूध का सेवन करना
- अपने शरीर के तापमान और श्वसन लक्षणों की नियमित रूप से जांच करना कोरोना वायरस से बचने के लिए हम सबकी जिम्मेदारी बनती है कि हम नियमों का का कड़ाई से पालन करें ताकि देश को रोग मुक्त कर सकें।

3. लॉकडाउन की स्थिति में बच्चों की पढ़ाई-लिखाई –

परिवर्तन प्रकृति का नियम है और कोरोना महामारी भी यही परिवर्तन लेकर आया है। इसकी वजह से लोग शारीरिक दूरी बनाकर अपने-अपने घरों में रहकर बच्चों की ऑनलाइन पढ़ाई करवाने के लिए विवश हो गए। इस तकनीक ने शिक्षण कार्य को आसान कर दिया क्योंकि बच्चों को शिक्षा से अधिक दिनों तक दूर नहीं किया जा सकता है। इसी बात को ध्यान में रखते हुए सभी विद्यालयों ने ऑनलाइन शिक्षा के माध्यम से बच्चों को पढ़ाना शुरू किया। ऑनलाइन शिक्षा का माध्यम काफी हद तक सफल भी रहा है। कुल मिलाकर ऑनलाइन शिक्षा के माध्यम से लॉकडाउन में भी बच्चों की पढ़ाई का होने वाला नुकसान बचाया गया।

4. लॉकडाउन के कारण बच्चों पर होने वाले प्रभाव –

कोविड-19 महामारी के कारण सामाजिक आवागमन और सामाजिक कार्यकलापों पर लगे प्रतिबंध एवं घर में अनुकूल माहौल बनाने के लिए वयस्कों पर पूर्ण निर्भरता के कारण बच्चों का मानसिक स्वास्थ्य प्रभावित हुआ है। बच्चों पर होने वाले प्रमुख प्रभाव निम्नलिखित हैं:-

बच्चों में तनाव, अवसाद, दुश्चिंता –

अधिकांश विद्यार्थी लॉकडाउन की अवधि के दौरान चिंता और तनाव का सामना कर रहे हैं। विद्यार्थी अपने शैक्षणिक प्रभावों के बारे में चिंतित हैं। सरकारों व शिक्षण संस्थानों के विभिन्न प्रयासों के बावजूद विद्यार्थी और माता-पिता भविष्य को लेकर आश्वस्त नहीं हो पा रहे हैं।

पढ़ने के लिए प्रेरित करते रहने की आवश्यकता –

लॉकडाउन की स्थिति में बच्चों के लिए अकेले बैठकर पढ़ना नीरस हो गया है। बच्चे हमेशा अपने शिक्षक और सहपाठियों से प्रेरित होते हैं। बच्चे व्यस्त हो गए परन्तु माता-पिता व अभिभावकों के समक्ष उन्हें पढ़ने को रुचिकर बनाने की प्रेरणा देना एक मुश्किल कार्य बन गया।

माता-पिता की दुविधा –

बच्चों की ऑनलाइन पढ़ाई में मदद करने में वे माता-पिता ही सक्षम हैं जो स्वयं शिक्षित हैं परन्तु अशिक्षित या कम पढ़े-लिखे बहुत से अभिभावक ऐसे हैं जिनके समक्ष अपने बच्चों की मदद करना एक चुनौती से कम नहीं है।

पढ़ाई-लिखाई के अतिरिक्त अन्य कार्यों के लिए अवसर –

जिस प्रकार विद्यालय में सह-संज्ञानात्मक गतिविधियाँ होती हैं, वैसे ही घर पर भी बहुत सारी गतिविधियों के लिए अवसर निकाले जा सकते हैं। घर के कार्यों में सहभागिता प्रदान करने से बच्चों में विशेष कौशल विकसित होने के साथ कार्य के प्रति सम्मान की भावना भी जागृत होती है।

विद्यालय के लिए अभिलाषी बच्चे –

लॉकडाउन व अव्यवस्थित जीवनशैली के कारण बच्चे विद्यालय को बहुत याद करते हैं। विद्यार्थी अपने मित्रों, स्कूल की घटनाओं व क्रिया-कलापों को बहुत याद करते हैं।

शारीरिक परिवर्तन –

लगातार एक जगह बने रहना बच्चों के लिए असहजता की स्थिति उत्पन्न करता है। बच्चों के कुछ विशेष व्यवहार लॉकडाउन की स्थिति में देखने को मिल रहे हैं जैसे – मोटापा, चिड़चिड़ापन, झुंझलाहट, जिद, बात न मानना आदि।

लम्बे समय तक स्क्रीन का उपयोग –

ऑनलाइन शिक्षण में बहुत सारा गृहकार्य देकर बच्चों को व्यस्त रखने का उपक्रम चल रहा है जिससे पढ़ाई के अलावा गृहकार्य के लिए भी बच्चों को स्क्रीन पर रहना पड़ता है। ऐसे में बच्चों का तनावग्रस्त होना, दुश्चिंता बढ़ाना, अवसादग्रस्त होना, आँखों की समस्या होना स्वाभाविक ही है।

बच्चों का डिजिटल दुनिया की ओर आकर्षण –

ऑनलाइन शिक्षा में व्यस्त रहने की आवश्यकता अब बच्चों की एक दैनिक आदत बन गई है। स्क्रीन व इंटरनेट ने उनके हर कार्य को सरल बना दिया है जिसके कारण बच्चों में किताब पढ़ने व लिखावट संबंधी कार्यों में अरुचि उत्पन्न होने लगी है। उनका आकर्षण मोबाइल, कम्प्यूटर, लैपटॉप अन्य संचार साधनों की ओर बढ़ता जा रहा है।

5. लॉकडाउन के कारण शिक्षकों पर प्रभाव –

लॉकडाउन के कारण शिक्षकों पर निम्न प्रभाव पड़े हैं :-

विद्यार्थियों के सीखने का भय –

ऑनलाइन शिक्षण के दौरान शिक्षक अपने छात्रों से दूर रहता है। वह केवल उन्हें स्क्रीन पर देख सकता है परन्तु स्क्रीन के पीछे विद्यार्थी क्या कर रहे हैं, कितना सीखते हैं, इस बात को लेकर सभी शिक्षक विद्यार्थियों के सीखने के स्तर को लेकर भयभीत हैं। शिक्षकों को विद्यार्थियों से अपेक्षित समर्थन प्राप्त नहीं हो पाता है।

अनिश्चितता की स्थिति –

लॉकडाउन के अप्रत्याशित दौर की स्थिति के बारे में शिक्षक पूर्ण रूप से अंजान हैं। सबकुछ इनता जल्दी और तेजी से हुआ कि उन्हें पाठ्यक्रम की कमी, पाठ्यक्रम में बदलाव, आवश्यक अधिगम प्रतिफलों आदि के बारे में समझने का अवसर ही नहीं मिला। ऑनलाइन शिक्षण कितने दिन चलेगा, यह अनिश्चितता की स्थिति शिक्षकों के लिए कष्टपूर्ण ही थी।

तकनीकी ज्ञान सीखने की आवश्यकता –

ऑनलाइन शिक्षण की समस्याओं में पाया गया कि ऑनलाइन कक्षाएँ लेना शिक्षकों के लिए सुविधाजनक नहीं था। अनुभवी शिक्षकों को भी उपकरण और प्रौद्योगिकी का ज्ञान आवश्यक हो गया। इस तकनीक में जो शिक्षण सामग्री उपयोग में लेनी चाहिए, उसका वास्तव में उपयोग हो नहीं हो पाता। शिक्षकों का ध्यान उपकरण सच चलाने में अधिक रहता है।

ऑनलाइन कक्षा –

ऑनलाइन कक्षा के सफल और निर्बाध सच चलाने के लिए तीव्र गति वाला इंटरनेट आवश्यक है, साथ ही नई टेक्नोलॉजी वाले मोबाइल और कम्प्यूटर की भी आवश्यकता रहती है। शिक्षकों को विभिन्न तकनीकी ऑनलाइन प्लेटफॉर्म जैसे – गूगल मीट, गूगल

क्लासरूम, जीमेल, व्हाट्सअप, जूम इत्यादि का उपयोग करने के अनुक्रम के बारे में योजना बनानी होती है जो काफी समय खर्च करती है।

बच्चों की शिक्षा के प्रति उदासीनता –

ऑनलाइन कक्षा के दौरान शिक्षकों व विद्यार्थियों का आपस में सीधे सम्पर्क नहीं होने के कारण शिक्षक एक तरफ से ही अपना व्याख्यान देते रहते हैं। अन्य सभी को अपना उपकरण म्यूट मोड पर रखना होता है। इस तरीके से अधिक देर तक पढ़ने-पढ़ाने से बच्चों में पढ़ाई के प्रति अरुचि और उदासीनता उत्पन्न होने लगती है और कई बच्चे तो कक्षा के बीच में ही कक्षा छोड़ देते हैं।

मूल्यांकन में समस्या –

ऑनलाइन माध्यम में मूल्यांकन करना एक जटिल कार्य हो गया है। फोने पर जांच का कार्य आसान नहीं है। इस स्थिति में विद्यार्थियों को छोटे असाइनमेंट और वर्कशीट का कार्य दिया जा सकता है परन्तु इसमें भी सुधार एवं मूल्यांकन करने में काफी परेशानी होती है। डर के अभाव में अनेक विद्यार्थी कार्य समय पर पूरा ही नहीं करते हैं। जिसका परिणाम उनके अधिगम पर पड़ता है।

6. ऑनलाइन शिक्षा की विशेषताएँ, उसके दुष्परिणाम एवं चुनौतियाँ –

ऑनलाइन शिक्षा की विशेषताएँ –

- इसमें विद्यार्थी व शिक्षक अपनी सुविधानुसार कहीं से भी कक्षा का संचालन कर सकते हैं।
- यात्रा व समय की बचत होती है।
- विद्यार्थी ऑनलाइन कक्षा में दिए गए व्याख्यान को रिकॉर्ड कर सकते हैं जिसे पुनः देखा-सुना जा सकता है।
- ऑनलाइन अध्ययन करने वाले विद्यार्थी विभिन्न विशेषज्ञों से विस्तृत ज्ञान प्राप्त कर सकते हैं।
- 21वीं सदी में विद्यार्थियों के अनुशासन, पेशे या करियर में आवश्यक डिजिटल साक्षरता कौशल की मौजूदगी को सुनिश्चित करने के लिए ई-शिक्षा इंटरनेट और कम्प्यूटर कौशल का ज्ञान विकसित करती है।
- छोटे शहरों में जहाँ लड़कियों को पढ़ने के लिए बाहर नहीं भेजा जाता, उनके लिए ई-शिक्षा किसी वरदान से कम नहीं है।
- भारत सरकार द्वारा शिक्षा के डिजिटल प्लेटफॉर्मों तक विद्यार्थियों की पहुंच बढ़ाने के लिए ई-शिक्षा का योगदान है।

ऑनलाइन शिक्षा के दुष्परिणाम –

- लगातार स्क्रीन देखने से बच्चों को दृष्टि संबंधी समस्याएँ बढ़ गई हैं। नजर कमजोर होना, सिरदर्द, आँखों से पानी आना आदि समस्याएँ बढ़ने लगी हैं। बच्चों में कम उम्र में अवसाद, निराशा, दुश्चिंता बढ़ने लगी है।
- बच्चों में आम दैनिक व्यवहार में बदलाव आने लगा है। जैसे – चिड़चिड़ापन, झुंझलाहट, जिद आदि।
- लगातार बैठे रहने के कारण बच्चों में शारीरिक गतिविधियाँ कम होने से मोटापे की समस्या अधिक देखने को मिलती है।
- सीधे सम्पर्क न होने के कारण शिक्षक-विद्यार्थियों के संबंध में असहजता की स्थिति उत्पन्न हो गई है।
- असंतोषजनक मूल्यांकन होने से विद्यार्थियों के अधिगम स्तर में गिरावट हुई है।
- छोटे बच्चों के लिए माता-पिता या अभिभावकों के ध्यान दिए बिना ऑनलाइन शिक्षण संभव नहीं है।
- एक स्थान पर कई घंटे अकेले बैठकर पढ़ने से बच्चों में शिक्षा के प्रति अरुचि व उदासीनता उत्पन्न होती है जिसके कारण उनमें कर्टून देखने,

गेम खेलने जैसी लत लग जाती है।

ऑनलाइन शिक्षा की चुनौतियाँ –

- ऑनलाइन शिक्षा की राह में आधी-अधूरी तैयारी व ऑनलाइन कोर्स उपलब्ध करना बड़ी चुनौती है।
- विद्यालय स्तर को विश्वविद्यालय स्तर तक ऑनलाइन शिक्षण के लिए आवश्यक संसाधनों की उपलब्धता नगण्य है।
- ऑनलाइन शिक्षण के लिए अध्यापकों को आवश्यक प्रशिक्षण प्रदान करना एक चुनौती है।
- देश में केवल 24 प्रतिशत घरों में ही इंटरनेट की सुविधा उपलब्ध है। ऐसे में ग्रामीण व अन्य क्षेत्रों में ई-शिक्षा व्यवहारिक नहीं है।
- सभी अभिभावक अपने हर बच्चे को स्मार्टफोन या लैपटॉप दिलाने में असमर्थ हैं जिससे कई बच्चे संसाधनों के अभाव में ऑनलाइन शिक्षा प्राप्त नहीं कर पाते।
- इंटरनेट की कनेक्टिविटी तथा अपर्याप्त डेटा प्लान के कारण भी ऑनलाइन शिक्षा में बाधा आती है।
- ऑनलाइन पढ़ाई के दौरान अभिभावकों पर अतिरिक्त जिम्मेदारी आ जाती है कि वे बच्चों पर मॉनिटरिंग करें व उन्हें मदद करें।
- आत्म-अनुशासन या अभिभावकों के असहयोग की स्थिति में ऑनलाइन पढ़ाई में बच्चे पिछड़ सकते हैं।
- तकनीकी की कम समझ ऑनलाइन शिक्षा की एक बड़ी चुनौती है।
- अधिक समय तक बिजली की अनुपलब्धता भी एक चुनौती है।
- वर्चुअल कक्षा-कक्ष, लैब प्रेक्टिकल वर्क करना संभव नहीं है।
- शिक्षण के दौरान विद्यार्थियों द्वारा अध्यापकों के साथ व्हाट्सअप पर अनावश्यक बातें करना, अभद्र भाषा का प्रयोग जैसी स्थितियाँ भी देखने की मिलती हैं।

7. ऑनलाइन शिक्षा के लिए समाधान व सुझाव –

वर्तमान में उपलब्ध संसाधनों से ऑनलाइन शिक्षा को बहे तर बनाने के लिए नीतिगत स्तर पर सकारात्मक प्रयास किए जा रहे हैं। निःसंदेह अच्छी पहल है परन्तु प्रभावी परिणाम के लिए बेहतर तैयारी आवश्यक है। इसके लिए इस दिशा में कुछ कदम उठाए जा सकते हैं। जैसे –

- स्कूल से लेकर विश्वविद्यालयों तक ऑनलाइन शिक्षण के लिए पर्याप्त संसाधनों की उपलब्धता और उनका प्रयोग सुनिश्चित किया जाना।
- सभी अध्यापकों को ऑनलाइन शिक्षण कराने का गहन प्रशिक्षण प्रदान करना जिससे अध्यापक कुशलतापूर्वक शिक्षण कार्य कर सकें।
- ऑनलाइन शिक्षा हेतु पाठ्यक्रम का निर्माण, तदनुरूप पाठ्य सामग्री तैयार करना।

- शिक्षकों द्वारा अपने व्याख्यान को छोटे और मजेदार कार्यक्रम की तरह प्रस्तुत करना जिसे बच्चे आसानी से समझ सकें।
- जिन गरीब विद्यार्थियों के पास शैक्षिक संसाधनों की कमी है, उनके लिए एज्युकेशनल किट की व्यवस्था करना।
- अभिभावकों को भी बच्चों की गतिविधियों के प्रति सजग रहना होगा।

8. ऑनलाइन शिक्षा का भविष्य –

कोविड-19 संकट ने मानव जीवन के अन्य पक्षों के साथ-साथ शिक्षा में भी आवश्यकतानुसार संशोधन करने के लिए विचार करने के लिए बाध्य किया है। इसे ध्यान में रखते हुए ऑनलाइन शिक्षा पर पूरे देश में मंथन प्रारंभ हो गया है।

ऑनलाइन पढ़ाकर बच्चों को बौद्धिक रूप से सक्रिय नहीं बनाया जा सकता है, उनके लिए विद्यालय अनिवार्य है। विद्यालय में बच्चों का सर्वांगीण विकास होता है। कोरोना संकट के दौरान वैकल्पिक तौर पर ऑनलाइन शिक्षा अवश्य ही एक जरूरत है लेकिन सामान्य दिनों में परम्परागत कक्षीय शिक्षा ही आवश्यक है। ऑनलाइन शिक्षा कक्षा-कक्ष शिक्षण के सहायक के रूप में ही सर्वाधिक उपयोगी सिद्ध होगी।

9. उपसंहार –

वर्तमान परिस्थितियों ने ऑनलाइन शिक्षा को ज्ञान प्राप्ति का माध्यम बना दिया है। यह नवोन्मेषी, समय, संसाधन, धन की बचत करने वाला माध्यम है। किताबों को डिजिटलाइज किया जा रहा है। वबे साइट, वीडियो, ऑडियो आदि माध्यमों से विषय वस्तु का डिजिटलीकरण करके सभी बच्चों तक शिक्षा की पहुंच सुनिश्चित की जा रही है। लेकिन शिक्षा से जुड़ी सभी इकाईयों के पास उपयुक्त संसाधनों की अनुपलब्धता के कारण तकनीकी क्षेत्रों में आज भी हम पिछड़े हुए हैं। ई-कक्षा के सहज सचं जलन के तरीके भारत जैसे देश में संभव नहीं है।

REFERENCES

1. इलके ट्रॉनिक शिक्षा – विशेषताएँ और चुनौतियाँ
www.drishtias.com/hindi/daily-news-editorials/limitations-of-online-learning
2. जॉन माया (2020) – ऑनलाइन शिक्षण में बहे तर भविष्य; जनसत्ता, लखनऊ
3. कुमार निरंजन (2020) – ऑनलाइन शिक्षा और चुनौतियाँ; दैनिक जागरण, प्रयागराज।
4. द हिन्दु मैगजीन (9 अगस्त 2020) – एज्युकेशन क्राइसिस; संयुक्त राष्ट्र संघ, लखनऊ, पृ.सं. 1
5. वाडिया, लीना चन्द्रन (2020) – कोविड-19 के दौर में ऑनलाइन शिक्षा की जरूरत
https://www.orfoline.org/hindi/research/the_need_and_challenges_of_online_education_in_Covid-19_era



वैश्वीकरण की प्रक्रिया एवं पर्यटन उद्योग पर प्रभाव

नारायण कुमार

सहायक आचार्य, राजकीय महाविद्यालय, सांचौर, जालौर

ABSTRACT:

वर्तमान समय में सामाजिक संबंध जो पहले गांव या अधिक से अधिक अपने अंचल तक सीमित थे, अब दुनिया भर के साथ जुड़ गए। इस बदलती हुई दुनिया में समय और स्थान अप्रसंगिक हो गए हैं। देखते ही देखते सात समुद्र पार करके व्यक्ति यूरोप की यात्रा करने पहुँच जाता है। दुनिया के किसी भी कोने से बातचीत कर सकता है। वैश्वीकरण को एंथेनी गिडिन्स दुनिया भर के लोगों के साथ संबंध का तीव्रकरण कहते हैं। स्थानीय संबंधों में भी हजारों मील दूर रहने वाले लोगों का प्रभाव पड़ता है। वैश्वीकरण इस दृष्टि से आधुनिकता से जुड़ा हुआ है। आधुनिकता का फैलाव वैश्वीकरण के कारण होता है। इसको व्याख्या एंथेनी गिडिन्स (2002) ने इन शब्दों में की है—“दुनिया भर के लोगों, क्षेत्रों और देशों के बीच में सामाजिक और आर्थिक संबंधों की जो अन्यान्याश्रितता है, वही वैश्वीकरण है।” वैश्वीकरण का पर्यटन पर जितना प्रभाव पड़ रहा है शायद ही किसी उद्योग पर इसका प्रभाव हो रहा होगा।

KEYWORDS:

पर्यटन, उद्योग, वैश्वीकरण, सांस्कृतिक, सैद्धान्तिक, एकीकरण।

यदि हम आधुनिक समाज को और हमारे स्वयं के प्रतिदिन के काम करने की दशाओं को देखें तो ज्ञात होगा कि हम सारी दुनिया के साथ जुड़े हुए हैं। वैश्वीकरण एक शक्तिशाली प्रक्रिया है और इसके अभाव में हम आधुनिकता को नहीं समझ सकते हैं। वैश्वीकरण कोई रातों-रात दुनिया में आ गया हो ऐसा नहीं है। इसकी विकास की अवस्थाएँ रही हैं। अपनी पहली अवस्था में वैश्वीकरण ने दुनिया में एक भौतिक एकता को स्थापित कर दिया और आज की अवस्था में संपूर्ण दुनिया को एक व्यवस्था के रूप में बदल दिया है। इसका यह अर्थ नहीं समझा जाना चाहिए कि संपूर्ण में एक ही संस्कृति हो गई या सांस्कृतिक सजातीयता स्थापित हो गई हो और न ही ऐसा हुआ है कि दुनिया भर में कोई राजनीतिक एकीकरण हो गया हो। यह सब नहीं हुआ है, हुआ यह है कि वैश्वीकरण ने ऐसी स्थितियाँ पैदा कर दी हैं जिनमें अब लोगों में चेतना आ गई है कि उनके लिए अन्तःक्रियाएँ और सामाजिक संबंध संसार भर के साथ खुले हैं। अब लोग समाज की कई परिभाषा करने लगे हैं। यह सोचा जा रहा है कि एक वैश्वीय समाज की कल्पना की जा सकती है।

आज वैश्वीकरण को देखे तो पाएँ कि इसने हमारे समक्ष स्थानीय वैश्विक बाजार निर्मित कर दिए हैं इन बाजारों में हमें डेनमार्क के सेब दिखाई देंगे, इजराइल के अंगूर मिल जाएँगे और दुनियाभर के कॉस्मेटिक सामान पर्याप्त मात्रा में बिक्री के लिए हमें मिल जाएगा। सुपर बाजार या गांव की सहकारी समिति इस बात को बताते हैं कि सामाजिक परिवर्तन की प्रक्रिया आज दुनिया भर में बहुत तेज हो गई है दूसरे देशों के लोग, एक ऐसी जटिल आर्थिक व्यवस्था में बंध गए हैं कि इन्हें अलग करके समझा ही नहीं जा सकता। बाजार में हमारे देश के विभिन्न बाजारों और अंचलों की वस्तुएँ भी पर्याप्त मात्रा में बिक्री के लिए अटी पड़ी हैं। ये सभी वस्तुएँ संस्कृति की भी हैं, कला की भी हैं और दिन प्रतिदिन काम में आने वाली भी हैं। देखा जाए तो आज की दुनिया अन्यान्याश्रितता की है।

यह सब पिछले दो दशकों में ही हुआ है और इसका एक कारण संचार साधनों में वृद्धि, सूचना तकनीक और आवागमन के साधन हैं। सेटलाइट संचार व्यवस्था का विकास इतनी तीव्र गति से हुआ है कि दुनिया के लोग एक-दूसरे के साथ आराम से संपर्क कर सकते हैं। इन सब प्रक्रियाओं को जो दुनिया भर के सामाजिक संबंधों को गहरा और घनिष्ठ कर रहे हैं, इन प्रक्रियाओं को अवधारणात्मक रूप में समाजशास्त्री वैश्वीकरण कहते हैं।

वैश्वीकरण एक ऐसा पहलू जो संपूर्ण विश्व को एक ग्राम के परिप्रेक्ष्य में देखता है जहाँ आर्थिक से लेकर सामाजिक हर पहलू तक विश्व के समस्त देश एक दूसरे को मिला-जुला पाते हैं परंतु समकालीन परिप्रेक्ष्य में तकनीकी के आविष्कार एवं प्रतिस्पर्धा ने मनुष्य को इतना व्यस्त कर दिया है कि व्यक्ति स्वयं के लिए एवं परिवार के लिए समय नहीं निकाल पा रहा है। अतः व्यक्ति आज अपनी अस्मिता ढूँढ रहा है। उसके सामने वैधता का संकट उभर कर आया है। मानव इतना भौतिकवादी हो गया है कि परिवार के लिए अवकाश नहीं है जिसकी अभिव्यक्ति आज हम टूटते परिवारों में देख सकते हैं। अतः सामाजिक ताने-बाने को सहेजने की जरूरत महसूस हुई है।

वर्तमान में पर्यटन के नए-नए आयाम उभर कर सामने आए हैं। भारत के परिप्रेक्ष्य से देखा जाए तो निश्चित रूप से हम कह सकते हैं कि इस क्षेत्र में अपार संभावनाएँ हैं। पर्यटन को आज संस्कृति के साथ जोड़कर देखा जाता है। अतः हमारी संस्कृति को नए रूप से पेश करने की कोशिश हो रही है परंतु साथ ही ध्यान रखना होगा कि संस्कृति अक्षुण्ण बनी रहे और वर्तमान प्रतिस्पर्धा में और निखर कर सामने आए।

पश्चिमी संस्कृति का प्रभाव हम निश्चित रूप से हमारी संस्कृति पर हावी होते देख सकते हैं जो हमें खान-पान, वेशभूषा, भाषा आदि में स्पष्ट दिखाता है, परंतु ध्यान रखना होगा कि जो पर्यटक विदेशों से आते हैं उनकी संस्कृति के सकारात्मक पहलुओं को हम ग्रहण करे नहीं तो लिव-इन-रिलेशनशिप, रेव पार्टियाँ आदि न जाने कितने ही मुद्दे हमारी संस्कृति में आत्मसात् होने को आतुर हो जाएँगे, जो समकालीन परिप्रेक्ष्य में हमें दृष्टिगोचर होता है।

अतः वैश्वीकरण ने जहाँ प्रतिस्पर्धा बढ़ाकर मनुष्य को व्यस्त कर दिया है तथा जिस प्रकार से पर्यटन के नए आयाम सामने आए हैं उसके सकारात्मक पहलुओं के साथ-साथ नकारात्मक पहलुओं पर भी हमें ध्यान देना होगा। पर्यटन उद्योग जहाँ एक तरफ सरकारी कोष में विदेशी धन बढ़ाता है वहीं दूसरी ओर इसी पर्यटन से एड्स जैसी बीमारियों को फैलने का विस्तृत क्षेत्र भी उपलब्ध करवाता है। यूरोपीयन कमीशन की परिभाषा-यूरोपीयन कमीशन ने वैश्वीकरण को अनिवार्य रूप से एक प्रक्रिया स्वीकारा है। वह कहता है कि इस प्रक्रिया में सामाजिक और सांस्कृतिक पहलू भी होते हैं पर मूल रूप से यह अपने विमर्श में आर्थिक है। कमीशन के शब्दों में—“यह एक ऐसी प्रक्रिया है जिसके द्वारा विभिन्न देशों के बाजार और उत्पादन पारस्परिक रूप से एक दूसरे पर अधिक निर्भर रहते हैं और इस निर्भरता का कारण व्यापार तथा वस्तुओं की गतिशीलता और पूंजी तथा तकनीकी तंत्र का प्रवाहित होना है।”

वैश्वीकरण और इसके मुख्य लक्षण

समाजशास्त्रियों ने वैश्वीकरण के कतिपय मुख्य लक्षणों की पहचान की है। इसके कई कारण हैं: समय और स्थान का सिकुड़ना, राजनीति और शक्ति सम्बन्ध, तथा आर्थिक आदान-प्रदान। पिछले पृष्ठों में हमने कई परिभाषाओं का उल्लेख किया है जो वस्तुतः वैश्वीकरण के लक्षणों को बताती हैं। मेलकॉम वाटर्स (2000) वैश्वीकरण के दो मुख्य लक्षणों की चर्चा करते हैं : आर्थिक और सामाजिक-सांस्कृतिक। ये दो लक्षण अपने विस्तार में इतने भारी हैं कि सम्पूर्ण संसार को एक व्यवस्था के रूप में स्थापित करने का प्रयास करते हैं। यहाँ हम इन लक्षणों का सिलसिले से विवरण देंगे।

दुनिया एक शापिंग कॉम्प्लेक्स (आर्थिक वैश्वीकरण)–

बहुत पहले कार्ल मार्क्स ने कहा था कि कामगारों का कोई देश नहीं होता। मार्क्स का प्रबन्ध बहुत सामान्य था। उनका कहना था कि पूंजीवाद प्रत्येक स्थिति में अपना विस्तार करना चाहता है और आवागमन तथा संचार सुविधाओं के विस्तार के साथ प्रत्येक युग में पूंजीवाद अपना विस्तार करेगा। निश्चित रूप से पूंजीवाद आर्थिक वैश्वीकरण का एक सशक्त साधन है। यह पूंजीवाद ही है जो वित्तीय बाजारों, वस्तुओं, श्रमिकों और विनियम सस्थाओं को स्थापित करता है। यह मार्क्स का ही बुनियादी सिद्धान्त था कि दुनिया भर के मजदूर संगठित होकर श्रमिकों की एकता को स्थापित करेंगे। इस दृष्टि से आर्थिक वैश्वीकरण की बुनियाद मार्क्स के सिद्धान्त में ही देखी जा सकती है।

यह बहुत स्पष्ट है कि जब हम आर्थिक वैश्वीकरण की व्याख्या करते हैं तो अनिवार्य रूप से हमारी चर्चा का केन्द्र पूंजीवाद होता है। जब समाजशास्त्री इस सम्पूर्ण समस्या को उठाते हैं जो वे आधुनिकता का उल्लेख अवश्य करते हैं। एक स्थान पर एंथेनी गिडिन्स ने कहा है कि वैश्वीकरण वस्तुतः आधुनिकता की उपज है। आधुनिकता में पूंजीवाद, राज्य की शक्ति, प्रजातंत्र तथा सैनिक शक्ति होते हैं। इस तरह की आधुनिकता संकट को भी प्रदान करती है। आधुनिकता और पूंजीवाद का विस्तार

तकनीकी तंत्र की क्रांति द्वारा सम्भव हुआ है।

सामाजिक-सांस्कृतिक वैश्वीकरण-

वैश्वीकरण के आर्थिक पहलू की अपेक्षा इसके सामाजिक-सांस्कृतिक पहलू अधिक जटिल और पेचीदा हैं। यह इसलिए कि इसके अन्तर्गत हम लगभग सम्पूर्ण मानव-जीवन को सम्मिलित करते हैं। समाज वैज्ञानिकों के परिवार में, सबसे पहिले समाजशास्त्रियों ने वैश्वीकरण की व्याख्या एक नये-तुले रूप में करने का प्रयास किया। इन समाज वैज्ञानिकों में समाजशास्त्री अग्रणी हैं। समाजशास्त्रियों में गिडेन्स, रोबर्टसन और मेलकॉन चोटी के विश्लेषक हैं, जिन्होंने वैश्वीकरण को इसकी प्रारम्भिक अवस्था में ही परिभाषित किया। यह परिभाषा गैर-आर्थिक पहलुओं की थी, यानी समाज-शास्त्रीय थी। एंथेनी गिडेन्स ने कहा कि वैश्वीकरण एक प्रकार से दुनिया भर के लोगों का सामाजिक सम्बन्धों का एक ताना बाना है। दूर-दराज क्षेत्रों में रहने वाले लोगों के व्यवहार पर दुनिया भर का प्रभाव देखने को मिलता है। रोबर्टसन (2000) जहां यह कहते हैं कि वैश्वीकरण में समय और स्थान सिमट गये हैं वहीं वे कहते हैं कि अब दुनिया भर के लोगों में यह चेतना आ गई है कि वे एक विशाल संसार के भागीदार हैं। यह व्यक्तिनिष्ठ चेतना वैश्वीकरण की बहुत बड़ी उपलब्धि है। रोबर्टसन कहते हैं-"एक प्रक्रिया के रूप में वैश्वीकरण की अवधारणा का सम्बन्ध संसार का सिमट जाना है और यह दुनिया एक है इसकी चेतना का गहरा जाना है। वैश्वीकरण अपने आपमें सम्पूर्ण विश्व की चेतना है।"

सांस्कृतिक वैश्वीकरण-नई दुर्व्यवस्था-

आर्थिक और राजनीतिक वैश्वीकरण की अपेक्षा सांस्कृतिक वैश्वीकरण अधिक हुआ है। आधुनिक काल के आने से पहले धर्म का वैश्वीकरण सबसे अधिक था। बौद्ध, कन्फ्यूशियस, ईसाई और हिन्दू धर्म विश्व धर्मों की श्रेणी में आते थे। ये धर्म विश्व व्यापी थे, इनका कोई अपना देश नहीं था। बौद्ध धर्म का उद्गम भारत था, लेकिन इसकी व्यापकता एशिया के कई देशों में थी। इस्लाम मध्य और पूर्वी एशिया के बाहर अफ्रीका तक में था। कमोबेश यही स्थिति ईसाई धर्म की थी। जब आधुनिक युग आया तब प्रजातंत्र और पूंजीवाद भी आये। बुद्धि संगतता, शिक्षा और विज्ञान ने धर्म के वैश्वीकरण को हाथिये पर ला दिया। अब इस युग में धर्म राज्य से पृथक हो गया।

आर्थिक वैश्वीकरण के परिणामस्वरूप दुनिया में एक सांस्कृतिक और सामाजिक क्रांति आई है। अमेरिका का एक सफेद पोश इससे इतना ही प्रभावित हुआ है जितना मास्को और टोकियो का एक कार्यकारी। इसका मतलब हुआ है कि जो कुछ हम अमेरिका के लिये करते हैं, वह अमेरिका से बाहर भी वैध है। हमारी खबरें वस्तुतः विश्व की खबरें हैं।

नवीन वैश्वीय सांस्कृतिक निगम-

सांस्कृतिक बाजार में वस्तुओं को कौन पहुंचाता है। जेमेसन (1987) ने तर्क दिया है कि यह सब काम पूंजीवाद करता है। पूंजीवाद अपने विस्तार के लिये सब कुछ कर सकता है। आज की संस्कृति की उपज पूंजीवाद करता है। इसके उत्पादन के लिये बड़े-बड़े निगम होते हैं। संस्कृति उत्पादन का कार्य बड़ा जटिल है। दुनिया में संस्कृति के जो विभिन्न प्रतिमान हैं। उन्हें ये निगम नजर अन्दाज नहीं कर सकते। अगर मेकडानल्ड अमेरिका में अपने मेन्यू में मेमने के कोपते सम्मिलित करता है, तो ऐसा वह भारत के अहमदाबाद में नहीं कर सकता। यहां तो उसे शाकाहारी कोपते की देने पड़ेगे। सांस्कृतिक निगम स्थानीय अन्तर को कटार-ब्यौत करके अपने परिवेश में बैठा लेते हैं। थियोडोर लेविट ने सांस्कृतिक निगमों की इस अनुकूलता की प्रकृति का विवरण दिया है। इसे वे एथनिसिटी का वैश्वीकरण कहते हैं। इसका बहुत अच्छा दृष्टान्त विभिन्न देशों में एथनिक बाजारों का चल निकलना है। यह वैश्वीय स्टेन्डर्डिजेशन है। हमारे यहां महानगरों की होटलों में चीनी खाना या इटालियन खाना मिलना सामान्य बात है। लंदन में पकोड खमण या दाल-बाटी की दुकानें पाना सहज नहीं है। थियोडोर लेविट (2000) लिखते हैं-सभी जगज चीनी खाना, पिज्जा ब्रेड, ग्रामीण या स्थानीय और पश्चिमी संगीत, पिजा और जूस मिलना सामान्य बात है। इस तरह का एथनिक खाना वैश्वीकरण की भाषा में विशिष्ट खाना कहा जाता है और वैश्वीकरण कभी भी यह अर्थ नहीं है कि इसके खण्डिता नहीं होती। इसके विपरीत, वैश्वीकरण का मतलब होता है स्थानीय सांस्कृतिक पदार्थों को दुनिया भर में पहुंचाना।

वैश्वीकरण-स्थानीय सम्बन्ध-

वैश्वीय संस्कृति सामान्यतया पश्चिमी संस्कृति है। आधुनिकीकरण ने दुनिया भर की संस्कृतियों को मिश्रित करने का प्रयास किया है फिर भी इस मिश्रण में पश्चिमी और अमेरिकी संस्कृतियों की प्रधानता होती है। ऐसी अवस्था में जब यह वैश्वीय संस्कृति स्थानीय संस्कृति के सम्पर्क में आती है तब वैश्वीय संस्कृति को वैधता पाने के स्थानीय संस्कृति के साथ अनुकूलन अवश्य करना पड़ता है। इस्लाम के उम्मा को कभी भी नजरअन्दाज नहीं किया जा सकता है। किसी पंडित की उपेक्षा नहीं की जाती। जब मानव अधिकार की बात उठती है तब स्थानीय संस्कृति के तत्वों के साथ किसी न किसी प्रकार का अनुकूलन अवश्य करना पड़ता है। सांस्कृतिक वैश्वीकरण के संदर्भ में मुख्य मुद्दा वैश्वीय-स्थानीय संस्कृति के सम्बन्धों का है। यहां हमें इस तथ्य को कभी नहीं भूलना चाहिए कि वैश्वीकरण अपनी बुनियाद में बहुलवादी है और इस कारण

वैश्वीय संस्कृति में पकोड़े भी हैं, साफा और पगड़ी भी है। यह वैश्वीय और स्थानीय विभिन्नता ही, इस सम्पूर्ण प्रक्रिया को बहुलवादी बनाती है।

यह सही है कि वैश्वीकरण समय और स्थान को दबाकर छोटा कर देता है इलेक्ट्रॉनिक मीडिया की भूमिका इस क्षेत्र में बड़ी महत्वपूर्ण है। लेकिन एक और रुचिकर बात आलोचकों ने रखी है। वे कहते हैं कि विभिन्न देशों के भूगोल तो सिमट गये हैं, दूरियां तो कम हो गई हैं लेकिन इसने स्थानीय और आंचलिक स्तर पर एक नया पुनर्जागरण अवश्य पैदा कर दिया है। अब स्थानीय स्तर की समस्याओं को वैश्वीय स्तर पर देखा जाने लगा है। लोग स्थानीय अर्थव्यवस्था और स्थानीय आर्थिक रणनीति को बनाने लगे हैं। वैश्वीकरण अर्थ व्यवस्था में देखने को मिलता है। अब जमीनी स्तर पर स्थानीय परिस्थितियों को देखकर योजना बनाने लगे, अर्थ विकास के कार्यक्रम तैयार करने लगे हैं।

केवीन रोबीन्स ने बहुत स्पष्ट शब्दों में कहा है कि वैश्वीय और स्थानीय संस्कृति की अन्तःक्रिया को कभी भी अवरुद्ध नहीं किया जा सकता। वैश्वीकरण कभी भी अस्थानीयकरण नहीं करता। यह सही है कि आज की दुनिया एक मीडिया दुनिया है लेकिन इस दुनिया के कभी भी स्थानीय दुनिया को काटा नहीं जा सकता। केवीन रोबीन्स (1999) लिखते हैं, "स्थान और संस्कृति की जो जमीनी हकीकत है उसकी हम कभी भी उपेक्षा नहीं कर सकते। उन्हें नजर अन्दाज नहीं कर सकते। वैश्वीकरण का सम्बन्ध वस्तुतः पुनःस्थानीय से है। विश्व और स्थानीयता के सम्बन्धों से जो नई चीज उभरती है वह स्थानीयता को बहुलवादी बनाती है।"

केवीन रोबीन्स के तर्क का आधार यह है कि वैश्वीयता और स्थानीयता की अन्तःक्रिया में जहां वैश्वीयता से संस्कृति के बहुत से पहलू समृद्ध होते हैं, वहीं इस वैश्वीयता अनिवार्य रूप से स्थानीयता भी ताकतवर बनती है। यह भ्रम दूर हो जाना चाहिए कि वैश्वीयता अनिवार्य रूप से स्थानीयता को खा जाती है। ऐसा कुछ नहीं है लेकिन कभी-कभी यदि स्थानीयता कमजोर होती है, उसकी नींव डगमगाती है, तब यह भय बना रहता है कि कहीं वह कमजोर होकर विस्मृति की गर्त में न खो जाये। कुछ आलोचक वैश्वीय-स्थानीय सम्बन्धों के बारे में एक और रुचिकर बात करते हैं। उनका कहना है कि जिसे हम स्थानीयता से मिलकर एक सांस्कृतिक क्षेत्र या अंचल को बनाती है। के. एस. सिंह का प्रोजेक्ट पीपुल ऑफ इण्डिया के अनुसार भारत में 91 सांस्कृतिक क्षेत्र हैं। वैश्वीयता ने सांस्कृतिक क्षेत्रों को अपना बाजार बना दिया है। प्रत्येक क्षेत्रीय आवश्यकता के अनुरूप सांस्कृतिक उत्पाद तैयार किया जाता है। और इसे स्थानीय बाजार में बेच दिया जाता है। ओलिवेटी कार्लो (2000) कहते हैं कि जैसे ही कोई बाजारवाद और स्थानीय बाजार में भरपूर चले जाने पर वहां इस उत्पाद के कारखाने भी खोल दिये जाते हैं। वैश्वीकरण स्थानीय बाजार का एक अभिन्न अंग बन जाता है। इस भांति कोरपोरेट निगम सशक्त रूप से स्थानीय संस्कृति के साथ अन्तःक्रिया करता है।

वैश्वीय-स्थानीय सम्पर्क चाहे मीडिया के माध्यम से हो, या बाजार के माध्यम से, खतरनाक भी है। कुछ आलोचकों का कहना है कि कभी-कभी वैश्वीय संस्कृति और बाजार इतने प्रभावशाली होते हैं कि वे स्थानीयता को समाप्त कर देते हैं। ऐसा भी देखा गया है कि इस सम्बन्ध के परिणामस्वरूप स्थानीय भाषा, तीज-त्यौहार और रीति-रिवाज ओझल हो जाते हैं। कुछ नये सांस्कृतिक प्रतिमान जिनका उद्गम अन्य देशों में होता है, स्थानीय स्तर पर प्रभुत्वशाली हो जाते हैं। कहीं-कहीं तो एक देश में, राज्यों की स्थानीयता दूसरे राज्य पर हावी हो जाती है। वैश्वीय और स्थानीय सम्बन्धों का यह मुद्दा बहुत ही संवेदनशील है। एक ओर वैश्वीय संस्कृति होती है, उदाहरण के लिए पश्चिमी संगीत नृत्य और पहनावा। दूसरी ओर देशीय या राष्ट्रीय संगीत और पहनावा, और स्थानीय संगीत और नृत्य। संस्कृति ये तीनों स्तर जो सापेक्षित है, बाजार और मीडिया के माध्यम से सम्पर्क में आते हैं। यह सम्पर्क कई क्षेत्रों में अनुकूलन पैदा करता है और कहीं तनाव। तनाव के कारण कई देशों में सांस्कृतिक वैश्वीकरण के खिलाफ आन्दोलन भी उठने लगे हैं। इसे हम स्थानीयता द्वारा दी गई वैश्वीय संस्कृति को चुनौती कहते हैं। आगे चलकर हम इस चुनौती पर थोड़ा विस्तार से लिखेंगे। यहां यही कहना पर्याप्त होगा कि वैश्वीय और स्थानीय संस्कृति के सम्बन्ध किसी भी अर्थ में सामान्य नहीं कहे जा सकते। ये जटिल हैं, और विवादास्पद भी।

पर्यटन एवं वैश्वीकरण का सम्बन्ध-

पर्यटन एक अवकाश, एक मौजमस्ती संबंधी कार्यकलाप है जो रोजमर्रा के हमारे बंधे हुए नियमित एवं सुसंगठित कार्य और दैनिक क्रियाओं से भिन्न होता है। इसमें व्यक्ति अपने सामान्य निवास आर कामकाज के स्थान को छोड़कर दूसरे स्थान पर जाता है। पर्यटन जहाँ एक ओर सामाजिक घटनाओं का एक जटिल समूह है, वहीं इसे आजकल एक उद्योग का रूप मिल चुका है। समाजशास्त्री पर्यटन के लिए प्रेरित करने वाले और पर्यटन के स्थानों की ओर आकर्षित करने वाले दोनों कारकों का अध्ययन करते हैं। इन कारकों में रोजमर्रा के कार्यों की थकान मिटाने, आध्यात्मिकता, शिक्षा, स्वास्थ्य और काम-भावना के साथ-साथ नए स्थानों को देखने की जिज्ञासा, आबोहवा, आमोद-प्रमोद, खेलो का आकर्षण आदि हो सकता है।

पर्यटन का दूसरा पहलू यह भी है कि आज हमारे गांवों को नक्शे पर उभरने का मौका मिला है। आज ग्रामीण पर्यटन के माध्यम से हमारे ग्रामों की संस्कृति को निखारने

का प्रयत्न किया जा रहा है परंतु ये ध्यान रखना होगा कि कोई अन्य संस्कृति इन पर हावी न हो पाए, गांवों की संस्कृति प्रदूषित न हो।

संस्कृति नकल से नहीं चलती उसे अपने स्तर पर अपने ढंग से रचनाशील बने रहना होता है यदि हम हमारी संस्कृति को ज्यों का त्यों रखना चाहेंगे तो वह म्यूजियम भर बनी रहेंगी किंतु अगर संस्कृति के उत्कृष्ट पक्षों को हम हमारे आम जीवन से जोड़कर उसे विकसित करना चाहेंगे तो वह प्रगति करेगी। पश्चिम संस्कृति का जिस तरीके से दबदबा बढ़ता जा रहा है हमें हमारी संस्कृति के आधुनिक स्वरूप की तलाश करनी होगी।

वैश्वीकरण एक ऐसा पहलू जो संपूर्ण विश्व को एक ग्राम के परिप्रेक्ष्य में देखता है जहाँ आर्थिक से लेकर सामाजिक हर पहलू तक विश्व के समस्त देश एक दूसरे को मिला-जुला पाते हैं, परंतु समकालीन परिप्रेक्ष्य में तकनीकी के आविष्कार एवं प्रतिस्पर्धा ने मनुष्य को इतना व्यस्त कर दिया है कि व्यक्ति स्वयं के लिए एवं परिवार के लिए समय नहीं निकाल पा रहा है। अतः व्यक्ति आज अपनी अस्मिता ढूँढ रहा है। उसके सामने वैधता का संकट उभर कर आया है। मानव इतना भौतिकवादी हो गया है कि परिवार के लिए अवकाश नहीं है जिसकी अभिव्यक्ति आज हम टूटते परिवारों में देख सकते हैं। अतः सामाजिक ताने-बाने को सहेजने की जरूरत महसूस हुई है।

REFERENCES

1. गिडिन्स,एन्थोनी; (2002) "रनव वर्ल्ड : हाऊ ग्लोबलाइजेशन इज रिशेपिंग ऑवर लाइव्स", लंदन, प्रोफाइल बुक लिमिटेड, पृ.सं. 36-37.
2. कैनेडी ब्रूस (31 अगस्त, 2010) "डायस्पोरा के आर्थिक प्रभाव", रोज वित्त

23 फरवरी, 2011.

3. दोषी,एस.एल.,व जैन,पी.सी.; (2001) "उत्तर आधुनिकतावाद, जयपुर, रावत पब्लिकेशन।

4. लेविट, थियोडोर; (2002) "द ग्लोबलाइजेशन ऑफ मार्केट", सेन फ्रांसिस्को, जॉर्जी-बॉस, पृ.सं. 18-19।

5. वॉटर्स, मैलकाम; "ग्लोबलाइजेशन", लंदन, राउटलेज, पृ.सं. 74-76, 2002.

6. स्केलअर और डनिंग, रिजन, ग्लोबलाइजेशन एण्ड द नॉलेज बेस्ड इकॉनॉमी, रटजर पब्लिकेशन, 2002.

7. गिलपिन,रॉबर्ट; (2001) "ग्लोबल पॉलिटिकल इकोनॉमी", न्यू जर्सी, यू.के, प्रिनस्टोन यूनिवर्सिटी प्रेस, पृ.सं. 232-234.

8. पील, (1997) "बियोन्ड बोर्डरस्" ईपीडब्ल्यू, जनवरी, 2, 1997.

9. रोबस्टर्न, (2000) "द ग्लोबलाइजेशन ऑफ नथिंग" लंदन, राउटलेज, पृ.सं. 111-112.



शहीदों की विधवा महिलाओं के धार्मिक स्तर पर बदलते प्रतिमान (राजस्थान राज्य के जोधपुर जिले की शेरगढ़ तहसील के शहीदों की विधवा महिलाओं के विशेष संदर्भ में)

योगिता रानी पंवार

समाज शास्त्र, विभागजय नारायण व्यास विश्वविद्यालय, जोधपुर

ABSTRACT:

वर्तमान में इस आधुनिकीकरण, वैश्वीकरण, पश्चिमीकरण युग में जहाँ महिलाओं को चाहे वह सधवा महिलाएँ हो या विधवा महिलाएँ को सशक्त करने हेतु महिला सशक्तीकरण वर्ष 2001 मनाया जाता है, वहीं समाज के प्रत्येक क्षेत्र, राज्य, वर्ग, धर्म समुदाय में महिलाएँ उत्पीड़ित, शोषित हो रही हैं, यह अत्याचार भारतीय समाज में चरम सीमा में पहुँच जाता है, जब कोई महिला विधवा हो जाती है इन पर सामाजिक, आर्थिक, धार्मिक सभी प्रकार के प्रतिबंध लगा दिये जाते हैं। राजस्थान राज्य में रूढ़ि प्रथा, परम्पराएँ, प्रदा प्रथा, डाकन प्रथा, बाल विवाह, सती प्रथा, बहुविवाह कन्या (भ्रूण) हत्या, दहेज प्रथा इत्यादि कई सामाजिक कुरूपतियों, प्रथाओं का प्रचलन आज भी पाया जाता है जिसके कारण राजस्थान राज्य के जोधपुर जिले के शेरगढ़ तहसील की शहीदों की विधवा महिलाओं की स्थिति अधिक अच्छी नहीं है। यहाँ आज भी राजपूत जाति की विधवा महिलाएँ पर्दा करती हैं, धार्मिक अंधविश्वासों, कर्मकाण्डों, रीति-रिवाजों को मानती हैं। शिक्षा के विकास के कारण कुछ शिक्षित शहीदों की विधवा महिलाएँ धार्मिक कर्मकाण्डों, अनुष्ठानों को केवल मन की शांति के लिए अपनाती हैं। अंधविश्वासी नहीं हैं किंतु जो शहीदों की विधवा महिलाएँ, अनपढ़ या कम पढ़ी लिखी हैं, वह धार्मिक अंधविश्वासों को अधिक मानती हैं और शोषण का शिकार भी अधिक होती हैं। प्रस्तुत शोध पत्र में राजस्थान राज्य के जोधपुर जिले की शेरगढ़ तहसील की शहीदों की विधवा महिलाओं के धार्मिक स्थितियों में किस प्रकार के परिवर्तन हुये हैं। विधवा महिलाओं पर धार्मिक प्रतिबंध कौन-कौन से लगाये जाते हैं? वर्तमान में इन शहीदों की विधवा महिलाओं का धर्म में विश्वास क्यों है? क्या शेरगढ़ तहसील की शहीदों की विधवा महिलाओं को रंगीन वस्त्र पहनने, धार्मिक स्थल, मंदिरों में प्रवेश, पूजा-पाठ, कर्मकाण्ड करने का अवसर दिया जाता है? संविधान द्वारा धार्मिक स्वतंत्रता का अधिकार दिया गया है? क्या शहीदों की विधवा महिलाओं को इस बात की जानकारी है? इन शहीदों की विधवा महिलाओं का रुझान जादू, टोना, भूत-प्रेत, धार्मिक कट्टरता से हटकर धर्म को तर्क पर अपनाने का कारण और संतो के प्रवचनों को सुनने का क्या कारण है, का विश्लेषण करने का प्रयास किया है।

KEYWORDS:

सशक्तीकरण, अंधविश्वास, रूढ़ि, प्रथा, कर्मकाण्ड, अनुष्ठान, रीति रिवाज, शोषित, दयनीय।

विधवा की अवधारणा, अर्थ

विधवा का तात्पर्य सामान्यतया उस महिला से है, जिसने सामाजिक, आर्थिक, वैधानिक रूप से किये गये विवाह के बाद अपने पति को खो दिया है अर्थात् उसका पति मर गया है। विधवा का सामान्य अर्थ है जीते जागते इन्सान का एक पल में बेजान, निर्जीव कठपुतली बना दिया जाता है। वैधव्य एक स्त्री के लिए उसके महिला शब्द का अर्थ ही बदल देता है। वैधव्य के सम्बन्ध में जो सामाजिक परिणाम आता है वो एक विधवा महिला की स्व-अवधारणा पर हानिकारक प्रभाव छोड़ता है। पति के मरते ही (विधवा होत ही) एक महिला को अपने सुहाग के तमाम प्रतीकों को अपने से अलग करना होता है जैसे-श्रृंगार सुहाग के प्रतीकों को नहीं पहनना, सात्विक भोजन करना, जमीन पर सोना, पर पुरुष से बात नहीं करना, सिर मुँडवाना, सफेद वस्त्र पहनना। वैधव्य भारतीय समाज में कलंक है जो एक महिला की पहचान के साथ जुड़ जाती है। भारत में विधवा महिलाओं की स्थिति अच्छी नहीं थी। सामाजिक परिष्कार की पीड़ा झेलनी पड़ती थी, आर्थिक रूप से पिछड़ी हुई थी, कानूनी रूप से उत्तराधिकार का अधिकार नहीं था। बाद में कई आंदोलनकारी हुये उन्होंने विधवा महिलाओं की स्थिति को सुधारने का प्रयास किया। कानूनी रूप से कई अधिकार की व्यवस्था की। आर्थिक रूप से सशक्त किया। उत्तराधिकार के अधिकार में सुधार किया किंतु फिर भी स्थिति में वांछनीय परिवर्तन, सुधार नहीं हुआ (उमा गिरिश)।¹ लेखक ने युद्ध विधवाओं की मनोवैज्ञानिक, सामाजिक स्थिति का विश्लेषण और बताया कि एक विधवा को उसके पति की मृत्यु के बाद विभिन्न सामाजिक, धार्मिक प्रतिबंधों से गुजरना पड़ता है। अपने पति के शहीद होने और सामाजिक, शोषण, अत्याचारों से परेशान होकर अपना मानसिक संतुलन खो देती है (ल. समगार हेन्डलमैन)।² लेखिका ने भारत, नेपाल की प्रथम विश्व युद्ध से लेकर ऑपरेशन विजय (कारगिल विजय) तक की सभी सैनिक विधवाओं का अध्ययन किया और पाया कि विधवा महिलाओं की सामाजिक, आर्थिक, मनोवैज्ञानिक, धार्मिक, शैक्षणिक स्तर समाज में निम्न दर्जे की है इन्हें कई सामाजिक, आर्थिक, मनोवैज्ञानिक समस्याओं से गुजरना पड़ता है। समाज इन विधवा महिलाओं को अपशुनी कलंक के रूप में देखती है इनका बहिष्कार करती है। इनके साथ भेदभाव पूर्ण रवैया अपनाती है। सरकार द्वारा दी जाने वाली वित्तीय सहायता, कल्याणकारी योजनाएँ भी अपर्याप्त हैं। इनकी दयनीय, शोचनीय स्थिति में अत्यधिक सुधार नहीं ला पायी है (सुषमा सूद)।³ सैनिक विधवा महिलाओं की समाज में प्रस्थिति अच्छी नहीं है। यह विधवा महिलाएँ समाज द्वारा शोषित, प्रताड़ित होती रहती हैं। लेखक ने भारतीय विधवा महिलाओं का सामाजिक, धार्मिक, आर्थिक, राजनीतिक स्थिति का गहन अध्ययन किया और पाया कि प्राचीन काल में भारतीय समाज पित्रसत्तात्मक, पुरुष प्रधान, विधवा महिलाओं के साथ अत्यधिक दुर्व्यवहार, मानसिक, शारीरिक शोषण होता था जिससे तंग आकर कई विधवा महिलाएँ पति के शव के साथ सती हो जाती थी (डॉ. देवी प्रसाद)।⁴ लेखक ने विधवा की दयनीय स्थिति का वर्णन करते हुये कहा कि भारतीय हिंदू समाज में विधवा महिलाओं की स्थिति शोचनीय थी। हिन्दू समाज में महिलाओं के लिए विधवावस्था को उनके पूर्वजन्म के कर्मों का दण्ड माना जाता है। विधवा महिलाओं

को सामाजिक, धार्मिक कार्यक्रमों में भाग लेने का अधिकार नहीं था। मांगलिक कार्यों में उनकी उपस्थिति को अशुभ माना जाता था। समाज में विधवाओं की स्थिति सबसे निम्न थी (गोदावरी)।⁵

धर्म की परिभाषा व अवधारणा –

डॉ. याकूब मसीह ने अपनी पुस्तक समकालीन धर्म दर्शन में धर्म की परिभाषा देते हुए कहा – धर्म वह सर्वांगपूर्ण अभिवृत्ति है, जो किसी समाज समादृत आदर्शपूर्ण विषय के प्रति आत्मसमर्पण एवं अन्तर्बद्धता के हेतु व्यक्ति को सम्पूर्ण जगत के प्रति अभिमुख करती है। मानव मन में देश प्रेम एक प्रवृत्ति है, जिसके कारण समय पड़ने पर उसकी रक्षा के लिए उठ खड़ा होता है, उसके सुधार की बात सोचता है, देश में होने वाली सभी घटनाओं के प्रति क्रियाशील रहता है, ठीक उसी प्रकार मनुष्य के अंतर्गत धर्म की भी एक प्रवृत्ति होती है। उसके मन में एक आदर्शपूर्ण आराध्य देवता होता है। धर्म भी अभिवृत्ति है इसका विषय है आदर्शपूर्ण आराध्य देवता मूर्तय किसी भी भी सामूहिक रूप में पवित्र कहलाने वाला पात्र, धर्म का उद्देश्य यह कदापि नहीं कि ईश्वर या किसी अन्य देवी शक्ति की अराधना की जाये। धर्म का उद्देश्य है कि मानव को ऐसी मन स्थिति की प्राप्ति हो जिससे उसमें शान्ति, आनन्द का संचार हो, इस जीवन में वह अपने कर्तव्यों को निभाने में समर्थ हो सके धर्म में मानवतावाद अनेक धर्म गिने जाते हैं। धर्म में आत्म संवर्धन पर विशेष बल दिया जाता है। धर्म आराध्य देवता की अराधना, पूजा और आत्मसमर्पण को विशेष महत्व देता है। धर्म को आराध्य देवता के स्वरूप के अनुसार विभिन्न वर्गों में रखा जाता है। धर्म का प्रवाह कर्म, ज्ञान, भक्ति इन तीनों धाराओं में चलता है, इन तीनों के सामंजस्य से धर्म अपनी सजीव दशा में रहता है, धर्म अन्तःकरण का विजय है इसे किसी पर थोपा नहीं जा सकता है इसका सीधा सम्बन्ध आत्मा मन से होता है। धर्म एक है, ईश्वर भी एक है, उस तक पहुँचने का मार्ग अलग-अलग है। धर्म और ईश्वर एक है, हम इन दोनों में अन्तर नहीं कर सकते हैं जो अन्तर करते हैं वह स्वार्थ के कारण होता है, धर्म के नाम पर कुछ समाज के स्वार्थी लोग अपनी रोटी सेकते हैं। संविधान ने धर्म की स्वतन्त्रता का अधिकार तो प्रदान कर दिया है लेकिन इसे कहीं भी परिभाषित नहीं किया गया। धर्म की कोई भी परिभाषा देना कठिन है। "धारयते इति धर्म" अर्थात् जो धारण किया जाये वही धर्म है, जो अन्तःकरण को अच्छा लगे वही धर्म है। अन्तःकरण कभी अनिष्ट कार्य करने की अनुमति नहीं देता, धर्म की यह संगत परिभाषा है। उच्चतम न्यायालय के समक्ष धर्म की परिभाषा का प्रश्न आया तब उच्चतम न्यायालय ने कहा कि धार्मिक स्वतन्त्रता सैद्धान्तिक विश्वासों तक ही सीमित नहीं है इसके अन्तर्गत धर्म के अनुसरण में किये गए कार्य भी हैं इसके अंतर्गत धर्म के अभिन्न अंग कर्मकाण्डों धार्मिक कार्यों, संस्कृति उपासनाओं की पद्धतियों की गारन्टी भी सम्मिलित है। धर्म या धार्मिक परिपाटी का आवश्यक भाग क्या है यह अर्थान्वयन का विषय है इसका विनिश्चय न्यायालयों द्वारा धर्म विशेष के सिद्धान्तों के

प्रति निर्देश से किया जायेगा, इसमें ऐसी परिपाटी भी आती है जिन्हें समुदाय द्वारा धर्म का अंग समझा जाता है। इस परिभाषा से धर्म की एक विस्तृत व्याख्या हमारे सामने आती है। धर्म में -1. सैद्धांतिक विश्वास 2. कर्मकाण्ड 3. धार्मिक कार्य, अनुष्ठान 4. संस्कृति 5. उपासना की पद्धति एवं परिपाटी आदि सम्मिलित है। धर्म और धार्मिक परिपाटी की व्याख्या को भी न्यायालयों के विवेक पर छोड़ दिया गया है। (शेशम्मा बनाम स्टेट ऑफ तमिलनाडु, दरगाह कमेटी अजमेर बनाम सैय्यद हसन अली, ए.आई.आर. 1961 एस.सी. 1402, जगन्नाथ रामानुजदास बनाम स्टेट ऑफ उड़ीसा, ए.आई.आर. 1954 एस.सी. 400, कमिश्नर हिन्दू रिलीजियस एन्डोमेन्टस मद्रास बनाम एल.टी. स्वामियार ए.आई.आर. 1954 एस.सी. 282)।

धार्मिक स्तर पर शहीदों की विधवाओं की प्रास्थिति प्रारम्भ से ही दयनीय, शोचनीय रही थी, विधवाएँ, शहीदों की विधवाएँ हिंदू धर्म में वर्षों से शोषित, उपेक्षित अंग रही है, जो अपने वैधव्य से उत्पन्न कष्टप्रद स्थितियों छद्म जातिय गौरव से उदगमित सामाजिक आचार संहिता को अपना भाग्य मानकर जीवन भर के लिए स्वीकार करने को विवश है। धर्म के व्यापक प्रभाव के कारण शहीदों की विधवाएँ निम्नतर प्रास्थिति, निज व्यक्तित्व विकास पर आरोपित प्रतिबन्धों को धार्मिक दृष्टिकोण से अपना भाग्य मानकर स्वीकार करती है और यहांधर्म की भूमिका एक बार पुनः अफीम (मावर्स) के समान हो जाती है जिसके नशे में विधवा महिलाएँ शहीदों की विधवाएँ सामाजिक संरचना द्वारा आरोपित शोषण को ईश्वरीय इच्छा के रूप में परिभाषित कर पारिवारिक सामाजिक स्तर पर विद्रोह व आन्दोलन की संभावनाओं को समाप्त कर देती है।

यहाँ प्रस्तुत अध्ययन में हिंदू धर्म में विधवाओं पर कई प्रतिबंध थे। धर्मसूत्रों और स्मृतियों के युग में स्त्री (विधवा) की दशा पतनोन्मुख हो गयी थी, कई धर्मशास्त्रों में स्मृतिकारों ने उसे कभी भी स्वतन्त्र न रहने के लिये निर्देशित किया जब तक वह कन्या रहे उसे पिता का संरक्षण रहे विवाह होने पर उस पर पति का संरक्षण रहे। वृद्धावस्था में पुत्र का संरक्षण रहे, धार्मिक स्तर पर उसके सारे अधिकारों को, सीमित कर दिया गया जैसे विधवा होने पर सफेद वस्त्र पहनना, सादा खाना खाना, घर से बाहर नहीं निकलना, सोलह श्रृंगार नहीं करना, धार्मिक अनुष्ठान क्रियाकलापों में भाग नहीं लेना, पति की मृत्यु पर सती हो जाना, पर पुरुष से बात करना विधवाओं के खान-पान में मांस, मछली, लहसुन, प्याज खाने की मनाही थी, इसका कारसा था कि पति पति की मृत्यु के बाद काम वासना पर नियन्त्रण रखने के लिए विधवाओं को उष्णतावर्द्धक चीजें खाने की मनाही की गई थी। हिन्दू धर्म के आधार पर विधवाओं को सफेद साड़ीयां वस्त्र धारण करवाया जाता है इसके पीछे निम्नलिखित कारण थे।

पहला कारण – सफेद साड़ी से महिला की समाज में भिन्न पहचान बनती है सभी लोग उसके प्रति संवेदना रखते हैं इस मनोवैज्ञानिक प्रभाव के चलते वह सामाजिक सुरक्षा के दायरे में रहती है। **दूसरा कारण** – महिलाओं का ध्यान न भटके इसलिए उन्हें सफेद कपड़े पहनने को कहा जाता है क्योंकि रंगीन कपड़े इन्सान को भौतिक सुखों के प्रति आकर्षित करते हैं। किसी स्त्री के पति की मृत्यु होने के कारण विधवा महिलाएँ उन चीजों की भौतिक सुखों की भरपाई कैसे करेगी, भौतिक सुख सुविधाओं को प्राप्त करने की लालसा में वह अनैतिक कार्य आचरणों को करेगी इसी बात से बचने के लिए विधवा महिलाओं को सफेद कपड़े पहनने को कहा जाता है। **तीसरा कारण** – शास्त्रों के अनुसार पति को परमेश्वर कहा गया है ऐसे में अगर पति परमेश्वर का जीवन समाप्त हो गया है तो उसकी पत्नी को भी संसार की मोहमाया को छोड़कर सफेद वस्त्र जो आध्यात्मिक, शांति का प्रतीक है पहनकर भगवान में मन लगाना चाहिए।

चौथा कारण – सफेद रंगों को रंगों की अनुपस्थिति वाला रंग माना जाता है जिसके जीवन में कोई रंग नहीं रहे जब किसी महिला का पति मर जाता है तो उसके जीवन में कोई रंग नहीं रह जाता है इसलिए उसे सफेद रंग की साड़ी अनिवार्य जरूरी है। **पांचवा कारण** – हिंदू धर्म एक विधवा महिला को सफेद साड़ी पहनने को अनिवार्य करता है इसके पीछे महत्वपूर्ण कारण यह है कि सफेद रंग आत्मविश्वास, बल, शक्ति प्रदान करता है। वह कठिन से कठिन समय को पार करने में सहायक बनता है। सफेद वस्त्र विधवा स्त्री को प्रभू में अपना ध्यान लगाने में मदद करता है। सफेद वस्त्र पहनने से मन शांत, सात्विक बना रहता है। हिंदू धर्म ग्रन्थों, वेदों में विधवा महिला को सभी अधिकार देने एवं दूसरा विवाह करने का अधिकार भी दिया गया है। वेदों में एक कथन शामिल है:-

'उदीर्ष्व नार्थभि जीवलोक गतासुमेत मुप शेष सम्बन्ध'।

अर्थात् पति की मृत्यु के बाद उसकी विधवा उसकी याद में अपना सारा जीवन व्यतीत कर दे ऐसा कोई धर्म नहीं कहता उस विधवा महिला को पूरा अधिकार है कि वह अन्य पुरुष से विवाह करके अपना जीवन सफल बनाए। हिंदू धर्म में विवाह को पवित्र संस्कार माना जाता है। विवाह 16 संस्कारों में से एक संस्कार माना एक धार्मिक कार्य माना है इसलिए हिन्दू धर्म में पति की मृत्यु के बाद पुनः विवाह करने के बारे में स्पष्ट निर्देश नहीं दिए हैं। किंतु प्राचीन काल की पौराणिक इतिहास परम्पराओं में विवाह, पुनःविवाह, विवाह विच्छेद के उदाहरण मिलते हैं। उदाहरण :- उत्तर भारत के ग्रामीण इलाकों में विधवा विवाह का प्रचलन है, जिसे नाता कहा जाता है।

निष्कर्ष:-

वर्तमान में वैश्वीकरण के फलस्वरूप समाज की दकियानूसी सोच में परिवर्तन आया है। अब समाज के लोगों की सोच बदल रही है इसलिए आज विधवा महिलाएँ, शहीदों की विधवा महिलाएँ, राजस्थान राज्य के जोधपुर जिले शेरगढ़ तहसील की शहीदों की विधवा महिलाओं को भी धार्मिक स्तर पर पूर्णरूप से धार्मिक स्वतंत्रता दी गयी है। वह अपनी इच्छानुसार किसी भी धर्म को अपना सकती है। मंदिर में प्रवेश कर सकती है। रंगीन वस्त्र धारण कर सकती है, किंतु राजस्थान राज्य के जोधपुर जिले के शेरगढ़ तहसील की शहीदों की विधवा महिलाओं, इन तहसील के ग्रामीण समुदाय की शहीदों की विधवा महिलाओं का साक्षात्कार लेने पर पाया गया कि इन शहीदों की विधवा महिलाओं में धर्म, कर्मकाण्ड, रीति-रिवाज प्रथा परम्पराओं सम्बन्धी दृष्टिकोणों में अधिक परिवर्तन नहीं आया क्योंकि भारतीय समाज, विशेष तौर से राजस्थान में धर्म को जीवन का एक महत्वपूर्ण अंग माना जाता है जिससे समाज के व्यक्ति संचालित होते हैं। समाज पर नियंत्रण स्थापित किया जाता है, इस कारण धार्मिक क्षेत्रों में होने वाले परिवर्तनों को सरलतापूर्वक, आसानी से स्वीकार नहीं किया जाता। धार्मिक परिवर्तनों का विरोध होता है। किन्तु शोधकर्ता (शोधार्थी) ने शोध करते हुये यह भी पाया कि वर्तमान युग में शिक्षा का अत्याधिक प्रचार-प्रसार के कारण इन शहीदों की विधवा महिलाओं के बौद्धिक स्तर में वृद्धि हुई है जिसके कारण उनमें धार्मिक कट्टरता, धार्मिक अंधविश्वासों में शिथिलता आई है। धर्म-निरपेक्षता की भावना का विकास हुआ है। शेरगढ़ तहसील की शहीदों की इन विधवा महिलाओं द्वारा धार्मिक उत्सव, धार्मिक कर्मकाण्ड, धार्मिक त्यौहारों, इनसे जुड़ी मान्यताओं, विश्वासों को बड़े ही उत्साह, उमंग से मनाया जाता है। किन्तु इनसे जुड़े अंधविश्वासों को नहीं मानती है। अधिकांश शेरगढ़ तहसील की शहीदों की विधवा महिलाएँ धार्मिक उत्सवों, पूजा-पाठ, आयोजन में भाग लेने के बजाये संतो के प्रवचन को सुनती है, संतो द्वारा दिए जाने वाले प्रवचनों को सुनने के लिए भाग लेती है। यह प्रवचन तर्क पर आधारित नैतिक, मानवीय मूल्यों पर आधारित होते हैं जो इन शहीदों की विधवा महिलाओं में आत्मबल को बढ़ाता है। दुखों को दूर करता है उनमें सामाजिक, मानवीय नैतिक मूल्यों का विकास करता है। भावनात्मक रूप से सशक्त बनाता है।

REFERENCES

1. गिरिश उमा, इंडिया आउट कास्ट विडोज हैव न्यू हेवन्स वी न्यूज, कारस्पॉन्डेंट चेन्नई 18 अप्रैल 2004
2. हेन्डलमैन : इजरायलीवार विडोज : बियान्डे द ग्लॉरि आफ हेरोइजम, बेरगीन एण्ड गावें न्यूयार्क, 30 जुलाई 1986
3. सुद सुषमा : वार विडोज इन इण्डिया एण्ड नेपाल बाफना पब्लिकेशन जयपुर (2001)
4. तिवारी डॉ. देवी प्रसाद, प्राचीन भारत में विधवाएँ, तरुण प्रकाशन, लखनऊ 1994
5. पाटिल गोदावरी, हिंदू विडोज: ए स्टोरी इन दा प्रिवेंशन, ज्ञान पब्लिशिंग हाउस न्यू देहली, 2000
6. शोशम्मा बनाम स्टेट ऑफ तमिलनाडू, ए.आई.आर. 1972 एस.सी. 1576
7. दरगाह कमेटी अजमेर बनाम सैय्यद हसन अली ए.आई.आर. 1961 एस.सी. 1402
8. जगन्नाथ रामानुजदास बनाम स्टेट ऑफ उड़ीसा ए.आई.आर. 1954 एस.सी. 400,
9. कमिश्नर हिन्दू रिलीजियस एन्डोमेन्टस मद्रास बनाम एल.टी. स्वामियार ए.आई.आर. 1954 एस.सी. 282



राजस्थान के कृषि क्षेत्र में विकास और बदलाव: एक विश्लेषणात्मक अध्ययन जयपुर जिले के सन्दर्भ

श्री गोपाल लाल जाट

शोधार्थी, जय नारायण व्यास विश्वविद्यालय, जोधपुर

ABSTRACT:

भारत एक कृषि प्रधान देश है। यहां की अर्थव्यवस्था कृषि पर आधारित है। राजस्थान भारत का उत्तर-पश्चिमी राज्य है, जिसकी लगभग 70% जनसंख्या प्रत्यक्ष व अप्रत्यक्ष रूप से कृषि कार्यों में जुड़ी हुई है। राजस्थान क्षेत्रफल की दृष्टि से देश का सबसे बड़ा राज्य होने के बावजूद शुष्क मरुस्थलिय जलवायु और पानी की कमी के कारण कृषि उत्पादन में पिछड़ा हुआ है। किसान अनेक समस्याओं जैसे- अशिक्षा, अज्ञानता, अंधविश्वास, सामाजिक कुरीतियां, आत्महत्या, ऋणग्रस्तता, मानसून की विफलता, कृषि लागत में वृद्धि आदि समस्याओं से जूझ रहे हैं। किसानों की सामाजिक-आर्थिक स्थिति सुधारने के लिए आधुनिकीकरण, पश्चिमीकरण एवं वैश्वीकरण के साथ-साथ कृषि ऋण व्यवस्था, कृषि विपणन व्यवस्था, सतत कृषि विकास, योजनाबद्ध तरीकों से विभिन्न योजनाओं को लागू करना तथा विभिन्न सरकारी योजनाओं में दी जाने वाली सब्सिडी का सोशल ऑडिट करना जरूरी है। ताकि सरकारी अधिकारी एवं बिचौलिए किसानों को दिया जाने वाले लाभ को हड़प ना सकें। साथ ही योजना का लाभ केवल प्रभावशाली किसानों तक ही सीमित न रहे। किसानों को शिक्षित करने के लिए विभिन्न प्रसार एवं प्रशिक्षण कार्यक्रमों का आयोजन, किसान कॉल सेंटर के माध्यम से उनकी विभिन्न समस्याओं का निवारण, उन्नत कृषि यंत्र एवं मशीनीकरण के प्रशिक्षण के लिए विभिन्न कार्यक्रमों का आयोजन और किसानों को डिजिटल खेती के माध्यम से दूसरे किसानों के साथ जोड़ना आवश्यक है। ताकि सभी किसानों को सभी योजनाओं का पर्याप्त लाभ मिल सके। जब हमारे अन्नदाता, धरतीपुत्र कहे जाने वाले किसानों की सामाजिक आर्थिक स्थिति मजबूत होगी और उनके जीवन में हरियाली आएगी, तभी हमारे राष्ट्र में भी उन्नति और खुशहाली आएगी। किसानों को कर्ज माफी की नहीं बल्कि एक नियमित आय की आवश्यकता है, तभी उनकी सामाजिक-आर्थिक स्थिति सुधर सकती है। आधुनिकीकरण, पश्चिमीकरण एवं वैश्वीकरण से शिक्षा व तकनीकी ज्ञान का प्रसार हुआ है, जिससे किसानों के जीवन में आशातीत परिवर्तन हुआ है। विकास व परिवर्तन के संबंध में प्रमुख पहलू सामाजिक, आर्थिक, धार्मिक एवं सांस्कृतिक है, इन सभी में विकास व परिवर्तनगति समान अवस्था में नहीं पाई गई। जहां परंपरागत खेती के तरीकों में परिवर्तन व विकास की गति तीव्र है; वहीं सामाजिक, सांस्कृतिक व धार्मिक पहलुओं में विकास और परिवर्तन की गति धीमी है। अब भी किसानों में अज्ञानता व अंधविश्वास आदि पाया जाता है।

KEYWORDS:

आधुनिकीकरण, पश्चिमीकरण, वैश्वीकरण, सामाजिक संस्था, डिजिटल खेती, ट्रैक्टर, मशीनीकरण, ट्यूबवेल, हाइब्रिड बीज, रासायनिक उर्वरक।

प्रस्तावना

कृषि ही भारत समेत पूरी दुनिया की अर्थव्यवस्था का मूल आधार है। बिना भोजन के न कोई व्यवस्था काम नहीं कर सकती। भारत के लगभग 70 प्रतिशत लोग कृषि से प्रत्यक्ष या परोक्ष रूप से जुड़े हुए हैं। किसान हमारे देश की 'रीढ़ की हड्डी' के समान हैं। वर्तमान कीमतों के अनुसार वर्ष 1950-51 में भारत की जीडीपी में कृषि का योगदान 51.81% था जो गिरकर वर्ष 1919-20 में 17.8% और 1920-21 में 19.9% रह गया है। यदि हमें भारत को उन्नतशील और सबल राष्ट्र बनाना है तो सबसे पहले किसानों को समृद्ध और आत्मनिर्भर बनाना होगा, इसलिए किसानों से जुड़ा कोई भी अध्ययन बहुत ही महत्वपूर्ण हो जाता है। भारतीय किसान का जीवन बहुत कष्टपूर्ण है स्वयं उपजाने के बाद भी उसे तथा

उसके परिवार को भरपेट खाने को नहीं मिलता। किसान के लिए 'कृषि एक जुआ' है, जिसे सिंचाई के साधनों के अभाव में मानसून पर निर्भर रहना पड़ता है।

भारतीय किसानों पर आधुनिकीकरण, पश्चिमीकरण, वैश्वीकरण के दोनों सकारात्मक एवं नकारात्मक प्रभाव पड़े हैं, फिर भी कुल मिलाकर आधुनिकीकरण, पश्चिमीकरण और वैश्वीकरण से किसानों की सामाजिक एवं आर्थिक स्थिति पहले से मजबूत हुई है और उनके जीवन में धनात्मक परिवर्तन आया है।

भारत में आधुनिकीकरण

आधुनिकीकरण कोई ऐसी घटना या वस्तु नहीं है जो अचानक

समाज में उत्पन्न हो जाए। यह एक ऐतिहासिक प्रक्रिया है जिसका प्रभाव खान-पान, रहन-सहन, वेशभूषा, तर्क, बातचीत, विवेक, आर्थिक एवं प्रौद्योगिकी विकास के क्षेत्रों आदि में देखा जा सकता है। स्वतंत्रता के पश्चात भारत में आधुनिकीकरण की प्रक्रिया का आरंभ हुआ है। कृषि में आधुनिकीकरण की शुरुआत वर्ष 1960 के बाद प्रारंभ हुई इससे पहले यहां पर कृषि परंपरागत तरीकों जैसे हल-बैल, सिंचाई कार्य में पशुओं का उपयोग आदि द्वारा की जाती थी। परंतु वर्तमान में आधुनिकीकरण के कारण कृषि में बढ़ता मशीनों का उपयोग, नवीन तकनीकी व रासायनिक खाद व बीजों का प्रयोग होने लगा है। इसमें सबसे प्रमुख भूमिका ट्रैक्टर की है। ट्रैक्टर कृषि क्षेत्र में खेत को समतल करने, जुताई करने, खेत में मेड बनाने, फसल काटने, फसलों को लाने वाले जाने में बहुत ही महत्वपूर्ण भूमिका निभाता है।

आधुनिकीकरण की प्रक्रिया गतिशीलता, अपरिवर्तनीयता, क्रांतिकारी प्रकृति और विकासवादी प्रकृति वाली है। इसे विकासवादी प्रक्रिया इसलिए कहा जाता है क्योंकि आधुनिकीकरण को होने में कई सालों का समय लग जाता है। आधुनिकीकरण किसी एक क्षेत्र तक सीमित नहीं है; अपितु इस प्रक्रिया को सामाजिक, आर्थिक, राजनीतिक और सांस्कृतिक क्षेत्रों में घटित होते हुए देखा जा सकता है।

किसान पर आधुनिकीकरण के प्रभाव

किसानों पर आधुनिकीकरण का प्रभाव उनके सामाजिक जीवन, रहन-सहन, आचार विचार, खेती करने के तरीके, उनकी पारिवारिक जीवन आदि में परंपरागत तरीकों को छोड़कर आधुनिकता को अपनाना है।

सामाजिक जीवन पर आधुनिकीकरण का प्रभाव

भारतीय किसान परिवारों में संयुक्त परिवार प्रथा, मुखिया का परिवार पर सत्ताधिकार, परिवार का कृषि पर आधारित जीवन, परंपराओं की प्रधानता, धार्मिक विश्वासों और पूर्वजों की पूजा आदि इसकी प्रमुख विशेषता थी। आधुनिकीकरण के कारण किसान परिवारों में सबसे बड़ा सामाजिक परिवर्तन यह पड़ा कि, संयुक्त परिवारों के स्थान पर एकाकी परिवार उभरकर सामने आने लगे हैं। परिवार के मुखिया की स्थिति और प्रभाव में कमी हुई है। अब युवा पीढ़ी भी खुद निर्णय लेने लगी है। परंपराओं, प्रथाओं, लोकाचारों एवं धार्मिक विश्वासों के बंधन ढिले पड़ते जा रहे हैं

वास्तविकता यह है कि आधुनिकीकरण इन परिवर्तनों ने कुछ नवीन समस्याओं को जन्म दिया देने के पश्चात भी किसान के जीवन को बहुत कुछ सीमा तक प्रगतिशील बनाने में योगदान दिया है।

जाति पंचायतों में परिवर्तन -

किसान समुदाय में आधुनिकीकरण के कारण किसान समुदायों में जाति पंचायतों की संरचना में बहुत तेजी से विघटन हुआ है। आधुनिकीकरण एवं औद्योगिकीकरण के कारण विभिन्न जातियों और धर्मों के लोगों के बीच सामाजिक संपर्क बढ़ने लगे हैं जिसके फलस्वरूप जाति पंचायतों के फैसले, जाति बहिष्कार और अन्य प्रकार के दंड का कोई व्यवहारिक प्रभाव नहीं रहा गया। आधुनिकीकरण के कारण अब गांवों में स्वतंत्रता, समानता और धर्मनिरपेक्षता जैसे विशेषताओं का प्रसार हुआ है और जाति पंचायतों के प्रभाव को कम किया गया है।

धार्मिक परिवर्तन -

किसानों का मुख्य व्यवसाय कृषि है। कृषि प्रकृति पर निर्भर है इसलिए प्राकृतिक शक्तियों में किसानों का अटूट विश्वास है और किसान उनकी पूजा एवं आराधना में ही अपना भला समझते हैं। किसान जब चारों ओर से निराश हो जाता है तो वह ईश्वर की शरण में आता है परंतु कभी-कभी धर्म के नाम पर तनाव, संघर्ष, दंगे भी होते हैं इस तरह धर्म अनेक सामाजिक समस्याओं को जन्म भी देता है। परंतु आधुनिकीकरण के प्रभाव से किसानों के धार्मिक अंधविश्वास में कमी आ रही है। जन्म-मृत्यु, विवाह और जीवन के अन्य क्षेत्रों में आधुनिकीकरण व शिक्षा के कारण धार्मिक रूढ़ियों किसान अब कम महत्व देने लगे हैं।

आधुनिकीकरण के कारण किसानों के विवाह संस्कार में महत्वपूर्ण परिवर्तन आया है, बाल विवाह में कमी आई है।

आधुनिकीकरण के कारण किसानों के मनोरंजन के साधनों में भी परिवर्तन आ गया है। अब वे टीवी, सिनेमा देखना अधिक पसंद करते हैं, साथ ही कबड्डी, कुश्ती के बजाय क्रिकेट, वॉलीबॉल खेलना पसंद करते हैं।

आधुनिकीकरण द्वारा कृषि में परिवर्तन

हरित क्रांति, श्वेत क्रांति और नीली क्रांति आधुनिकीकरण के कारण आई हैं। किसानों द्वारा आधुनिक वैज्ञानिक चीजों का प्रयोग निम्नलिखित रूप से किया जा रहा है-

- किसानों द्वारा खेत जोतने के लिए अब बैलों की जगह ट्रैक्टर का प्रयोग किया जा रहा है।
- आधुनिकीकरण से एक ही मौसम में कई फसलें वैज्ञानिक ढंग से उत्पन्न हो रही हैं।
- प्राचीन कृषि पद्धति की जगह नवीन वैज्ञानिक कृषि पद्धति को प्रोत्साहित किया जा रहा है।
- फसल को कीड़ों-मकोड़ों से बचाने के लिए कीटनाशकों एवं

औषधियों का प्रयोग बढ़ गया है।

v. देश में हरित क्रांति लाने में उर्वरकों का महत्वपूर्ण योगदान है। और इनकी खपत लगातार बढ़ रही है।

vi. कृषि क्षेत्र में यंत्रीकरण - पहले किसान बैल, हल और कुएं के अलावा अन्य बातों से सामान्यतः अनभिज्ञ थे। आज विज्ञान और तकनीकी के विकास के कारण बहुत से कृषि यंत्रों का प्रयोग होने लगा है। इसमें ट्रैक्टर, कंबाइन ड्रिल, हार्वेस्टर, पंपिंग सेट एवं ट्यूबेल आदि प्रमुख हैं।

vii. सिंचाई क्षमता - आधुनिकीकरण के कारण सिंचाई सुविधाओं में बहुत अधिक परिवर्तन आया है। अब क्यारी-धोरों के स्थान पर स्प्रिंकलर सिस्टम, बूंद-बूंद सिंचाई पद्धति, का उपयोग होने लगा है। साथ ही डिजिटल खेती के अंतर्गत ग्रीन-हाउस, नेट- हाउस, पॉलीहाउस आदि से कृषि क्षेत्र में बड़ा बदलाव आ रहा है।

किसानों पर आधुनिकीकरण से सामाजिक ढांचे में विसंगतिया भी बढ़ रही है। संयुक्त परिवारों के टूटने से खेत के भी टुकड़े हो जाते हैं। छोटे होते खेत जोत किसानों के लिए कई प्रकार की समस्याएं उत्पन्न करते हैं। वृद्धों के प्रति अनादर की भावना में वृद्धि के साथ व्यक्तिवाद पनप रहा है। खेती में अधिक फसल प्राप्त करने के लिए भूमिगत जल, खाद और कीटनाशकों का अत्यधिक प्रयोग किया जा रहा है जिससे पर्यावरण संबंधित समस्याएं उत्पन्न हो रही हैं। भूमि का जल स्तर भी निरंतर गिरता जा रहा है, साथ ही यंत्रीकरण के उपयोग से कृषि श्रमिकों में बेरोजगारी की समस्या बढ़ती जा रही है।

किसानों पर वैश्वीकरण का प्रभाव

मनुष्य एक सामाजिक प्राणी है, उसके जीवन की समस्त आवश्यकताओं की पूर्ति समाज में ही होती है, वह अकेला रह कर अपनी सभी आवश्यकताओं की पूर्ति नहीं कर सकता है। उसी प्रकार आज वैश्वीकरण में कोई देश (राज्य) बिना दूसरे देश से व्यापार या संपर्क किए अपनी समस्त आवश्यकताओं की पूर्ति नहीं कर सकता। संसार में रोज नए अनुसंधान हो रहे हैं, उनका फायदा दूसरे देश को तभी मिल सकता है, जब वह देश आपस में एक-दूसरे के संपर्क में रहेंगे।

वैश्वीकरण का सबसे महत्वपूर्ण प्रभाव जो कृषि पड़ा उसके परिणाम स्वरूप भारतीय कृषक जहाँ पहले अपने समुदाय से संबंधित आवश्यकताओं की पूर्ति के लिए पैदावार करता था, वहीं अब वे लाभ के उद्देश्य से वस्तुओं का उत्पादन करता है। वैश्वीकरण ने भारतीय 'कृषक' को 'किसान' बना दिया है। वैश्वीकरण ने किसानों तक मशीनीकरण, उन्नत तकनीक और हाइब्रिड बीजों, उर्वरकों आदि की आसान पहुंच बना दी है। उत्पादकता और फसल की प्रगति पर

भारी सकारात्मक प्रभाव पड़ा है। वैश्वीकरण के अगर ढेरों फायदें हैं तो कई नकारात्मक प्रभाव भी हैं। वैश्वीकरण की प्रक्रिया से पूंजीवाद को बढ़ावा मिलता है, साथ ही प्रतिस्पर्धा की वजह से किसानों और राष्ट्र हितों को नुकसान पहुंचता है।

जयपुर जिले में कृषि प्रशिक्षण और अनुसंधान केंद्र

जिला	कृषि विज्ञान केंद्र (KVK)	कृषि अनुसंधान केंद्र (ARS)	कृषि अनुसंधान उप-केंद्र
जयपुर	कोटपुतली, टाकरेड़ा(चौमू)	दुर्गापुरा	कोटपुतली

जयपुर जिले में कृषि का आधुनिकीकरण और बदलाव

जयपुर जिले में कृषि का आधुनिकीकरण की शुरुवात वर्ष 1960 के बाद हुई। जयपुर जिले में वर्तमान में कृषि परिस्थितिकी में बढ़ती मशीनों का उपयोग कृषि आधुनिकीकरण का सूचक है। ट्रैक्टर, कृषि उपकरणों में सबसे अधिक उपयोगी साबित हुआ है। ट्रैक्टर से खेतों की जुताई, बुवाई, अनाज निकालने, खेत को समतल करने, फसलों को लाने ले जाने, फसल की कटाई करने आदि कृषि कार्य कम समय में हो रहे हैं। यह एक बहुउद्देशीय मशीन है, जिसके द्वारा किसानों के अनेक उद्देश्य की पूर्ति आसानी से हो जाती है। कृषि मशीनीकरण में ट्रैक्टर को कृषि का आधार स्तंभ माना गया है। जयपुर जिले में हरित क्रांति के आगमन के साथ ही ट्रैक्टरों की संख्या में आशातीत वृद्धि हुई है। जयपुर जिले की चौमू तहसील में सर्वाधिक ट्रैक्टर एवं थ्रेसर हैं। जिले में विभिन्न किसानों से प्राप्त सूचनाओं से साफ नजर आता है कि किसान अब आधुनिकीकरण के इस युग में परंपरागत साधनों को छोड़कर ट्रैक्टर से खेती कर रहे हैं। जिन किसानों के पास ट्रैक्टर नहीं है वह भी अपने साथी किसानों से किराए पर लेकर अपने खेत में बुवाई से लेकर कटाई व फसल को लाने ले जाने के सभी काम ट्रैक्टर द्वारा करा रहे हैं। ट्रैक्टर द्वारा अकेला आदमी ही काफी विस्तृत क्षेत्र में जुताई आसानी से कर लेता है और उत्पादन में दिनों दिन तीव्र गति से वृद्धि हो रही है।

सारणी 1: जयपुर जिले में कृषि यंत्रों का प्रयोग 2011 से 2017

वर्ष	विद्युत कुँए एवं ट्यूबेल	डीजल पंपसेट
2011-12	139933	20631
2012-13	148631	18362
2013-14	149610	18920
2014-15	148009	21312

2015-16	152541	22458
2016-17	172161	19369

स्रोत - राजस्थान एग्रीकल्चरल स्टैटिक्स एट ए ग्लान्स 2017-18

<https://agriculture.rajasthan.gov.in/content/dam/agriculture/Agriculture%20Department/agriculturalstatistics/rajasthan%20agriculture%20statistics%20at%20a%20glance%202017-18-merged.pdf>

सारणी 2: जयपुर में ट्यूबवेल एवं खुले कुँए की संख्या वर्ष 2018-19

ट्यूबवेल			खुला कुआँ		
विद्युत द्वारा	डीजल द्वारा	कुल	विद्युत द्वारा	डीजल द्वारा	कुल
293350	779	294129	40001	9240	49241

स्रोत - एग्रीकल्चरल स्टैटिक्स 2018-19, डिपार्टमेंट ऑफ प्लानिंग, जयपुर

<https://rajas.raj.nic.in/PDF/99202135102PMPDFAG.pdf>

सारणी 3: जयपुर में कुँए एवं ट्यूबवेल की संख्या वर्ष 2016-17

जयपुर	पुराने कुँए	नए कुँए	पुराने मरमत	कुल	उपयोग से बाहर कुँए	पीने के पानी के लिए कुआँ	कूल	ट्यूबवेल
1	2	3	4	5=2+3+4	6	7	8	9
जयपुर	86859	6	607	81472	61713	230	143415	61264

स्रोत- राजस्थान एग्रीकल्चरल स्टैटिक्स एट ए ग्लान्स 2017-18

<https://agriculture.rajasthan.gov.in/content/dam/agriculture/Agriculture%20Department/agriculturalstatistics/rajasthan%20agriculture%20statistics%20at%20a%20glance%202017-18-merged.pdf>

सारणी संख्या 1 और सारणी संख्या 2 से प्रमाणित होता है कि सन् 2011-12 से 2016-17 तक एक ओर ट्यूबवेलों की संख्या

में निरंतर वृद्धि हो रही है, तो दूसरी ओर कुछ अपवादों को छोड़कर डीजल पंप सेटों की संख्या में निरंतर कमी हो रही है। जिले में तेजी से विद्युतीकरण हो रहा है जिससे डीजल पंपसेटों का स्थान विद्युत संचालित मोटर ले रही हैं। ट्यूबवेलों की बढ़ती संख्या का मुख्य कारण गिरता भूजल स्तर और संयुक्त परिवारों का विघटन है। गिरते भू-जल स्तर के कारण किसान पानी कम पड़ने पर नया ट्यूबवेल खुदवा रहे हैं। संयुक्त परिवार के विघटन के कारण जब दो भाई अलग होते हैं तो वे व्यक्तिवादी भावना के कारण अपना निजी ट्यूबवेल बनवाना चाहते हैं, ताकि आपसी विवाद न हो। इसलिए इस तरह ट्यूबवेलों की संख्या निरंतर बढ़ती जा रही है। डीजल पंपसेट का अधिकतम उपयोग 1990 से पहले हो रहा था किंतु घटते जलस्तर आधुनिकीकरण से विद्युतीकरण में तेजी आई है। विद्युत पंप सेट में लागत भी डीजल पंपसेट से कम आती है और पानी खींचने की क्षमता अधिक होती है। इस तरह आधुनिकीकरण से नवीन तकनीक व यांत्रिक उपकरणों के प्रयोग से कम समय में कम लागत में अधिक कार्य का संपादन होने लगा है।

सारणी संख्या 3 से साफ सिद्ध होता है कि ट्यूबवेलों से भूमिगत जल लगातार घटता जा रहा है। क्षेत्र में लगभग 6713 कुँए ऐसे हैं जिनका अब खेती में उपयोग नहीं हो रहा है। लगभग 230 कुँए केवल पीने के पानी के लिए ही उपयोग में ले जा रहे हैं। आधुनिकीकरण का यह नकारात्मक परिणाम है कि पानी के अत्यधिक दोहन के कारण जल स्तर निरंतर गिरता जा रहा है। वर्तमान में सरकार द्वारा फव्वारा पद्धति, बूंद बूंद सिंचाई से पानी को बर्बाद होने से काफी बचाया जा रहा है। आधुनिक सिंचाई पद्धति जैसे- स्प्रिंकलर सिस्टम व ड्रिप इरिगेशन पर केंद्र व राज्य सरकार दोनों मिलकर क्षेत्र के किसानों को 90% तक सब्सिडी प्रदान कर रही है ताकि पानी की बर्बादी को रोका जा सके।

आधुनिकीकरण एवं पश्चिमीकरण का रहन-सहन पर प्रभाव

राजस्थान के कृषकों में आधुनिकीकरण एवं पश्चिमीकरण का प्रभाव साफ नजर आता है। उनके पारंपरिक खान-पान, रहन-सहन और व्यवहार प्रतिमान में काफी परिवर्तन आया है। अब युवा किसान धोती-कुर्ते के स्थान पर पैंट कमीज पहनने लगे हैं, संयुक्त परिवार का विघटन हो रहा है, पश्चिमीकरण के परिणाम स्वरूप शिक्षा का विकास हुआ है, खेती में ज्यादा लाभ न मिल पाने के कारण वह नौकरी एवं अन्य व्यवसाय की तलाश में लोग अपने परिवार को छोड़कर शहरों में आ रहे हैं, स्त्रियाँ भी अपनी अधिकारों की मांग करने लगी है जिसके परिणाम स्वरूप संयुक्त परिवारों का स्थान एकाकी परिवार ले रहे हैं। सामाजिक संस्थाओं जैसे- जाति, विवाह और धर्म में भी परिवर्तन देखने को मिल रहा है। आधुनिकीकरण एवं पश्चिमीकरण से शिक्षा का प्रसार हुआ और किसानों में जन

चेतना विकसित हुई है। पहले किसानों में अज्ञानता व अशिक्षा के कारण अंधविश्वास, रूढ़िवादिता, देवी-देवताओं में आस्था, भाग्यवादीता, भूत प्रेत, छुआछूत, बाल विवाह, विधवा विवाह निषेध, मृत्यु भोज, जादू टोना आदि अनेक कुरीतियाँ धर्म में के नाम से प्रभावी थीं। यहाँ 28% लोग इन अंधविश्वासों, पुराने रीति-रिवाजों, मृत्यु भोज, जादू टोना आदि में अब भी विश्वास रखते हैं।

आधुनिकीकरण का पर्यावरण पर प्रभाव

हरित क्रांति के पश्चात राजस्थान के तमाम जिलों में कृषि के आधुनिकीकरण, मशीनीकरण, उन्नत बीजों का प्रयोग, रासायनिक खाद का उपयोग, सिंचाई सुविधाओं का विकास के परिणाम स्वरूप अन्न उत्पादन में तीव्र वृद्धि हुई है। खरपतवारनाशक, कीटनाशकों, फफूंदनाशकों और रासायनिक खाद के प्रयोग ने हमारे अन्न भण्डारों को तो भर दिया है, परंतु इन के अंधाधुंध प्रयोग ने पर्यावरण को बुरी तरह से प्रभावित करना भी शुरू कर दिया है। किसान अधिक उपज प्राप्त करने के लिए अब संकर (हाइब्रिड) बीजों का प्रयोग कर रहे हैं साथ ही कीटनाशकों एवं रसायनिक खादों का प्रयोग भी पिछले 20-25 सालों में लगातार बढ़ता ही जा रहा है। विशेषकर फल व सब्जियों में रसायनिक उर्वरकों, कीटनाशकों, जहरीले रंगों आदि का अत्यधिक उपयोग हो रहा है जिनसे स्वास्थ्य संबंधित समस्याएं जैसे- सिरदर्द, जी-घबराना, चक्कर आना, सफेद दाग तथा कैंसर जैसे प्राणघातक रोगों में वृद्धि हो रही है। व्यक्तिगत सर्वेक्षण से स्पष्ट हुआ है कि कृषि कार्यों में उपयोग होने वाले कीटनाशक हमारे परिवार को बुरी तरह प्रभावित कर रहे हैं।

विभिन्न सरकारी एवं गैर सरकारी योजनाओं का प्रभाव

राज्य में कृषि विकास की विभिन्न योजनाएं जैसे- प्रधानमंत्री किसान सम्मान निधि योजना, किसान क्रेडिट कार्ड, प्रधानमंत्री फसल बीमा योजना, न्यूनतम समर्थन मूल्य, प्रधानमंत्री कृषि सिंचाई योजना, फार्म पॉन्ड आदि चल रही है। सर्वेक्षण में किसानों ने माना कि उनकी आर्थिक व सामाजिक स्थिति इन योजनाओं से सुधर रही है। परंतु बहुत सारी योजनाओं का लाभ केवल शिक्षित व प्रभावशाली किसानों को ही अभी तक मिला है, अभी भी इन योजनाओं को सुनिश्चित तरीके से लागू करना एक बड़ी चुनौती है। कृषि क्षेत्र में भ्रमण करने से अब हम खेतों में देख सकते हैं कि; जगह-जगह किसान फव्वारा पद्धति, बूंद-बूंद सिंचाई, सोलर पंप का उपयोग कर रहे हैं। कई जगह हमें फॉर्म पॉन्ड, पॉलीहाउस ग्रीनहाउस, नेटहाउस भी देखने को मिलते हैं, परंतु यह सब प्रभावशाली किसानों ने ही सब्सिडी लेकर अपने खेतों में लगवा रखे हैं। सरकार को चाहिए कि वह लघु व सीमांत किसानों को ध्यान में रखकर ज्यादा से ज्यादा योजनाएं बनाये। कुल मिलाकर कृषि क्षेत्र में विभिन्न योजनाओं के फलस्वरूप किसानों की सामाजिक

व आर्थिक स्थिति पहले से बहुत सुधरी है।

आधुनिकीकरण और वैश्वीकरण का डिजिटल खेती पर प्रभाव

डिजिटल खेती यानी फसलों की पैदावार बढ़ाने और खेती को सक्षम व लाभदायक बनाने के लिए आधुनिक तकनीकों और सेवाओं का इस्तेमाल करना। राजस्थान में आज भी ज्यादातर खेती मानसून पर टिकी हुई है, जिसमें ज्यादा जोखिम है। लेकिन किसान घर बैठे कृषि वैज्ञानिकों बताए तरीकों से इन समस्याओं से निपट सकते हैं, कम पढ़े लिखे किसान भी वीडियो देखकर और सुनकर खेती के बारे में जानकारी ले सकते हैं। किसानों से जुड़े कई मोबाइल एप्स के माध्यम से किसान चुटकियों में जानकारी और घर बैठे ही फसल की फोटो भेज कर कृषि सलाहकारों से सलाह ले सकते हैं। सर्वेक्षण में सामने आया है कि लगभग 20% किसान डिजिटल खेत के विभिन्न एप्स का फायदा उठा रहे हैं। धीरे-धीरे बहुत से किसानों ने डिजिटल खेती को अपनाना शुरू कर दिया है। कम पढ़े-लिखे किसानों ने भी दूसरों की मदद से सोशल मीडिया पर आईडी बनवाई है और यूट्यूब, फेसबुक और व्हाट्सएप का इस्तेमाल कर रहे हैं।

निष्कर्ष

उपरोक्त अध्ययन से यह निष्कर्ष निकलता है कि आधुनिकीकरण, पश्चिमीकरण, एवं वैश्वीकरण से अध्ययन क्षेत्र के किसानों पर सामाजिक व आर्थिक प्रभाव एवं परिवर्तन साफ दिखाई देता है और पहले से किसानों सामाजिक आर्थिक स्थिति सुधरी है। परिवर्तन एवं विकास की गति के संबंध में मुख्य पहलू सामाजिक, आर्थिक, धार्मिक और सांस्कृतिक है। किन्तु इन सभी में विकास एवं परिवर्तन की गति सामान्य अवस्था में नहीं पाई गई है। जहां आधुनिकीकरण के परिणामस्वरूप परम्परागत खेती के तरीकों में परिवर्तन एवं विकास की गति तीव्र है; वहीं सामाजिक, धार्मिक व सांस्कृतिक पहलुओं में बहुत धीमी गति से परिवर्तन हो रहा है। अध्ययन में पाया गया कि ग्रामीण किसानों में सामाजिक परिवर्तन की गति धीमी है। अभी भी किसानों ने पूरी तरह से परंपराओं, अंधविश्वासों, झाड़-फूंक, जादू टोना, पर्दा प्रथा, मृत्यु भोज, बाल विवाह, विधवा पुनर्विवाह आदि कुरीतियों और बुराइयों से पूरी तरह छुटकारा नहीं पाया है। लगभग 30% किसान आज भी इन परंपराओं में विश्वास रखते हैं। खेतों में नवाचार, यंत्रीकरण, डिजिटल खेती एवं शिक्षा के कारण तीव्र गति से परिवर्तन हो रहा है। आधुनिकीकरण के फलस्वरूप एकाकी परिवार की प्रवृत्ति बढ़ी है, व्यक्तिवाद को बढ़ावा मिला है, खेतों के टुकड़ों के कारण खेत जोत छोटे होते जा रहे हैं। वही हरित क्रांति के पश्चात खेतों में ट्रैक्टर, स्पिंकलर सिस्टम, ड्रिप इरीगेशन, सोलर पंप सेटो और रासायनिक उर्वरकों व कीटनाशकों का तेजी से उपयोग बढ़ा है। आधुनिक खेती ने हमारे अनाज के

गोदामों को तो भर दिया है परंतु पर्यावरण की समस्या भी उत्पन्न कर दी है। निष्कर्ष के तौर कहा जा सकता है कि यदि हमें अपने खेतों से लगातार उत्पादन करना है तो हमें परंपरागत खेती व आधुनिक खेती के बीच समन्वय स्थापित करना होगा। हमें उर्वरको, कीटनाशको का सीमित उपयोग कर जैविक खाद व गोबर खाद की ओर भी ध्यान देना चाहिए।

REFERENCES

1. लवानिया, एम. एम एवं जैन, शशि के., "ग्रामीण समाजशास्त्र", रिसर्च पब्लिकेशंस, जयपुर
2. पालीवाल, दीपक, (2020), "ग्रामीण समाजशास्त्र -1", उत्तराखंड मुक्त विश्वविद्यालय प्रकाशन, हल्द्वानी.
<https://www.uou.ac.in/sites/default/files/slm/MASO-504.pdf>
3. शर्मा, वीरेंद्र प्रकाश (2004), "ग्रामीण समाजशास्त्र", पंचशील प्रकाशन, जयपुर जयपुर
4. राष्ट्रीय किसान नीति 2007, कृषि एवं सहकारिता विभाग, कृषि मंत्रालय, भारत सरकार.
<https://agricoop.nic.in/sites/default/files/nphindi.pdf>
5. शेखावत, धीर सिंह (2018), "कृषि का आधुनिकीकरण - आलोचनात्मक अध्ययन", JMME,

6. कुलदीप अरविंद कुमार (2019), "कोटपूतली तहसील में कृषि आधुनिकीकरण के पर्यावरण पर प्रभाव का भौगोलिक अध्ययन", जर्नल ऑफ एडवांसेज एंड स्कॉलरली रिसर्चस इन एलाइड एजुकेशन.

7. राजस्थान एग्रीकल्चरल स्टैटिक्स एट ए ग्लान्स 2017-18, डिपार्टमेंट ऑफ एग्रीकल्चर, गवर्नमेंट ऑफ राजस्थान
<https://agriculture.rajasthan.gov.in/content/dam/agriculture/Agriculture%20Department/agriculturalstatistics/rajasthan%20agriculture%20statistics%20at%20a%20glance%202017-18-merged.pdf>

8. एग्रीकल्चरल स्टैटिक्स 2018-19, डायरेक्टरेट आफ इकोनॉमिक्स एंड स्टैटिक्स, डिपार्टमेंट ऑफ प्लानिंग, जयपुर, राजस्थान
<https://rajas.raj.nic.in/PDF/99202135102PMPDFAG.pdf>

9. राजस्थान एग्रीकल्चरल स्टैटिक्स एट ए ग्लान्स 2017-18, डिपार्टमेंट ऑफ एग्रीकल्चर, गवर्नमेंट ऑफ राजस्थान
<https://agriculture.rajasthan.gov.in/content/dam/agriculture/Agriculture%20Department/agriculturalstatistics/rajasthan%20agriculture%20statistics%20at%20a%20glance%202017-18-merged.pdf>



साइबर सुरक्षा एवं साइबर कानून का शोसल मीडिया पर प्रभाव साथ ही, साइबर अपराधों का अभियोजन द्वारा किए जा रहे वैज्ञानिक अन्वेषण तथा इलेक्ट्रानिक अभिलेखों को न्यायालय में किस प्रकार प्रस्तुत किया जाए का तुलनात्मक अध्ययन।

डॉ प्रदीप कुमार तिवारी

सहायक प्राध्यापक, विधि संकाय, माधव विश्वविद्यालय पिंडवारा रोड जिला सिरौही राजीस्थान

ABSTRACT:

वर्तमान समय में साइबर अपराध बड़ी तेजी से बढ़ रहा है, साइबर अपराध वह अपराध है, जो इंटर नेट के माध्यम से कम्प्यूटर के द्वारा साइबर स्पेस में किए जा रहे हैं, वर्तमान समय में साइबर स्टेकिंग, साइबर पोरनोग्राफी, डेटा चोरी, मालावार अटैक, ई-मेल बम्बिंग, सलामी अटैक, साइबर टैरारिज्म, आनलाइन ठगी, महिलाओं से सम्बंधित अपराध जैसे आनलाइन छेड़खानी, मानहानि, आनलाइन जुआ, एवं आनलाइन चोरी के अपराध बड़ी तेजी से बढ़ रहे हैं, कोरोना काल के साइबर अपराध की बाढ़ सी आ गई थी, ताजा शोध के अनुसार 40 प्रतिशत मोबाइल उपयोगकर्ता आनलाइन ठगी का शिकार हुए थे। साथ ही सोशल मीडिया से सम्बंधित अपराधों की बड़ोतरी बड़ी तादात् में हुई थी, काफी मात्रा में भ्रामक समाचार व्हाट्स अप तथा फेसबुक के माध्यम से एक यूजर से दूसरे यूजर को फारवर्ड किए जा रहे थे, कोरोना से सम्बंधित भ्रामक तथ्य भी बहुतायत में एक दूसरे को फेलाए जा रहे थे, सरकार को भी समय-2 पर ऐडवाएजरी जारी करनी पड़ रही थी, परंतु उक्त ऐडवाएजरी का आम जनता पर असर न के बराबर पड़ रहा था, सरकार ने तद् सम्बंध में सज्जान लेते हुए कार्यवाही भी की थी, तथा सोशल मीडिया के माध्यम से भ्रामक खबर फैलाने तथा आनलाईन ठगी करने पर सम्बंधित पुलिस थानों द्वारा सूचना प्राद्योगकी के तहत मामले भी पंजीबद्ध किए गए थे, परंतु अन्वेषण अधिकारी को अन्वेषण किस प्रकार किया जाए जानकारी न होने के कारण चालान न्यायालय में प्रस्तुत नहीं हो सके, कुछ चालान न्यायालय में प्रस्तुत हुए भी पर इलेक्ट्रानिक अभिलेखों को न्यायालय में किस प्रकार प्रस्तुत किया जाए, तथा माननीय सर्वोच्च न्यायालय के द्वारा इलेक्ट्रानिक

अभिलेखों के सम्बंध में क्या प्रावधान है, की जानकारी न हाने के कारण प्रकरणों का विचारण न्यायालय में उचित मापदण्डों के आधार पर नहीं हो पा रहा है, उक्त आलेख में साइबर अपराधों की विस्तार से जानकारी के साथ आम जन मानस को साइबर सुरक्षा की जानकारी के साथ ही, अभियोजन द्वारा साइबर अपराधों की विवेचना किस प्रकार की जाए जानकारी दी जा रही है, जिसके अन्तर्गत दण्ड प्रक्रिया संहिता की धारा 80, 81, एवं 91 154 के प्रावधान एवं साक्ष्य अधिनियम की धारा 27 एवं 28 का विषय रूप से प्रकाश डाला जा रहा है, एवं साक्ष्य अधिनियम की धारा 65 बी के तहत इलेक्ट्रानिक अभिलेख को न्यायालय के समक्ष प्रस्तुत करते समय क्या प्रावधान है का वर्णन किया जा रहा है, उक्त तारयतम्य में माननीय सर्वोच्च न्यायालय ने इलेक्ट्रानिक अभिलेख के संदर्भ में क्या निर्णय पारित किया गया है, तुलनात्मक अध्ययन किया जा रहा है।

KEYWORDS:

साइबर अपराध क्या है

साइबर अपराध वर्तमान समय में भारत में बड़ी तेजी से बढ़ रहा है, सामान्य तौर पर साइबर अपराध वह अपराध है, जो साइबर स्पेस में इंटरनेट के माध्यम से कम्प्यूटर द्वारा किये जाते हैं, जिसकी कोई भौगोलिक सीमा नहीं होती, अमेरिका में बैठा व्यक्ति भी भारत में ऑनलाइन ठगी, को अंजाम दे सकता है, साथ ही बैवसाइट हैकिंग, सोशल मीडिया से सम्बंधित, अपराध आदि की घटनाओं को अंजाम दे सकता है, ऐसे में अभियोजन का साइबर अपराधों को पकड़ना तथा उसे न्यायालय द्वारा दोष सिद्ध कराना एक चुनौती पूर्ण कार्य है, साइबर अपराध में अभियोजन की बड़ी भूमिका होती है, साइबर अपराध एक कम्प्यूटर जनित अपराध है, जिसके अन्तर्गत किये गये अपराध की वास्तविकता और अपराधी को पकड़कर उसे न्यायालय में प्रस्तुत करना तथा साक्ष्य को विषय प्रक्रिया के अन्तर्गत न्यायालय में साक्ष्य अधिनियम के अन्तर्गत प्रमाणित कराना एक साहसिक कार्य है, प्रस्तुत आलेख में अपराध क्या है, साइबर अपराध कितने प्रकार है, तथा इन अपराधों का अन्वेषण पुलिस द्वारा किस प्रकार किया जाना चाहिए साइबर अपराधों को पकड़ने के बाद अभियोजन द्वारा साक्ष्य अधिनियम के अन्तर्गत एकत्र किये गये दस्तावेजों को किस प्रकार प्रमाणित कराया जाता है, तथा एक अन्वेषण अधिकारी की साइबर अपराध के अनुसंधान एवं साइबर अपराधों को न्यायालय में प्रस्तुत करने तथा दस्तावेजों साक्ष्य को प्रमाणित करने में क्या भूमिका होती है, वर्णन किया गया है।

साइबर कानून

साइबर अपराध कम्प्यूटर जनित अपराध है, जो कम्प्यूटर के माध्यम से इंटरनेट के द्वारा साइबर स्पेस में किए जाते हैं जब कोई व्यक्ति किसी अन्य व्यक्ति को हानि पहुंचाने की नियत से कम्प्यूटर, मोबाइल, या अन्य किसी इलेक्ट्रानिक डिवाइस के माध्यम कोई संदेश डेटा, विडियो, चिह्न साइबर स्पेस में इंटरनेट के माध्यम से भेजते हैं, तो उसे अपराध साइबर अपराध कहलाते हैं, अर्थात् साइबर अपराध को प्रमाणित करने के निम्न लिखित तत्वों का होना आवश्यक है।

1, मैन्स रिया या गिल्टी माइन्ड 2- मोटिव या उद्देश्य 3- अपराध का कारित करना या लोप करना, साथ ही किया गया अपराध तत्समय प्रवर्तनीय वधि के अन्तर्गत दण्डनीय हो। अगर कोई व्यक्ति भारत में साइबर अपराध कारित करता है, तो वह सूचना प्राद्योगकी अधिनियम 2000 एवं 2008 के तहत दण्डनीय होगा, साइबर अपराधों के संदर्भ में सूचना प्राद्योगकी अधिनियम के साथ में भारतीय दण्ड संहिता, एवं दण्ड प्रक्रिया संहिता के प्रावधान लागू होते हैं।

कम्प्यूटर क्या है।

कम्प्यूटर एक इलेक्ट्रानिक डिवाइस है, जिसमें डेटा इनपुट करने में आउट पुट के रूप सम्बंधित डेटा स्क्रीन में दिखाई देता है। तथा जिसके डेटा को इलेक्ट्रानिक अभिलेख के रूप में साक्ष्य के रूप में संग्रहित किया जाता है, जो कि अकिय डेटा, चित्र, विडियो, ध्वनी के रूप में होता है, मोबाइल को भी वर्तमान में कम्प्यूटर के डिवाइस के रूप में माना जाता है, मोबाइल, टैबलेट, को भी इलेक्ट्रानिक डिवाइस के रूप में माना जाता है।

2- साइबर लॉ का विस्तार

साइबर लॉ के विस्तार में निम्न लिखित विषयों का अध्ययन किया जाता है

- 1- संसूचनाओं का अदान प्रदान करना।
- 2- इलेक्ट्रानिक हस्ताक्षर।
- 3- इलेक्ट्रानिक एवं अकिय अभिलेख।
- 4- साइबर अपराध।
- 5- बौद्धिक सम्पदा एवं कापीराईट एक्ट।
- 7- डेटा सनंरक्षण
- 8- टैड मार्क एक्ट।

3- संसूचनाओं का अदान प्रदान -

संसूचनाओं के अदान प्रदान को तेजी से बढ़ते हुए साइबर अपराध की रीड की हड़डी माना जाता है, इसका मुख्य कारण यह है, बिना संसूचनाओं के अदान प्रदान के किसी भी प्रकार के साइबर अपराध के होने की संभावना नहीं होती वर्तमान समय में संसूचनाओं का अदान प्रदान ई-मेल वाट्स अप, तथा अन्य प्रकार के शोसल मीडिया के माध्यम से होता है, जैसे इन्स्टाग्राम, फेसबुक, टैलीग्राम, आदि।

2- इलेक्ट्रानिक अभिलेख -

इलेक्ट्रानिक अभिलेख से तात्पर्य ऐसे दस्तावेज से है, जो इलेक्ट्रानिक युक्ति के माध्यम से कम्प्यूटर द्वारा तैयार किये जाते हैं, जिसकी परिभाषा सूचना प्राद्योगकी की धारा (3) में बताई गई है।

इलेक्ट्रानिक हस्ताक्षर का प्रयोग सामान्तः अकिय हस्ताक्षर करने तथा दस्तावेज को अधिप्रमाणित करने के लिए किया जाता है, किसी आनलाईन माध्यम से भेजे गये दस्तावेज को अधिप्रमाणित करने के लिए भी इलेक्ट्रानिक हस्ताक्षर का प्रयोग किया

जाता है। साइबर अपराध इंटरनेट के माध्यम से संसूचनाओं के एक डिवाइस से दूसरे डिवाइस पर भेजे जाने से होता है, संसूचना को एक डिवाइस से दूसरे डिवाइस पर भेजने वाले यूजर बड़े ही चालाक होते हैं, इन्हें पुलिस द्वारा पकड़ पाना अत्यंत कठिन होता है, क्योंकि ऐ बड़ी ही आसानी से सूचना तंत्र को समाप्त कर देते हैं, साइबर आतंकवाद के अपराधी को पकड़ पाना अत्यंत कठिन होता है, क्योंकि ये इकिषन विधि का उपयोग करके भेजे गए संदेश के माध्यम (उदगम) को समाप्त कर देते हैं, शोसल मीडिया के माध्यम से यूजर द्वारा वाट्सअप, फेसबुक, इनस्टाग्राम, से संदेश तेजी से सम्प्रसारित किये जाते हैं, यूजर अपना काम करके इलेक्ट्रॉनिक दस्तावेज को समाप्त कर देते हैं, इस कारण साइबर से सम्बंधित पर्याप्त दस्तावेजी साक्ष्य न हाने के कारण अपराधी आसानी से बरी हो जाते हैं, तथा अन्वेषण अधिकारी को भी दस्तावेजी साक्ष्य को एकत्रित करने में बड़ी ही चुनौतियों का सामना करना पड़ता है, अन्वेषण अधिकारी को साक्ष्य एकत्रित करने में बड़ी ही कठनाइयों का सामना करना पड़ता है, साइबर अपराध साइबर स्पेस में इंटरनेट के माध्यम से अत्यधिक मात्रा में घटित होते हैं, परंतु दस्तावेजी साक्ष्य के अभाव में तथा उन साक्ष्यों का बारीकी से वैज्ञानिक परीक्षण न होने के कारण आरोपी न्यायालय से बरी हो जाते हैं, साइबर अपराध को न्यायालय में साबित करने के लिए दस्तावेजी साक्ष्य का अत्यधिक महत्व है।

साइबर अपराध

साइबर अपराध वह अपराध है, जो साइबर स्पेस में इंटरनेट के माध्यम से कम्प्यूटर द्वारा किया जाता है, जब इंटरनेट के माध्यम से यूजर द्वारा एक डिवाइस से दूसरे डिवाइस में संदेश जो एक चित्र, पिकचर, वीडियो विलफ, दस्तावेज, तथा चिन्ह के माध्यम से किसी विशेष उद्देश्य की पूर्ति के लिए या किसी अन्य व्यक्ति को हानि पहुँचाने, मानहानि करने या आतंकित करने, छल करने, चोरी करने के नियत से किये जाते हैं, साइबर अपराध कहलाते हैं। साइबर अपराध के अन्तर्गत साइबर स्टेकिंग, साइबर पोर्नोग्राफी, एथिकल हैकिंग, साइबर आतंकवाद, साइबर मानहानि, आन लाईन ठगी, डेटा थैफ्ट, डिनाईल ऑफ सर्विस अटैक, बैकिंग फ्रॉड, आनलाइन इनफिज्नेमेंट, बैवसाईट हैकिंग आदि अपराध आते हैं।

बौद्धिक सम्पदा एवं कापी राईट एक्ट

वर्तमान समय में आनलाइन माध्यम से बौद्धिक सम्पदा के हरण के अपराध अत्यधिक मात्रा में बढ़ रहे हैं, बौद्धिक सम्पदा वह सम्पदा होती है, जिसमें कोई व्यक्ति अपनी बुद्धि के द्वारा कोई कार्य करता है और उसे कापीराइट अधिनियम के अन्तर्गत सुरक्षित कर देता है, अगर कोई यूजर आनलाइन माध्यम से किसी व्यक्ति की बौद्धिक सम्पदा का हरण करता है, तो वह इस अधिनियम के अन्तर्गत एक दण्डनीय अपराध है, गीत, सीनेमा, पैटिंग, संगीत, किताब लेखन, कार डिजाइन, फाइन आर्ट इत्यादि बौद्धिक सम्पदा के अन्तर्गत आता है, अगर कोई यूजर आनलाइन माध्यम से अधिकृत व्यक्ति के बिना इजाजत बौद्धिक सम्पदा डाउनलोड करता है, एवं उसका उपयोग व्यक्तिगत हित में करता है, तो वह व्यक्ति बौद्धिक सम्पदा के अन्तर्गत दोषी माना जाएगा। उक्त कार्य में किमिनल विचारण के साथ दिवानी दावा भी किया जा सकता है।

डेटा संरक्षण – हर व्यक्ति का डेटा अति महत्वपूर्ण है, संविधान के अनुच्छेद 21 के अन्तर्गत भारत के प्रत्येक नागरिक को निजता का अधिकार प्राप्त है, अगर कोई व्यक्ति यूजर कम्प्यूटर आनलाइन माध्यम से बिना अधिकृत व्यक्ति की अनुमति से उसका डेटा चोरी करता है, या किसी अन्य व्यक्ति को डेटा बँचता है यह कानूनी अपराध माना जावेगा वर्तमान में भारत में तद्सम्बंध में कोई प्रभावी कानून नहीं है, अपितु अमरिका में उक्त सम्बंध में कठोर कानूनी प्रावधान है, भारत में अगर कोई यूजर बिना इजाजत किसी अन्य व्यक्ति का डेटा चोरी करता है या किसी अन्य व्यक्ति का डेटा साझा करता है, तो वह सूचना प्रद्योगकी की धारा 43 ए के अन्तर्गत दोषी शहोगा जिसके अन्तर्गत पीडित व्यक्ति दीवानो दावा भी दायर कर सकता है, भारत में अभी डेटा के सम्बंध में कोई प्रभावी कानून नहीं है, वर्तमान में भारत सरकार द्वारा डेटा संरक्षण के सम्बंध डेटा संरक्षण अधिनियम 2022 ड्रॉफ्ट कर लिया गया है, जिसे संसद में पेशकिये जाने की सम्भावना है।

ट्रैड मार्क एक्ट

ट्रैड मार्क एक्ट सन् 1999 में पास किया गया था, जिसका प्रमुख उद्देश्य ट्रैड मार्क की चोरी को रोकना था, वर्तमान समय में आनलाइन माध्यम से ट्रैड मार्क की चोरी बढ़ रही है, बैरन कनवैन्शन और डब्लू टी. औ. द्वारा तत् सम्बंध में प्रभावी कानून बनाए गए हैं, अगर कोई इंटरनेट के माध्यम से ट्रैड मार्क की चोरी करता है, तो वह इस अधिनियम के अन्तर्गत दोषी माना जाएगा।

विभिन्न प्रकार के साइबर अपराध

1 – साइबर स्टेकिंग, साइबर पोर्नोग्राफी, साइबर आतंकवाद, आनलाइन जुआ, एथिकल हैकिंग, आनलाइन ठगी, साइबर मानहानि, डेटा थैफ्ट, डिनाईल ऑफ सर्विस अटैक, शोसल मीडिया सम्बंधी अपराध जैसे फेस बुक, वाट्स अप के माध्यम से धार्मिक भावना भडकाना, मानहानि करना, ई-मैल बाम्बिंग, आदि प्रमुख साइबर अपराध हैं, किसी व्यक्ति की निजी जानकारी प्राप्त कर लेना, आनलाइन जुआ, बेव जैकिंग, आदि साइबर अपराध हैं, जिनका अन्वेषण अत्याधिक सर्तकता के साथ साइबर अपराधों का अन्वेषण

करना चाहिए, क्योंकि साइबर अपराधी अत्यधिक चालाक होते हैं, साइबर अपराधी को पकड़ पाना अत्यधिक मुश्किल होता है, माननीय उच्चतम न्यायालय ने अनवर पी.वी. विरुद्ध पी.के. बशीर 1014 के मामले में साइबर अपराध की विवेचना किस प्रकार किया जाए विस्तार से समझाया गया है, प्रस्तुत आलेख में जिसका वर्णन किया जा रहा है।

सूचना प्रद्योगकी अधिनियम की धारा 78 के अनुसार किसी थाने का भारसाधक अधिकारी इन्स्पेक्टर ही साइबर अपराधों की विवेचना कर सकता है, चाहे वह केंद्र सरकार के आधिनस्थ पदस्थ हो या राज्य सरकार से वह संबंधित अपराध की विवेचना करने के लिए अधिकृत है, वह उस जगह में प्रवेश कर सकता है, तलाशी ले सकता है, अभियुक्त को गिरफ्तार कर सकता है जहा पर साइबर अपराध कारित हुआ है, अगर अभियुक्त को गिरफ्तार करने के लिए पर्याप्त साक्ष्य उपलब्ध है, सूचना प्रद्योगकी अधिनियम की धारा 80 के अन्तर्गत साइबर क्राइम अपराध की विवेचना किस प्रकार की जावे, उसका वर्णन करती है, जिसमें सार्वजनिक जगह को भी परिभाषित किया गया है, जो निम्न प्रकार है। "सार्वजनिक स्थान से तात्पर्य एक ऐसा स्थान जहा पर लोग आते जाते हैं, जो आम जन की सुविधा के लिए बनाई गई है, जिसमें हवाई अड्डा, रेलवे स्टेशन, बस स्टैंड आदि आते हैं", साइबर अपराध जिस डिवाइस से कारित किया गया है उसे अन्वेषण अधिकारी अपने कब्जे में ले सकता है।

साइबर अपराध के अन्वेषण में धारा 80 यह भी वर्णित करती है कि अन्वेषण के दौरान दण्ड प्रकिया संहिता 1973 के प्रावधान लागू होंगे, जिसके अन्तर्गत प्रमुख रूपे जहा पर साइबर अपराध कारित हुआ है, बिना वारंट के प्रवेशकरना तथा जिस डिवाइस से साइबर अपराध कारित हुआ है, उसे जब्त करना तथा जब्त दस्तावेज को फारेंसिक जॉब के लिए भेजना, साथ ही धारा 91 दण्ड प्रकिया संहिता के अन्तर्गत दस्तावेजों को न्यायालय में प्रस्तुत करना, दण्ड प्रकिया संहिता की धारा 311, 312, 314, 316 का अनुपालन कर अभियोजन साक्ष्य को न्यायालय में प्रस्तुत करना, इसके साथ ही अभियोजन का प्रमुख कार्य होता है कि इलेक्ट्रॉनिक दस्तावेज को साक्ष्य अधिनियम की धारा 65 ए तथा 65 बी के तहत प्रमाणित करना।

इलेक्ट्रॉनिक दस्तावेज

सूचना प्रद्योगकी अधिनियम की धारा 3 में इलेक्ट्रॉनिक अभिलेख को परिभाषित किया गया है, जिसके अन्तर्गत कोई दस्तावेज, पिकचर, अकिये हस्ताक्षर, चिह्न, डेटा, आडियो, वीडियो क्लिप, इलेक्ट्रॉनिक फार्म में हों, अर्थात् कम्प्यूटर, लेपटाप, मोबाइल द्वारा लिए गये हैं, इलेक्ट्रॉनिक दस्तावेज कहलाते हैं।

इलेक्ट्रॉनिक तथा अंकीय हस्ताक्षर को अधिप्रमाणित करने के सम्बंध में –

इलेक्ट्रॉनिक हस्ताक्षर का प्रयोग सामान्तः अंकीय हस्ताक्षरों को अधिप्रमाणित बनाने के लिए प्रयोग किया जाता है, जिनसे तीन प्रकार की विधिक अपेक्षाओं की पूर्ति होती है –

- 1- हस्ताक्षरकर्ता की अधिप्रमाणिकता
- 2- संदेशों की अधिप्रमाणिकता
- 3- संदेशों की सत्यनिष्ठा

माननीय उच्चतम न्यायालय द्वारा पारित विभिन्न न्यायिक द्रष्टांतों का तुलनात्मक अध्ययन

साक्ष्य अधिनियम की धारा 65 ए तथा 65 बी दस्तावेजी साक्ष्यों को न्यायालय में अधिप्रमाणित करने सम्बंधी प्रावधानों की व्याख्या करती है, धारा 3 सूचना प्रद्योगकी अधिनियम के अन्तर्गत परिभाषित इलेक्ट्रॉनिक अभिलेखों को साक्ष्य अधिनियम की धारा 65बी के अन्तर्गत अधिप्रमाणित किया जाता है, तत् सम्बंध में उच्चतम न्यायालय द्वारा पारित विभिन्न न्यायिक द्रष्टांतों में विशेषज्ञ की राय कब सुसंगत होगी भिन्न-2 अभिमत प्रदान किये, " कृमिनल अपील कृमांक- 373.375 नवजोद सिंह संशू विरुद्ध दिल्ली राज्य 2004 में पारित निर्णय में माननीय उच्चतम न्यायालय ने अपना अभिमत देते हुए स्पष्ट किया की इलेक्ट्रॉनिक साक्ष्य को न्यायालय में पेश करने के पूर्व विशेषज्ञ की राय आवश्यक नहीं होगी, बिना विशेषज्ञ की राय तथा उसके प्रमाण पत्र के बिना भी इलेक्ट्रॉनिक अभिलेख न्यायालय प्रस्तुत किये जा सकते हैं, इसी तरह का निर्णय अजमल कसाब विरुद्ध महाराष्ट्र राज्य में पारित किया गया था, इन दोनों निर्णय से कूट रचना करने की सम्भावना बढ़ गई तथा अभियोजन द्वारा अभियुक्त को सजा दिलाने की नियत से फर्जी दस्तावेज प्रस्तुत किये जाने लगे, इसके उपरांत सन् 2014 में अनवर पी.वी विरुद्ध पी.के. बशीर एवं अन्य विरुद्ध ओडीषा राज्य सिविल अपील कृमांक 4226 / 2012 के मामले में माननीय मुख्य न्यायाधीश कुरियन जोसफ एवं न्यायमूर्ति फली नरीमन की बैंच ने अपने निर्णय में इलेक्ट्रॉनिक अभिलेखों को धारा 65 बी के तहत न्यायालय में द्वितीयक साक्ष्य के रूप में न्यायालय में पेश करते समय विशेषज्ञ की राय के प्रमाण पत्र अनिवार्यता पर बल दिया तथा कहा कि इलेक्ट्रॉनिक अभिलेखों को न्यायालय में प्रस्तुत करते समय प्रमाण पत्र आवश्यक है, इन सभी विरोधाभासी निर्णयों के उपरांत न्यायिक जगत में चर्चा का विषय बन गया की इलेक्ट्रॉनिक अभिलेखों को न्यायालय

में प्रस्तुत करते समय विशेषज्ञ की राय की आवश्यकता कब होगी। इसके उपरांत सन् 2018 में, अर्जुन पंडित राव केडकर विरुद्ध कैलाश राव गोंन्टीयार 2018 के मामले में बनी संवैधानिक बेंच द्वारा निर्णय पारित किया गया जिसकी अध्यक्षता जस्टिस फली नरीमन ने की उक्त निर्णय के सासभूत बिन्दु निम्न प्रकार है।

1- अगर किसी मामले में इलेक्ट्रानिक अभिलेख को इलेक्ट्रानिक डिवाइस जैसे लेपटाप, केमरा, कम्प्यूटर, मोबाइल, तथा किसी हार्डडिस्क के माध्यम से सीधे न्यायालय में प्रस्तुत किया जाता है, तो धारा 27 साक्ष्य अधिनियम के अन्तर्गत विशेषज्ञ के प्रमाण पत्र की आवश्यकता नहीं होगी।

2- अगर किसी एलेक्ट्रानिक अभिलेख को धारा 65बो साक्ष्य अधिनियम के अन्तर्गत द्वितीयक साक्ष्य के रूप में प्रस्तुत किया जाता है, तो विशेषज्ञ की राय प्रमाण पत्र की आवश्यकता होगी।

3- सिविल मामलों में अगर न्यायालय द्वारा द्वितीयक साक्ष्य के संदर्भ विशेषज्ञ की राय का प्रमाण पत्र मांगा जाता है, तो सम्बंधित पक्षकार को इलेक्ट्रानिक अभिलेख के संदर्भ में प्रमाण पत्र प्रस्तुत करना होगा।

4- साथ ही माननीय सर्वोच्च न्यायालय द्वारा सर्विस प्रोवाइडरो को दिशा निर्देश जारी किए गये की इलेक्ट्रानिक डेटा को 5 वर्षों तक प्रिजर्व रखना होगा तथा मांगे जाने पर न्यायालय में प्रस्तुत करना होगा।

उक्त न्याय निर्णय के पश्चात ईलेक्ट्रानिक दस्तावेजों के संदर्भ में न्यायिक जगत में छाई अनिश्चितता समाप्त हो गई, वर्तमान में उक्त निर्णय के अधार पर कार्य किया जा रहा है।

REFERENCES

1. ए.के श्रीवास्तव, डैटा प्रोटेक्शन लॉ इन इंडिया , सर्व ऑफ ग्लोबल इफैक्ट, युरोपीय डैटा प्रोटेक्शन लॉ रिवीव 408 –415 2019””
2. अदिति श्रीवास्तव, अविनाश गौस्वामी और डॉ रितु गौतम, साइबर क्राइम रेगुलेशन और सिक्वोरटी, कन्टैपररी इशू और चैलेन्जस –07–17 2022
3. अक्षय एस, एनालेसेस ऑफ दी डैटा प्रोटेक्शन लॉ इन इंडिया एस.एस.आर.आर.एन
4. एन्ड्रीव पी. ब्रीजेस आनलाइन प्लेटफार्म एण्ड पपुलर टैक्नोलाजीस 2020 लीगल एण्ड रेगुलर रीसपोन्सेस टू टैक्नोलाजी चैलेन्जस 2020।
5. एनीब्रान महापात्रा एण्ड अरुण प्रभु, दी डिजिटल पर्सनल डैटा प्रोटेक्शन बिल, 2022 पार्ट –1 इंडिया कॉर्पोरेट लॉ (2022)

6. अशीत हसंपाल, एनालेसिस ऑफ दी डिजिटल पर्सनल डैटा प्रोटेक्शन बिल, 2022 –डैटा प्रोटेक्शन बिल 2022,

7. कम्पेरिजन इंडियन पर्सनल डैटा प्रोटेक्शन बिल 2019 विरुद्ध जी.डी.पी.आर (2022)

8. डैटा प्रोटेक्शन और प्राइवैसी लेजीसलेशन वर्डवाइड यू.एन.सी.टी.ए.डी. (2021)

9. डॉ अशोक कौनजांलागी, त्रिप्ती एन.एस. कुरबट, सिक्वोरटी थ्रेट इन इनडियन साइबर स्पैस, बाई शोषल मीडिया एंड साइबर हाक्सस वाल्यूम –2 इन्टरनेशनल जरनल ऑफ ट्रैन्ड इन साईनटिफिक रिसर्च एन्ड डैवलपमेंट 598–600 (2018)

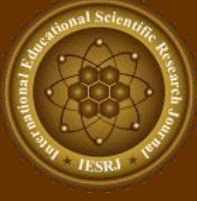
10. डॉ अशोक कउजालांनगी त्रिप्ती एन.एस. एण्ड कुरबेट सिक्वोरटी थ्रेट इन इंडियन साइबर स्पैस वाल्यूम –2, इन्टरनेशनल जरनल ऑफ ट्रैन्ड इन साइबर स्पैस बाई शोसल मीडिया ,

11. गुरमीत कौर, प्राइवैसी इश्यू, इन साइबर स्पैस : एन इंडियन प्रिसिपिटिव एस.एस.आर.एन ईलेक्ट्रानिक जरनल –20(2020)

12. हैन्ड बुक ऑफ काईम एण्ड टक्नोलाजी ।

कैस लॉ

1. नवजोद सिंह सन्धू विरुद्ध यूनियन ऑफ इंडिया
2. अनवर पी.वी विरुद्ध पी.के. बशीर एवं अन्य विरुद्ध ओडीशा राज्य
3. अर्जुन पंडित राव केडकर विरुद्ध कैलाश राव गोंन्टीयार 2018
4. अजमल कसाब विरुद्ध महाराष्ट्र राज्य।



कोविड-19 : सामाजिक आर्थिक बदलाव व चुनौतियाँ

सुमन पूनीया

शोधार्थी, राजनीति विज्ञान विभाग गोविन्द गुरु जनजातीय विश्वविद्यालय बांसवाड़ा

ABSTRACT:

ऐतिहासिक विवरणों के माध्यम से ज्ञात होता है कि मानव सभ्यताओं ने मानव जाति व मानव संस्कृति के इतिहास में अनेक अप्रत्याशित विभिषिकाओं का सामना किया है। वैश्विक स्तर पर अनेक बार आपदायें आईं जो मानव जाति के नियंत्रण से बाहर थीं पर मानव ने अपने विवेक, साहस तथा धैर्य से उन आपदाओं पर विजय प्राप्त की एवं अपने विकास रूपी चक्र को सदा गतिशील रखा। समय के साथ अपने सम्मुख उत्पन्न संकटों को चीरते हुए आगे बढ़ने का साहस मानव में मानव सभ्यता के मूल मंत्र "संकल्प से सिद्धि" के भाव के साथ आता है। यह मूल मंत्र संदेश देता है कि मानव द्वारा जो लक्ष्य निर्धारित किया जाता उसकी पूर्ति सम्भव है।

भारत में वर्तमान की भाँति पूर्व में 1918 की स्पैनिश फ्लू नाम की महामारी का प्रभाव हमारे परिवेश में पड़ा। एक अनुमान के अनुसार स्पैनिश महामारी से देश में 1.8 करोड़ लोगों की मृत्यु हुई थी जो उस समय की आबादी का 6 प्रतिशत था। कोविड-19 वैश्विक महामारी की तुलना वॉल स्ट्रीट जर्नल के एक लेख में स्पैनिश फ्लू से की गई है तथा यह भी कहा गया है कि पूर्व की भाँति मृत्यु दर उतनी नहीं होगी क्योंकि संसाधनों की उपलब्धता के कारण संसार भर में अनेक बदलाव हुए हैं।

कोविड-19 महामारी और इससे संबंधित लॉकडाउन का अर्थव्यवस्था पर बहुत ही बुरा प्रभाव पड़ा जिसके कारण सबसे कमजोर वर्गों को आजीविका, कमाई का नुकसान हुआ और उन्हें खाद्य असुरक्षा भी झेलनी पड़ी। यद्यपि इस महामारी का लोगों के आर्थिक कल्याण पर पड़ा प्रभाव अधिक स्पष्ट रूप से दिखता है, उनके मानसिक स्वास्थ्य पर हुआ प्रभाव उतना ही प्रतिकूल है लेकिन वह साफ दिखता नहीं है।

KEYWORDS:

कोविड-19, आपदायें, महामारी, लॉकडाउन, अर्थव्यवस्था, आर्थिक

प्रस्तावना

अतीत में झाँके तो 31 दिसंबर, 2019 से ठीक एक दिन पहले चीन ने वुहान प्रांत में कोरोना वायरस संक्रमण का पहला मामला दर्ज किया था। इसका कोई औपचारिक नाम नहीं था और ज्यादातर लोगों ने इसे नोवेल कोरोना वायरस या 2019-एनओसीवी नाम दिया था। चीन की अति संरक्षित शासन के बीच से छिट-पुट मामले ही रिसकर बाहर आ पाए थे। 30 जनवरी, 2020 को भारत ने इस बीमारी का पहला मामला सामने आया। 11 फरवरी, 2020 को विश्व स्वास्थ्य संगठन ने इसे नोवेल कोरोना वायरस से होने वाली बीमारी का औपचारिक नाम दिया, जो कुछ ही हफ्ते में तेजी से फैलने वाली महामारी बन गई। हमने पहली बार इसका डरावना नाम सुना : कोविड-19- जिसमें 'को' का मतलब कोरोना, 'वि' का मतलब वायरस और 'डी' का आशय बीमारी के लिए व '19' का प्रयोग 2019 के लिए है।

कोविड-19 महामारी ने दुनियाभर के लोगों के स्वास्थ्य, आजीविका और सामाजिक जीवन को प्रभावित किया है। विश्व स्वास्थ्य संगठन (WHO) द्वारा महामारी घोषित किए जाने के बाद अनेक देशों ने परिस्थिति अनुसार अलग-अलग समय में लॉकडाउन घोषित किया। भारत सरकार ने 23 मार्च 2020 से लॉकडाउन की घोषणा की जिसे कई चरणों में विस्तारित करते हुए 31 मई 2020 तक बढ़ाया गया। परिणामस्वरूप, सार्वजनिक स्थानों को बंद कर दिया गया, लोगों की आवा-जाही को प्रतिबंधित करते हुए सामाजिक दूरी का पालन करने को कहा गया। अचानक घोषित लॉकडाउन से देशभर में लोग बिना किसी पूर्व सूचना एवं तैयारी के जो जहाँ थे वे वही कैद हो गए। कोविड महामारी के दौरान लगाए गए लॉकडाउन ने समाज के कमजोर और हाशिए के वर्गों के सामने आने वाली चुनौतियों को और ज्यादा बढ़ाया।

सामाजिक आर्थिक बदलाव व चुनौतियाँ

वैश्विक महामारी कोविड-19 ने पूरे विश्व की अर्थव्यवस्था को बुरे दौर में पहुंचा दिया है, आमजन के साथ-साथ देशों की और सरकारों की आर्थिक स्थिति पहले की तरह सुदृढ़ नहीं रह गयी है। अर्थव्यवस्था उत्पादन, वितरण एवं खपत की एक सामाजिक व्यवस्था है। भारत की अर्थव्यवस्था विश्व की तीसरी सबसे बड़ी अर्थव्यवस्था है। क्षेत्रफल की दृष्टि से विश्व में सातवें स्थान पर है, जनसंख्या में इसका दूसरा स्थान है और केवल 2.4 फीसद क्षेत्रफल के साथ भारत विश्व की जनसंख्या के 17.5 फीसद भाग को शरण प्रदान करता है यानी विश्व की कूल जनसंख्या में 17.5 फीसद भारतीय नागरिक हैं।

1991 से भारत में बहुत तेज आर्थिक प्रगति हुई है जब से उदारीकरण और आर्थिक सुधार की नीति लागू की गयी है और भारत विश्व की एक आर्थिक महाशक्ति के रूप में उभरकर आया है। सुधारों से पूर्व मुख्य रूप से भारतीय उद्योगों और व्यापार पर सरकारी नियंत्रण का बोलबाला था और सुधार लायू करने से पूर्व इसका जोरदार विरोध भी हुआ परंतु आर्थिक सुधारों के अच्छे परिणाम सामने आने से विरोध काफी हद तक कम हुआ है। हालांकि मूलभूत ढाँचे में तेज प्रगति न होने से एक बड़ा तबका

अब भी नाखुश है और एक बड़ा हिस्सा इन सुधारों से अभी भी लाभान्वित नहीं हो पाया है।

कोरोना महामारी ने भारत की अर्थव्यवस्था पर गहरा निशान छोड़ दिया है। कोरोना की पहली लहर से डगमगाई भारतीय अर्थव्यवस्था अभी पटरी पर लौटी भी नहीं थी कि कोरोना की दूसरी लहर ने इसे बुरी तरह प्रभावित कर दिया। जिससे भारत के आर्थिक विकास की उम्मीदों पर पानी फिरने लगा है क्योंकि कोरोना काल में करोड़ों लोगों के नौकरी खोने और बैंक कर्ज में डिफाल्टरों की संख्या बढ़ने से कोविड-19 महामारी के वित्तीय झटके से उबरने में अधिक रुकावटें आ रही हैं।

अर्थशास्त्री अपने अनुमानों को डाटा की एक श्रेणी के रूप में डाउनग्रेड कर रहे हैं। अर्थशास्त्रियों का कहना है कि चेक बाउंस होने की दर में बढ़ोतरी से लेकर गिरवी रखे गए सोने के आभूषणों की बिक्री कोरोना बीमारी की विनाशकारी दूसरी लहर से हुए आर्थिक क्षति की सीमा को दर्शाता है।

कुछ पर्यवेक्षकों को इस साल भारत में फैली वायरस महामारी से मनोवैज्ञानिक आघात का भी डर है, उनका अनुमान है कि इससे हजारों लोगों की मौत हो जाएगी, और उपभोक्ता खर्च करने के लिए अनिच्छुक हो जाएंगे।

वहीं भारत की सरकार इस पूर्वानुमान के साथ आगे बढ़ रही है एक अप्रैल से शुरू हुए वित्तीय वर्ष में अर्थव्यवस्था 10.5 फीसदी बढ़ेगी, लेकिन मंगलवार को देश के सबसे बड़े ऋणदाता भारतीय स्टेट बैंक ने अपने विकास के अनुमान को 10.4 प्रतिशत से घटाकर 7.9 फीसदी कर दिया। साथ ही बार्कलेज और यूबीएस जैसे कई अंतरराष्ट्रीय बैंकों ने भी अपने पूर्वानुमानों में कटौती की है।

2020-21 में 7.3 फीसदी संकुचन के बाद भारत द्वारा अब तक दर्ज की गई सबसे तेज रिकवरी-अपेक्षाकृत मौन वसूली भारत को अमेरिका और चीन जैसे देशों के साथ बाधाओं की श्रेणी में डालती है, जो महामारी से उभरने के साथ ही तेजी से बदलाव देख रहे हैं और गहरी क्षति का सुझाव देते हैं, जिन्होंने कोरोना संकट की चपेट में आने से पहले लगभग 2.9 ट्रिलियन डॉलर की अर्थव्यवस्था का जिक्र किया था। भारत जैसी तेजी से विकाशशील अर्थव्यवस्था पर उप-सममूल्य वृद्धि का प्रभाव महत्वपूर्ण हो सकता है।

एसबीआई के मुख्य अर्थशास्त्री सौम्य कांति घोष ने अपने पूर्वानुमान को कम करने के बाद कहा कि 'देश में जीडीपी की वृद्धि दर 10 फीसदी से कम होगी, मैं आपदा शब्द का उपयोग नहीं करूंगा, लेकिन यह बहुत अच्छा परिणाम नहीं होगा।'

सेंटर फॉर मॉनिटिंग इंडियन इकोनॉमी के आंकड़ों के अनुसार, कोरोना से उत्पन्न हुई स्थिति ने बेरोजगारी को बढ़ा दिया है, जो मई में 12 महीने के उच्च स्तर 11.9 फीसदी को छू गई है, यह अप्रैल में 7.97 फीसदी थी। निजी स्वामित्व वाली फर्म के अनुसार, ग्रामीण बेरोजगारी, जो आम तौर पर लगभग 6-7 फीसदी के आसपास रहती है, मई में दोहरे अंकों के स्तर पर पहुंच गई है।

पिछले दो वर्षों से आर्थिक सुस्ती चल ही रही थी, इसी बीच कोविड-19 ने आकर भारतीय

अर्थव्यवस्था की सुस्ती को और बढ़ा दिया। इस प्रकार देश में माँग आधारित आर्थिक सुस्ती आ चुकी थी और अब इसने माँग के साथ-साथ आपूर्ति आधारित सुस्ती का रूप धारण कर लिया है। वर्तमान की बात करें तो भारतीय अर्थव्यवस्था एक गहरे संकट की तरफ बढ़ रही है। प्रतिष्ठित अन्तर्राष्ट्रीय संस्थाओं ने भीतर की आर्थिक वृद्धि दर के सन्दर्भ में जो आँकलन जारी किये हैं, वे चिन्ताजनक हैं। सेन्टर फॉर मॉनिटरिंग इन्डियन इकोनॉमी द्वारा जारी आँकड़ों के अनुसार भारत में लॉकडाउन की वजह से कुल 12 करोड़ नौकरियाँ चली गई हैं। कोरोना संकट से पहले भारत में कुल रोजगार आबादी की संख्या 40.4 करोड़ थी जो इस संकट के बाद घटकर 28.5 करोड़ हो चुकी है। हमें जान और जहान दोनों बचाना है। यदि जान बचाने के लिए लॉकडाउन करना है तो जहान बचाने के लिए लोगों की जीविका के साधनों को पुनः स्थापित करना है। अतः आर्थिक मोर्चे पर कुछ बड़े फैसले लेने होंगे। हेल्थ इमरजेंसी और इकोनॉमिक इमरजेंसी में तालमेल बैठाना होगा। भारतीय अर्थव्यवस्था में रिवर्स माइग्रेशन भी दिख रहा है। लोग शहरों से वापस गाँव की तरफ लौट रहे हैं। आने वाले समय में कोरोना वायरस की समस्या भारत में कितनी गंभीर होती है और उस पर कब तक पूर्णतः काबू पाया जा सकता है? इसका असर भी भारतीय अर्थव्यवस्था पर पड़ेगा। कोरोना के कारण भारत की आर्थिक वृद्धि दर में गिरावट आयेगी, कोरोना ने भारत ही नहीं बल्कि दुनिया की अर्थव्यवस्था को खराब कर रखा है। वर्ल्ड बैंक के अनुमान के मुताबिक वित्तीय वर्ष 2019-20 में भारतीय अर्थव्यवस्था की वृद्धि दर घटकर मात्र 5 प्रतिशत रह जायेगी, तो वहीं वर्ष 2020-21 में तुलनात्मक आधार पर अर्थव्यवस्था की वृद्धि दर में भारी गिरावट आयेगी, जो घटकर मात्र 2.8 प्रतिशत रह जायेगी।

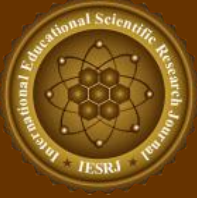
लॉकडाउन के कारण, फैक्ट्री, ऑफिस, मॉल्स, व्यवसाय आदि बन्द हो जाते हैं, घरेलू माँग और आपूर्ति प्रभावित होने के कारण आर्थिक वृद्धि दर प्रभावित होती है। अतः जोखिम बढ़ने से घरेलू निवेश के सुधार में देरी होती है जिसके कारण अर्थव्यवस्था मुश्किल दौर में पहुँच जाती है। इंटरनेशनल लेबर आर्गनाइजेशन ने कहा था कि कोरोना वायरस सिर्फ वैश्विक स्वास्थ्य संकट नहीं रहा बल्कि ये एक बड़ा लेबर मार्केट और आर्थिक संकट भी बन गया है जो लोगों को बड़े पैमाने पर प्रभावित करेगा। विश्व बैंक ने भी आगाह किया है कि इस महामारी की वजह से भारत ही नहीं बल्कि समूचा दक्षिण एशिया गरीबी उन्मूलन से मिले फायदे को गँवा सकता है। अतः भारत को भी कोविड महामारी को फैलने से रोकने के लिए जल्द से जल्द प्रभावी कदम उठाना होगा, इसके साथ स्थानीय स्तर पर अस्थायी रोजगार सृजन कार्यक्रमों पर भी ध्यान देना होगा। सरकार द्वारा कोविड-19 के प्रसार को रोकने के लिए लॉकडाउन और सोशल डिस्टेंसिंग जैसे प्रयासों से औद्योगिक उत्पादन प्रभावित हुआ है। लॉकडाउन के कारण बेरोजगारी बढ़ी है, जिससे सार्वजनिक क्षेत्र में भारी कटौती हुई है, कच्चे माल की उपलब्धता, उत्पादन और तैयार उत्पादों के वितरण की श्रृंखला प्रभावित हुई है, जिसे पुनः शुरू करने में लम्बा समय लग सकता है। उत्पादन स्थगित होने के कारण मजदूरों का पलायन बढ़ा है, इस दशा में पुनः कुशल मजदूरों की नियुक्ति करके पूरी क्षमता के साथ उत्पादन शुरू करना एक बड़ी चुनौती है। इसका अर्थव्यवस्था पर विपरीत प्रभाव पड़ेगा। खनन और उत्पादन जैसे अन्य क्षेत्रों में गिरावट का प्रभाव सेवा क्षेत्र की कम्पनियों पर भी पड़ा है। एविएशन सेक्टर में वेतन कम करने की खबर है, रेस्टोरेंट बन्द होने से लोग घूमने नहीं निकल रहे हैं। सामान की खरीदारी भी नहीं हो रही है। कम्पनियों को किराया, वेतन तथा अन्य खर्चों का भुगतान करना पड़ रहा है। घाटा झेल रही कम्पनियों अधिक समय तक यह भार सहन नहीं कर सकती। लॉकडाउन का सबसे अधिक असर अनौपचारिक क्षेत्र पर पड़ा है, अर्थव्यवस्था का 50 प्रतिशत जीडीपी अनौपचारिक क्षेत्र से ही आता है। यह क्षेत्र लॉकडाउन के दौरान काम नहीं कर सकता, और न कच्चा माल खरीद सकते न बनाया हुआ माल बाजार में बेच सकते, अतः उनकी कमाई बन्द हो जायेगी। अनौपचारिक क्षेत्र में फेरीवाले, विक्रेता, कलाकार, लघुउद्योग और सीमापार व्यापार शामिल हैं। लॉकडाउन के दौर में सबसे ज्यादा असर एविएशन, पर्यटन, होटल आदि क्षेत्रों पर पड़ा है। कोरोना के कारण भारत सरकार द्वारा विदेशी निवेश के जरिये अर्थव्यवस्था को सुदृढ़ करने की जो कोशिश थी, उसे भी धक्का लगेगा।

रिजर्व बैंक ने सभी बैंकों से सभी कर्जों पर तीन माह तक कर्जों का भुगतान (किस्तों को) टालने को कहा है। साथ ही ब्याज दरों में कमी की है। हमारे देश में छोटे-छोटे कारखानों और लघु उद्योगों की संख्या बहुत ज्यादा है। कोरोना से उनकी कमाई रुक जायेगी, आर्थिक तंगी में आकर कई लोग महानजनों से ऊँचे ब्याज दर पर कर्ज ले लेते हैं और कर्जजाल में फँस जाते हैं। ऑटोमोबाइल सेक्टर,

रियल स्टेट, लघुउद्योग आदि असंगठित क्षेत्रों में सुस्ती छापी है। बैंक एन.पी.ए. की समस्या से निपट रहे हैं। सरकार ने निवेश के जरिए नियमों में राहत और आर्थिक मदद देकर अर्थव्यवस्था को राहत देने की कोशिश की। इस तरह से कोविड काल ने देश की अर्थव्यवस्था की जड़ों को खोखला किया है। अन्तर्राष्ट्रीय वित्तीय संस्था आई.एम.एफ. ने एक टास्क फोर्स का गठन किया है। इस टास्क फोर्स का उद्देश्य है कि बिगड़ती हुई अर्थव्यवस्था को कैसे पटरी पर लाया जाय? इस टास्क फोर्स में आर.बी.आई. के पूर्व गवर्नर रघुराम राजन भी हैं। इसी तरह भारत को भी चाहिए कि प्रतिभाशाली अर्थशास्त्रियों की एक कमेटी का गठन किया जाय, जिसमें प्रोफेशनल हो और वे भारतीय चुनौतियों के अनुसार देश की अर्थव्यवस्था को पटरी पर लाने के लिए चरणबद्ध तरीके से नीतिगत समाधान सरकार के सामने रखें। यद्यपि कोविड-19 के कारण भारतीय अर्थव्यवस्था का परिदृश्य अच्छा नहीं दिख रहा है, पर वह दिन दूर नहीं जब हम कर्मठ भारतीय श्रम और संघर्ष से अर्थव्यवस्था को नई ऊँचाइयों तक पहुँचाने में सक्षम होंगे।

REFERENCES

1. Perappadan, Bindu Shajan (30 January 2020). "India's first coronavirus infection confirmed in Kerala". *The Hindu*. ISSN 0971-751X.
2. "India most infected by Covid-19 among Asian countries, leaves Turkey behind". *Hindustan Times*. 29 May 2020.
3. Bhattacharya, Amit (24 May 2021). "India's Covid toll tops 3 lakh, 50,000 deaths in 12 days". *The Times of India*.
4. "India's COVID crisis 'beyond heartbreaking': WHO". *www.aljazeera.com*. Retrieved 26 April 2021.
5. Andrews, MA; Areekal, Binu; Rajesh, KR; Krishnan, Jijith; Suryakala, R; Krishnan, Biju; Muraly, CP; Santhosh, PV (May 2020). "First confirmed case of COVID-19 infection in India: A case report". *Indian Journal of Medical Research*. 151 (5): 490-492. doi:10.4103/ijmr.IJMR_2131_20.
6. Narasimhan, T. E. (30 January 2020). "India's first coronavirus case: Kerala student in Wuhan tested positive". *Business Standard India*. Archived from the original on 11 March 2020.
7. "Infections over 1 lakh, five cities with half the cases: India's coronavirus story so far". *The Week*.
8. Shivani Kumar (10 June 2020). "Covid-19: Number of recoveries exceed active cases for first time". *Hindustan Times*. New Delhi



नवीकरणीय संसाधन और हरित अर्थव्यवस्था राजस्थान के संदर्भ में।

नरेन्द्र कौर

सहायक आचार्य, राजकीय महाविद्यालय, हिन्दुमलकोट।

निशा रानी

शोधार्थी, महर्षि दयानंद सरस्वती वि०विद्यालय, अजमेर।

ABSTRACT:

संसाधन किसी भी प्रदेश के प्राकृतिक पर्यावरण का निर्माण करते हैं। संसाधनों के अभाव में प्रदेश के विकास अथवा मानवीय जीवन के विकास की कल्पना करना सम्भव नहीं है। संसाधन सम्पन्न क्षेत्र प्रदेश की अर्थव्यवस्था को सतत आधार प्रदान करता है। वर्तमान संदर्भ में देखा जाए तो मानवीय संसाधन में तीव्र वृद्धि हो रही है जिससे अन्य संसाधनों की मांग में वृद्धि हो रही है। मानवीय संसाधन के कौशल व तकनीकी उपयोग से जहाँ एक ओर आर्थिक विकास को बढ़ावा मिल रहा है, वहाँ दूसरी ओर तीव्र आर्थिक विकास, बढ़ती हुई जनसंख्या तथा बढ़ती संसाधनों की मांग इत्यादि कारकों के समुच्चय के कारण केवल सीमित भण्डार वाले संसाधनों पर दबाव बढ़ रहा है, बल्कि विभिन्न प्रकार के प्रदूषण में भी वृद्धि हो रही है। अतः वर्तमान परिस्थितियों को देखते हुए यह आवश्यक हो गया है कि अक्षय ऊर्जा के विकास को बढ़ावा दिया जाए, जिससे संसाधनों पर बढ़ते हुए दबाव को कम किया जा सके तथा आर्थिक विकास के साथ-साथ पर्यावरणीय प्रदूषण को कम कर पर्यावरण हितैषी हरित अर्थव्यवस्था को विकसित किया जा सके।

राजस्थान राज्य में नवीकरणीय संसाधनों के विकास की प्रबल सम्भवानाएँ हैं। हाल ही के वर्षों में प्रदेश में हाइड्रिड अक्षय ऊर्जा, सौर ऊर्जा, बायोमास ऊर्जा, पवन ऊर्जा, बायोडीजल व पन बिजली के विकास के लिए लगातार प्रयत्न किये जा रहे हैं। जिसके परिणामस्वरूप गत वर्षों में राजस्थान अक्षय ऊर्जा के क्षेत्र में देश के अग्रणी राज्यों में शामिल हो गया है। शुष्क मरुस्थल के लिए जाना जाने वाला प्रदेश 10 गीगावॉट सौर ऊर्जा क्षमता विकसित करने वाला देश का प्रथम राज्य बन गया है। अतः प्रस्तुत शोध पत्र सौर ऊर्जा के केन्द्र के रूप में उभरते हुए प्रदेश में अक्षय ऊर्जा के विकास की सम्भवानाओं तथा नवीकरणीय संसाधनों से ऊर्जा उत्पादन के प्रोत्साहन हेतु किये जा रहे विभिन्न प्रयासों व योजनाओं का विश्लेषणात्मक अध्ययन कर प्रदेश के हरित अर्थव्यवस्था की ओर बढ़ते कदमों पर प्रकाश डालता है।

KEYWORDS:

अक्षय ऊर्जा, हाइड्रिड अक्षय ऊर्जा, सौर ऊर्जा, बायोमास ऊर्जा, बायोडीजल, पवन ऊर्जा, पन बिजली, हरित अर्थव्यवस्था।

प्रस्तावना:—

ऊर्जा मनुष्य के जीवन का आधार है जिससे सभी प्रकार की क्रियाएँ सम्पन्न होती हैं। मानव जीवन के विकास के साथ ऊर्जा की मांग में हुई वृद्धि तथा अनव्यकरणीय संसाधनों के सीमित भण्डार के कारण नवीकरणीय संसाधनों से ऊर्जा का विकास समय की मांग के रूप में उभरा। नवीकरणीय संसाधनों से विकसित ऊर्जा सतत, स्थायी तथा सर्वसुलभ होने के साथ पर्यावरण अनुकूल होती है। इसमें कार्बन उत्सर्जन शून्य होता है एवम् प्रदूषण रहित स्वच्छ वातावरण का निर्माण होता है। भौतिक विज्ञान के अनुसार ऊर्जा को न तो उत्पन्न कर सकते हैं और न ही नष्ट कर सकते हैं। वैज्ञानिक तकनीकी व कौशल के द्वारा इसके स्वरूप में परिवर्तन किया जा सकता है। प्रस्तुत शोध पत्र में अध्ययन क्षेत्र की भौतिक परिस्थितियों को देखा जाए तो प्रदेश में सूर्यताप, पवन, कृषि अवशिष्ट इत्यादि पर्याप्त मात्रा में उपलब्ध हैं जिससे यहाँ अक्षय ऊर्जा के विकास हेतु उपर्युक्त परिस्थितियाँ मौजूद हैं, इन्हीं नवीकरणीय संस्थाओं से वैज्ञानिक तकनीक के द्वारा ऊर्जा का विकास कर प्रदेश में ऊर्जा की अधिष्ठापित उत्पादन क्षमता 10922.90 मेगावाट हो गयी है। आज प्रदेश के प्रत्येक गाँव, प्रत्येक कस्बे तक ऊर्जा की पहुँच हेतु मार्ग खुल गए हैं। परिणामस्वरूप कहा जा सकता है कि नवीकरणीय संसाधनों का प्रदेश में अगर दक्षता के साथ उपयोग किया जाए तो ऊर्जा संकट जैसी समस्या का समाधान हो सकता है और ऊर्जा का क्षेत्र में प्रदेश आत्मनिर्भर बन सकता है।

अध्ययन का उद्देश्य:—

“नवीकरणीय संसाधनों और हरित अर्थव्यवस्था : राजस्थान के संदर्भ में” नामक शोध पत्र में मेरे द्वारा निम्नलिखित उद्देश्य निर्धारित किया गये हैं:—

1. नवीकरणीय संसाधनों से उत्पादित अक्षय ऊर्जा का राजस्थान के परिपेक्ष्य में अध्ययन करना।
2. अक्षय ऊर्जा प्रदूषण के क्षेत्र में एक बेहतर विकल्प है तथा पर्यावरण हितैषी हरित अर्थव्यवस्था का आधार है, को समझना।
3. राज्य में अक्षय ऊर्जा के सम्भावित क्षेत्रों का अध्ययन करना।
4. राज्य में अक्षय ऊर्जा की भविष्य हेतु उपादेयता को समझना।

अक्षय ऊर्जा:—

अक्षय ऊर्जा की प्राप्ति ऊर्जा के ऐसे स्रोतों से होती है जिनका कभी क्षय नहीं होता और न ही यह स्रोत प्रदूषणकारी होते हैं। ऊर्जा एवं पर्यावरण का प्रत्यक्ष सम्बंध है। ऊर्जा के परम्परागत स्रोत यथा कोयला, पेट्रोलियम, प्राकृतिक गैस इत्यादि उपयोग के दौरान कार्बन उत्सर्जन कर पर्यावरण को क्षति पहुँचाते हैं। इन स्रोतों का वितरण भी असमान है जबकि अक्षय ऊर्जा के स्रोत पर्यावरण अनुकूल तथा समान रूप से वितरित होते हैं। इन स्रोतों का नवीनीकरण होता रहता है। जलवायु परिवर्तन तथा

भूमण्डलीय ताप में वृद्धि जैसी समस्याओं के सामधान के रूप में भी अक्षय ऊर्जा एक बेहतर विकल्प है। अक्षय ऊर्जा के महत्व को देखते हुए इसके स्रोतों को प्रोत्साहित किया जाना आवश्यक है। प्रदेश में इन स्रोतों से ऊर्जा उत्पादन तथा इनके विकास को निम्नलिखित बिन्दुओं को समझ सकते हैं।

हाइड्रिड अक्षय ऊर्जा:—

हाइड्रिड अक्षय ऊर्जा एक तरह का नवाचार है। जिससे एक से अधिक अक्षय ऊर्जा स्रोतों को एक दूसरे से एकीकृत कर ऊर्जा का उत्पादन किया जाता है। यह एक विश्वसनीय कम लागत के साथ बढ़ती बिजली की मांग को पूरा करने के लिए उत्पादन अन्तराल को समाप्त कर अक्षय ऊर्जा ग्रिड प्रणाली को स्थिरता प्रदान करती है। प्रदेश के पश्चिमी भाग में सौर ऊर्जा व पवन ऊर्जा के विकास की पर्याप्त सम्भावनाओं को देखते हुए अडानी ग्रीन एनर्जी लिमिटेड द्वारा जैसलमेर में मई 2022 में सौर ऊर्जा व पवन ऊर्जा के संयोजन से 390 मेगावाट की परिचालन क्षमता युक्त हाइड्रिड पॉवर प्लांट स्थापित किया है। यह प्रदेश में हरित ऊर्जा के क्षेत्र में एक महत्वपूर्ण प्रयास है। जो देश की हरित ऊर्जा क्षमता में वृद्धि करेगा।

सौर ऊर्जा:—

राजस्थान अपनी औसत वर्षा की न्यूनता तथा लगभग 325 दिनों से अधिक सौर दिवस जैसी विशेषताओं के कारण एक सौर ऊर्जा सम्पन्न प्रदेश है। यहाँ 6-7 किलोवॉट घण्टे/वर्गमीटर/प्रतिदिन सौर विकिरण की तीव्रता देखने को मिलती है। अपनी जलवायवीय विशेषताओं के कारण राज्य निवेशकों के लिए सौर क्षेत्र में निवेश करने हेतु आकर्षण का केन्द्र है। इसलिए राज्य सरकार द्वारा सौर ऊर्जा के क्षेत्र में निवेशकों के लिए दिशानिर्देश हेतु राजस्थान सौर ऊर्जा नीति, 2019 जारी की गई है। इसी दिशा में राज्य सरकार द्वारा लगभग 3 लाख करोड़ के निवेश से लगभग 70080 मेगावॉट क्षमता की विभिन्न परियोजनाओं एवं सौर पार्कों की स्थापना को प्रोत्साहित करते हुए ग्रीनको, अडानी इत्यादि से विभिन्न पैकेज स्वीकृत किये हैं।

प्रदेश में चार चरणों में भड़ला (जोधपुर) सोलर पार्क की स्थापना हुई है। यह सोलर पार्क अपनी 2245 मेगावाट परिचालन क्षमता के कारण विश्व का सबसे बड़ा सोलर पार्क है। भारत सरकार के नवीन और नवीनीकरणीय ऊर्जा मंत्रालय की ओर से सोलर पार्क योजना के तहत 1450 मेगावाट क्षमता वाला सोलर पार्क पूगल (बीकानेर) में, 925 मेगावाट क्षमता वाला सोलर पार्क नोख (जैसलमेर) में, 750 मेगावाट क्षमता का फलौदी-पोकरण (जैसलमेर) में, 1500 मेगावाट क्षमता का फतेहगढ़ फेज 1 बी सोलर पार्क राज्य में निर्माणाधीन है।

सौर ऊर्जा के क्षेत्र में एक और महत्वाकांक्षी परियोजना “रूफ टॉप सोलर पावर परियोजना” भारत सरकार के 30 प्रतिशत अनुदान से राजस्थान अक्षय ऊर्जा निगम

द्वारा विकसित की गई है। जिसका वर्तमान में राज्य वितरण निगमों द्वारा संचालन किया जा रहा है। इससे घरों की छतों पर सोलर पैनल लगा पर्यावरण हितैषी बिजली का उत्पादन किया जाता है।

केन्द्र सरकार की पी.एम. कुसुम योजना के कम्पोनेंट-ए का राज्य में सफल क्रियान्वन कर राजस्थान अक्षय ऊर्जा निगम द्वारा प्रदेश में 623 आवेदकों का चयन किया गया है। इसके तहत प्रदेश में अब तक 62.5 मेगावाट क्षमता का विकास हो चुका है।

बायोमास ऊर्जा:-

जीवित जीवों, पादपों एवं कृषि अवशिष्ट से प्राप्त ऊर्जा को बायोमास ऊर्जा में परिवर्तित किया जाता है। इससे विद्युत उत्पादन तथा ईंधन हेतु उपयोग में लिया जाता है। प्रदेश में बायोमास ऊर्जा का उत्पादन सरसों की तुड़ी, चावली की भूसी तथा विलायती बबूल से किया जाता है। चूंकि कृषि अवशिष्ट बायोमास ऊर्जा का प्रमुख स्रोत है। इसी कारण पदमपुरा (श्रीगंगानगर) में स्थापित राज्य का प्रथम बायोमास संयंत्र भी कृषि अवशिष्ट पर ही आधारित था। राज्य में अब तक कुल 13 बायोमास संयंत्र स्थापित किये जा चुके हैं। जिसमें नवीन आंकड़ों के अनुसार प्रदेश में 101.95 मेगावाट विद्युत ऊर्जा का उत्पादन किया जा रहा है। बायोमास ऊर्जा की सम्भावनाओं को देखते हुए 119.40 मेगावाट क्षमता का बायोमास संयंत्रों की स्थापना का कार्य प्रगति पर है।

बायोडीजल:-

जीवाणु ईंधन एक अनव्यकरणीय संसाधन है, जिसके महत्व तथा उपयोग से आज हर कोई परिचित है। ऐसा अनुमान है कि जिस तरह से इसका अंधाधुंध उपयोग हो रहा है यह शीघ्र ही समाप्त हो जाएगा। इसलिए इसके विकल्प के रूप में एक ऐसे विकल्प प्रकार के ईंधन निर्माण में वैज्ञानिकों ने सफलता हासिल की है, जो पर्यावरण के अनुकूल है। यह ईंधन सोयाबीन, सूरजमुखी, सरसों, मक्का तथा जोजोबा इत्यादि विभिन्न पादपों से प्राप्त होता है। इसलिए इसे बायोडीजल कहा जाता है। सबसे उच्च गुणवत्ता वाले बायोडीजल की प्राप्ति रतनजोत (जेट्रोफा) के पादप से होती है। रतनजोत उष्णकटीबंधीय जलवायु का एक झाड़ीनुमा पादप है। अनुकूल जलवायवीय दशाओं के कारण प्रदेश में इसकी खेती सीकर, चुरू, चित्तौड़गढ़, उदयपुर, बांसवाड़ा व कोटा में की जाती है। बायोडीजल उत्पादन हेतु प्रोसेसिंग प्लांट भीलवाड़ा तथा फूलैरा में स्थापित हैं जहां से 50 टन प्रतिदिन बायोडीजल का उत्पादन किया जाता है। इसके अलावा राजस्थान स्टेट मांडिस एण्ड मिनरल्स लिमिटेड द्वारा रतनजोत के बीजों से तेल उत्पादन हेतु झामर कोटड़ा (उदयपुर) में बायोडीजल प्लांट लगाया गया है। प्रदेश में जैव ईंधन को बढ़ावा देने हेतु बायोफ्यूल मिशन की स्थापना की गई है। इसी दिशा में राजस्थान बायोफ्यूल नीति 2018 लागू करने वाला देश का प्रथम राज्य बन गया है।

बायोडीजल पैट्रोलियम ईंधन की तुलना में एक बेहतर विलायक है। यह प्रदूषण जनित तथा श्वसन तंत्र से सम्बंधी बीमारियों में कमी लाने व ग्रामीण एवं जनजातीय क्षेत्रों में रोजगार के अवसर उपलब्ध कराने में सक्षम है। रतनजोत के पौधों को भविष्य के ईंधन के रूप में देखा जाता है। जिससे बायोडीजल के आयात में कमी आयेगी तथा जीवाणु ईंधन की बढ़ती कीमतों पर नियंत्रण होगा।

पवन ऊर्जा:-

पवन ऊर्जा एक टिकाऊ नवीकरणीय ऊर्जा है। इसको विकसित कर पवन चकियों एवं पवन पम्पों का संचालन किया जाता था। परन्तु आज पवन ऊर्जा का अधिकतम उपयोग बिजली उत्पादन में किया जाता है। पवन ऊर्जा के विकास हेतु स्थापित पवन टर्बाइनों को बहुत ही कम स्थान की आवश्यकता होती है। यह बहुत ही कम लागत के साथ विकसित पर्यावरणीय अनुकूल ऊर्जा है।

प्रदेश में एन.आई.डब्ल्यूई (राष्ट्रीय पवन ऊर्जा संस्थान) द्वारा किये गये सर्वेक्षण के तहत ऐसा अनुमान लगाया गया है कि तकरीबन 120 मी. की ऊंचाई पर पवन ऊर्जा की अनुमानित क्षमता लगभग 1,27,750 मेगावाट है। प्रदेश में पवन ऊर्जा के विकास के लिए अनुकूल पर्यावरणीय परिस्थितियों को देखते हुए इसके विकास हेतु ऊर्जा विभाग, राजस्थान सरकार द्वारा 18 दिसम्बर 2019 को राजस्थान पवन एवं हाइड्रिड ऊर्जा नीति 2019 जारी की गई है। प्रदेश में अब तक 4442.145 मेगावाट परिचालन क्षमता युक्त पवन ऊर्जा संयंत्र संचालित है।

पन बिजली:-

पानी के गुरुत्वाकर्षण बल को विद्युत ऊर्जा में विकसित करना ही पन बिजली है। पन बिजली द्वारा विद्युत उत्पादन के लिए बांध बनाए जाते हैं। प्रदेश में पड़ोसी राज्यों के साथ संयुक्त जल विद्युत परियोजनाएं संचालित हैं। राजस्थान की पंजाब और

हरियाणा के साथ संयुक्त परियोजना भाखड़ा-नांगल परियोजना के तहत विद्युत उत्पादन का 15.22 प्रतिशत भाग अर्थात् लगभग 227 मेगावाट राजस्थान को प्राप्त है। इसी तरह रावी-व्यास परियोजना भी राजस्थान की पंजाब-हरियाणा के साथ की संयुक्त परियोजना है, जिसके तहत प्रदेश को 422.64 मेगावाट विद्युत की प्राप्ति होती है। गुजरात व राजस्थान की संयुक्त परियोजना माही बजाज सागर परियोजना में उत्पादित विद्युत का 100 प्रतिशत भाग राज्य को ही प्राप्त है। मध्यप्रदेश के साथ राज्य की चम्बल परियोजना प्रदेश की सबसे बड़ी जल विद्युत परियोजना है, जिसका 50 प्रतिशत भाग राज्य को प्राप्त है। इसी तरह प्रदेश में लघुपन बिजली परियोजनाएं भी संचालित हैं। प्रतापगढ़ जिले में जाखम बांध पर लघुपन बिजली परियोजना स्थापित की गई है। प्रदेश में पन बिजली के विकास हेतु दक्षिण-पूर्व में उपयुक्त जलवायु है। यहां भविष्य में पन बिजली उत्पादन हेतु उच्च क्षमताएं एवं सम्भावनाएं हैं।

हरित अर्थव्यवस्था राजस्थान के परिपक्ष्य में:-

हरित अर्थव्यवस्था उत्पादन व उपभोग के एक ऐसे प्रारूप के विकास से सम्बन्धित है जो पर्यावरण के लिए हानिकारक न हो तथा पारिस्थितिकी को भी नुकसान न पहुंचाए। हरित अर्थव्यवस्था का मूल उद्देश्य पृथ्वी के संरक्षण हेतु कार्बन उत्सर्जन में कमी करने एवं प्राकृतिक संसाधनों के संरक्षण हेतु जागरूकता लाना है। हरित अर्थव्यवस्था सार्वजनिक एवं निजी निवेश के माध्यम से आर्थिक क्रियाओं में बढ़ोतरी कर रोजगार के अवसरों में वृद्धि करती है तथा जैव विविधता व परितन्त्र को भी संरक्षण करती है। प्रदेश में हरित अर्थव्यवस्था के क्षेत्र में अपने कदम बढ़ा रहा है। राज्य सरकार निजी निवेश हेतु उचित परिस्थितियां उपलब्ध करवा देना में नवीकरणीय संसाधनों से हरित ऊर्जा का विकास कर रही है। इस दिशा में प्रदेश में विभिन्न योजनाएं संचालित हैं तथा विभिन्न परियोजनाओं का निर्माण एवं क्रियान्वन का कार्य प्रगति पर है।

निष्कर्ष:-

प्रस्तुत शोध पत्र में प्रदेश में हरित ऊर्जा के क्षेत्र में नवीकरणीय संसाधनों से विकसित ऊर्जा तथा निर्माणाधीन परियोजनाओं का अध्ययन कर ऊर्जा सम्भावित क्षेत्रों का भी अध्ययन किया गया। हरित ऊर्जा प्रदूषण जैसी गम्भीर समस्या से निपटने हेतु तथा बहुत ही सरती दर पर ऊर्जा की मांग की पूर्ति के लिए भी अच्छा विकल्प है। राज्य सरकार इलेक्ट्रिकल वाहन, हाइब्रिड अक्षय ऊर्जा, बायोमास ऊर्जा, सौर ऊर्जा, पवन ऊर्जा इत्यादि के विकास हेतु निवेश में बढ़ोतरी कर रही है। गाँवों में किसानों को सिंचाई हेतु भी सौर ऊर्जा के माध्यम से बहुत सरती दर पर बिजली उपलब्ध करवा रही है। प्रदेश में सौर ऊर्जा के क्षेत्र में तो देश-विदेश के निवेशकों के लिए पसंदीदा क्षेत्र बन गया है जो कि राज्य ही नहीं बल्कि पूरे भारत देश के लिए एक अच्छा संदेश है। क्योंकि वर्तमान परिस्थितियों को देखते हुए यह जरूरी हो गया है कि ऊर्जा उत्पादन हेतु ऊर्जा के असीमित स्रोतों की ओर ध्यान देना तथा ग्रीन एनर्जी-क्लीन एनर्जी को विकसित करना। गौरतलब है कि प्रदेश में ग्रीन एनर्जी की अपार सम्भावनाओं के होते हुए भी अभी इनका आंशिक विकास ही हुआ है। इसके सतत् विकास हेतु निरन्तर प्रयास की जरूरत है।

REFERENCES

1. भल्ला, एल.आर (2014), "राजस्थान का भूगोल", कुलदीप पब्लिकेशन हाउस जयपुर।
2. मिश्र वी.के (2007), "सौर ऊर्जा", ग्रन्थ अकादमी, नई दिल्ली।
3. आर्थिक समीक्षा (2021-22), आर्थिक एवं सांख्यिकी निदेशालय, राजस्थान।
4. आर्थिक समीक्षा (2022-23), आर्थिक एवं सांख्यिकी निदेशालय, राजस्थान।
5. Daliga, Dr. S. (2014) Renewable energy.
6. <http://www.dristiias.com>, "हरित ऊर्जा ट्राजी" : आव्यकता और महत्व।



INNOVATIVE STUDY OF PHOTOGALVANIC CELL FOR SOLAR ENERGY CONVERSION AND STORAGE

MOHAN LAL

SOLAR RESEARCH ENERGY LABORATORY, DEPARTMENT OF CHEMISTRY, FACULTY OF SCIENCE, NEW CAMPUS, JAI NARAIN VYAS UNIVERSITY, JODHPUR, (RAJASTHAN) 342001, INDIA

JAGRATI MEENA

SOLAR RESEARCH ENERGY LABORATORY, DEPARTMENT OF CHEMISTRY, FACULTY OF SCIENCE, NEW CAMPUS, JAI NARAIN VYAS UNIVERSITY, JODHPUR, (RAJASTHAN) 342001, INDIA

ARCHANA SHARMA

SOLAR RESEARCH ENERGY LABORATORY, DEPARTMENT OF CHEMISTRY, FACULTY OF SCIENCE, NEW CAMPUS, JAI NARAIN VYAS UNIVERSITY, JODHPUR, (RAJASTHAN) 342001, INDIA

KM GANGOTRI

SOLAR RESEARCH ENERGY LABORATORY, DEPARTMENT OF CHEMISTRY, FACULTY OF SCIENCE, NEW CAMPUS, JAI NARAIN VYAS UNIVERSITY, JODHPUR, (RAJASTHAN) 342001, INDIA

ABSTRACT:

The scientific community is compelled so is search out the renewable source of energy to feed the whole world with non-polluting nature and commercially viability. Thus, the solar energy is the best option to fulfill the energy demand. World will have to significantly reduce its coal and oil use to accelerate climate action. A huge proportion of world electricity generation comes from thermal power, most of which is coal based. The non-renewable sources of energy have their own limitations along with hazardous processes involved and pollution creating. The consumption of fossil fuels like wood coal kerosene etc. is so rapid is reaching towards their complete depletion. Solar energy is already becoming cost competitive with solar power and better storage capacity, the day is not far when renewable energy will compete with coal-based power. However, over the next few decades. Currently, about more than half of world energy demand is met by two fossil fuels -coal and oil. Actual plan of research work was proposed for systematic investigating in the field of photo galvanic cell for solar energy transformation. It was necessary and proposed to carry out experimental work under the solar parameters. Detailed literature survey about different photo galvanic cells have been used in solar transformation for best results. Methods: A detailed reaction mechanism for the proposed solar cell for generating of photocurrent and photocurrent has been studied. PG Cells were studied for solar energy transformation system. Findings: PG Cells were studied using different parameters via photocurrent, Photo potential, conversion efficiency, fill factor and cell performance. The above values are as following 245.0 μ A, 1267.0 mV, 0.6875%, 0.4972 and 129.0 minutes. Electrical output of the cell has also been observed for Dye based photo galvanic cell. Novelty: The photo galvanic is emerging field of research and manuscript contains substantial electrical output, conversion efficiency and storage capacity of developed photo galvanic cell with special attention to better performance and reduces the cost of the photo galvanic cell for its commercial viability.

KEYWORDS:

RENEWABLE ENERGY, INNOVATION, PHOTOCURRENT, PHOTOPOTENTIAL, FILL FACTOR, CONVERSION EFFICIENCY.

INTRODUCTION

The promising photochemical reactions like photosynthesis and photolysis of water are the basis of solar energy contents. The non-renewable energy sources have their own limitations along with hazardous processes involved and pollution creating environment. Global scientific community is compelled to search out the renewable source of energy to feed the whole world with non-polluting nature and commercially viability. Thus, the solar energy is the best option to fulfil the energy demand. The promising photochemical reactions like photosynthesis and photolysis of water are the basis for

solar energy contents. Rideal and Williams [1] were pioneers to observed photogalvanics. Whereas, Rabinowitch [2,3] has systematically investigated the endergonic photochemical reaction between iron this online system and have observed this photochemical reaction thoroughly and its suitability for trapping solar energy as source renewable energy. It was also supported by the research work of Suda et al. [4], Murthy et al [5] and Bayer et al. [6]. Hallet [7], has developed some photo galvanic cell with semiconductor. The optimum results have been mentioned by Wildes et al. [8], Dixit and Mackay

[9] Albery and Archer [10]. photo electrochemical process have been observed by Memming [11] and Hamdi and Aliwi [12] whethron some effiecnnet photo galvanic systems have been reported by Ameta et al. [13, 14], Gangotri et al. [15], Lal [16], Gangotri and Meena [17], Madhwani et al.[18]using different reductant and photo sensitizers in PG cells.In orderto enhance the electrical output PG cell Genwa and Genwa [19], Genwa et al.[20]and Gangotri and Gangotri[21] have also reported some efficient systems using surfactants. Gangotir and lal and Lal and gangotri have determined the photo galvanic effect in PG cell using mixed surfactants and reactants and photo sensitizer whereas chnadr et al have observed the role of photo sensitizers and a reductant for generation of electrical energy in pg cell and bhimwal et al. have compare the research output of various sugar cell as reducing agents. Mao S, et al. [26], Thareja Pet al.[27],Molina-Bolivar JA, et al [28], Lee NM and Lee BH[29] have also observed mixed micellization in PG cells to observed the electrical output as well as storage capacity. The group of scientists are paying their attention enhance the results by selecting the cheaper compounds in PGS for their commercial viability. They have used different dye, surfactant and reductant in the solar system but no attention paid to use of mixed surfactant dye reductant combination to enhance the electrical output, therefore, the present work was undertaken.

EXPERIMENTAL METHOD

Laboratory work for solutions Preparation: During the experiment stage, the solutions of D-xylose (reductant), dye-methylene blue (photo sensitizer), Brij-35+NaLS (mixed surfactants), and sodium hydroxide, were prepared by using double distilled water. The total volume for the experimental set was 25.00 ml during experiments. The prepared solution of NaOH was standardized by oxalic acid in each PGS. All the solutions are kept in an amber color flask to protect them from sunlight.

Methodology for set -up of the PGS: First of all, we designed a photo galvanic system (figure 1) having fabricated H-shape glass tubes. The designed photo galvanic system was two arms. During the experiment, both ends of electrodes were connected through the resistance key, carbon pot, micro-ammeter and Digital pH meter for complete electrical circuit for measurement of the potential and current of the PGS. Saturated calomel electrode was dipped in one arm and Platinum electrode was dipped in another arm. One arm of the H tube was completely blackened except for the window to absorb light. Another arm of the H tube was totally blackened. The known solutions of two different surfactants Brij-35+NaLS (mixed surfactants), D-xylose (reductant), methylene blue (photo sensitizer), sodium hydroxide and double distilled water were filled in H tube. During experiments, 200 W electric bulb (W Filament containing) and water filter were used for light sources and to cut off IR radiations for experiment setup, respectively. Total volume was 25.00 ml for each set during the experiment method. The methodology figure for the PGS is given in figure 1.

RESULTS AND DISCUSSION

Variation of Dye-Methylene blue (phot osensitizer) concentration on the PGS: It was observed that when we increase the concentration of dye MB, the electrical output also increases and attains maximum value on particular concentration value and then decreases in D-Xylose+MB+Brij-35+NaLS system. On a lower concentration range of methylene blue, the low number of Dye-Methylene blue limits the absorption of the light source, so the electrical output is low. In contrast, at a higher concentration range of methylene blue, there are so many molecules present that the desired light source does not reach the molecule near the electrode. At intermediate range of methylene blue concentration, there are optimum molecules present that the optimum light source does reach the molecule near the electrode and maximum photo potential (1267.00 mV), maximum photocurrent (245.00 mA) and maximum power (152.14 μ W) were obtained. Table 1 and graphical figure 2 shows the variation of photo sensitizer concentration in the D-Xylose+MB +Brij-35+NaLS system.

Variation of D-xylose (Reductant) concentration on the PGS: It was observed that when we increase the concentration of reductant (D-xylose), the electrical output also increases and attains maximum value on particular concentration value and then decreases in D-Xylose+MB+Brij-35+NaLS system. On a lower concentration range of Reductant, a smaller number of reductant molecules being available for electron donation to methylene blue to form the cationic form. In contrast, at a higher concentration range of Reductant, there are a larger number of reductant molecules being available for electron donation to methylene blue to form the cationic form which hinders the methylene blue. At intermediate range of Reductant concentration, there are optimum number of reductant molecule present that form favorable condition for semi or leuco form of dye molecules and maximum photo potential (1278 mV), maximum photocurrent (265 mA) and maximum power (173.60 μ W) were obtained. Table 1 and graphical figure 2 shows the variation of xylose concentration on the D-Xylose+MB + Brij-35+NaLS system.

Variation of (NaLS+Brij-35) concentration on the PGS: The electric power of the PG cell havingD-Xylose+MB+Brij-35+NaLSsystem was increased on increasing the concentration of Brij-35 keeping NaLS concentration constant (around its CMC value) and reached at optimum position and decreased on further increase the concentration of Brij-35. Then the concentration of NaLS was increased keeping Brij-35 concentration constant till it reached at optimum position and decreased on further change in concentration of NaLS. On a lower concentration range of both surfactants, and less ability to solubilize the molecules for electron transfer process in hydrophilic hydrophobic interaction. In contrast, at a higher concentration range of both surfactants, and there are a larger number of surfactant molecules being available for electron transfer

process in hydrophilic hydrophobic interaction which may reduce electron transfer. At the intermediate range of surfactant concentration, and, there are significant effects on electrical output for the photo galvanic system. This is because surfactant can help to separate photoproducts through hydrophilic-hydrophobic interaction of the micelles interface. The Table 1 and graphical figure 3 show the variation of mixed surfactant in D-Xylose+MB+Brij-35+NaLS system.

Variation of pH on the PGS: It was observed that when we increase the pH, the electrical output also increases and attains a maximum value of particular value (pH=13.00 at max.) and then decreases in D-Xylose+MB+Brij-35+NaLS system. Table I shows the variation of pH on D-Xylose+MB+Brij-35+NaLS system.

Variation of diffusion length on the PGS: The current parameter of the cell (i_{max} , i_{eq}) and initial rate of generation of photocurrent of PG cell having D-Xylose+MB+Brij-35+NaLS system was observed with change in diffusion lengths (distance between two electrodes). It was found that with an increase in diffusion length maximum photocurrent (i_{max}) and rate ($\mu A \text{ min}^{-1}$) go on increasing but the equilibrium photocurrent (i_{eq}) shows negligible small decreasing trends. So, virtually it may be considered unaffected by the change in diffusion length. On a lowest diffusion length (35mm), the lowest number of dye molecules limits the absorption of the light source, so the photocurrent is obtained as minimum value (262.00 mA).

Variation of electrode area of the cell on the PGS: The current parameter - maximum photocurrent (i_{max}), equilibrium photocurrent (i_{eq}) of PG cell having D-Xylose+MB+Brij-35+NaLSsystem was observed that these were regular increase in maximum photocurrent but

$$\text{Fill factor } (\eta) = \frac{V_{pp} \times i_{pp}}{V_{oc} \times i_{sc}} \quad \dots\dots (1) \text{ power point (pp)} = V_{pp} \times i_{pp}$$

Where

V_{pp} is value of potential

i_{pp} is current at power point

V_{oc} is represent open circuit voltage

i_{sc} is short circuit current

The value of fill factor of cell (η) = 0.4972 was observed and the power point of cell (pp) = 60.16 μW was obtained for the PGS. Graphical Figure 4 shows the power point of cell in D-Xylose+MB+ Brij-35+NaLS System.

Cell performance and conversion efficiency on the PGS: The D-Xylose+MB+Brij-35+NaLSsystem was terminated the light source at the value of photocurrent so

$$\text{Conversion efficiency} = \frac{V_{pp} \times i_{pp}}{A \ 10.4mWcm^{-2}} \times 100\% \quad \dots\dots (2)$$

Where V_{pp} , is photopotential at power point of cell,

i_{pp} is Photocurrent at power point of cell,

equilibrium photocurrent was almost independent on increase in electrode area rather affected in reverse direction. Table 3 shows the variation of electrode area on D-Xylose+MB+Brij-35+NaLSsystem.

Variation of Mixed Surfactant (NaLS+Brij-35) for solar radiation transformation and potential: The electric power of the PG cell having D-Xylose +MB + Brij-35+NaLS system was changed on changing the concentration of Brij-35 keeping NaLS concentration constant (around its CMC value) and reached a maximum value and decreased on further increase the concentration of Brij-35. Then the concentration of NaLS was increased keeping Brij-35 concentration constant till it reached a maximum value and decreased on further increase in concentration of NaLS. The Table 4 and graphical Figure 4 and 5 show the variation of mixed surfactant in D-Xylose +MB +Brij-35+NaLS system.

i-V characteristics (current-voltage) of the PGS: In the PG cell having D-Xylose+MB+Brij-35+NaLS system, the short circuit current ' i_{sc} ' is measured by micro ammeter keeping the circuit closed and open circuit voltage V_{oc} by digital pH meter keeping other circuit open. it is observed that the highest value of photo potential V_{pp} and photocurrent were measured by applying an eternal load with the help of carbon pot (log 470 K) connected in the circuit. The highest value of potential obeyed in the circuit is known as potential at power point corresponding to highest value of short circuit current is known as current at power point i_{pp} . These four vales (i_{sc} , V_{oc} , V_{pp} and i_{pp} .) were used in formula in one the determine the fill factor of PGS and formula to determine the power point of pgs. The fill-factor was calculated using the following formula:

observed at power point of the PG cell by applying electric load from light source. The time was recorded at which the photogalvanic cell has reached to a half the value of the power in off light mode. The performance of the cell was determined in term of $t_{1/2}$. The determined value was 120.00 min. The Table IV and graphical Figure 3 show the performance of the PG cell in D-Xylose+MB+ Brij-35+NaLS System.

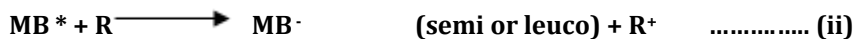
Determination of PG cell performance is shown by figure-5 in term of $t_{1/2}$ and its observed value was 120.00 minutes in dark. PG cell conversion efficiency was determined as 0.5688 % using the following formula:

A is used electrode area of cell.

MECHANISM: Experimentally the following chemical

transformation takes place, indicate the flow of electron in current.

Illuminate Chamber: MB molecules (photosensitizer) were getting excited and excite MB accept electron and transfer to xylose

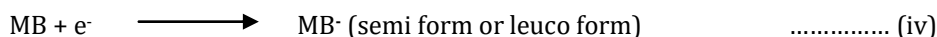


Photochemical reaction at platinum electrode: The semi or leuco form of MB (dye) loses an electron to electrode and converts into original dye molecule.



Photochemical reaction at dark Chamber: The following chemical transformation takes place.

At counter electrode: Methylene Blue molecules (photo sensitizer) gain an electron from electrode and converts into semi or leuco form of dye molecule.



And finally, methylene blue (leuco/semi form) and the reductant (oxidized form), combine to give original methylene blue (MB) dye and Xylose reductant(R) molecules and the whole photochemical cyclic process continues.



Where

MB is Methylene blue (dye)

MB* is excited form of methylene blue

MB⁻ is semi or leuco form of methylene blue,

R is Reductant (xylose)

R⁺ is oxidized form of the reductant

CONCLUSION

On the basis of the observed results of the PGS having D-Xylose+MB+Brij-35+NaLS system, we have observed that the mixed surfactants have not only enhanced the electrical output of cell but also enhance the energy conversion of the cell for PGS. These PGS played main role in reduction in their cost to make commercial viability by selecting the proper redox couple, with respect to photo-storage and mixture of surfactants. PG Cells were studied using different parameters via photocurrent, Photopotential, conversion efficiency, fill factor and cell performance. The above values are as following 245.0 μA, 1267.0 mV, 0.6875%, 0.4972 and 129.0 minutes. Electrical output of the cell has also been observed for Dye based photogalvanic cell. Novelty: The photogalvanic is emerging field of research and manuscript contains substantial electrical output, conversion efficiency and storage capacity of developed photogalvanic cell with special

attention to better performance and reduces the cost of the photo galvanic cell for its commercial viability.

NOMENCLATURE

i_{eq}= photocurrent at equilibrium

i_{sc}=short circuit current

i_{pp}=photocurrent at power point

mV=millivolt

ml=milliliter

M =molarity

t_{1/2}=storage capacity of cell

pp=power point

V_{pp}=photopotential at power point

V_{oc}=open circuit voltage

mA=microampere

η=fill factor

mW=microwatt

PGS = photogalvanic system

PG=photogalvanic cell

i_{max}=maximum photocurrent

MB= Methylene blue

NaLS =Sodium lauryl sulphate

TABLE- 1. PHOTOGALVANIC OUTPUTS

Parameters	Photo potential (mV)	Photocurrent (μA)	Power (μW)
[Methylene blue] ×10 ⁻⁵ M			
6.00	1267.00	245.00	152.14
[D-Xylose] × 10 ⁻³ M			

5.11	1267.00	245.00	152.14
[NaLS] × 10 ⁻³ M			
8.45	1267.00	245.00	152.14
[Brij-35] × 10 ⁻⁴ M			
9.10	1267.00	245.00	152.14
pH			
11.790	1267.00	245.00	152.14

TABLE- 2. EFFECT OF DIFFUSION LENGTH ON THE SYSTEM

Diffusion length (mm)	Maximum photocurrent <i>i</i> _{max} (μA)	Equilibrium photocurrent <i>i</i> _{eq} (μA)	Rate of initial generation of photocurrent (μA min ⁻¹)
35.00	1250.00	235.00	6.28
40.00	1256.00	250.00	6.39
45.00	1278.00	265.00	6.70
50.00	1265.00	200.00	5.64
55.00	1250.00	195.00	5.78

TABLE- 3. EFFECT OF ELECTRODE AREA ON THE SYSTEM

Methylene blue-D-Xylose-NaLS+Brij-35 System	Electrode Area (cm ²)				
	0.80	0.95	1.10	1.15	1.20
Maximum photocurrent <i>i</i> _{max} (μA)	261	263	265	271	281
Equilibrium photocurrent <i>i</i> _{eq} (μA)	242	231	235	230	226

TABLE 4. EFFECT OF MIXED SURFACTANTS [NALS+BRIJ-35] FOR PGS

S. No.	Parameters	Single surfactant NaLS	Mixed surfactant NaLS+Brij-35
1.	Open Circuit Voltage (V _{oc})	870.0 mV	1278.0 mV
2.	Photopotential (ΔV)	635.0 mV	1267.0 mV
3.	Maximum Photocurrent (<i>i</i> _{max})	175.0μA	265.0μA
4.	Short Circuit Current (<i>i</i> _{sc})	90.0μA	230.0μA
5.	Equilibrium Photocurrent (<i>i</i> _{eq})	90.0μA	245.0μA
6.	Current at Power Point (<i>i</i> _{pp})	55.0μA	126.0μA
7.	Potential at Power Point (V _{pp})	595.0 mV	455.0 mV
8.	Power at Power Point (PP)	32.72mW	60.16 mW
9.	Fill factor (η)	0.3630	0.4972
10.	Conversion Efficiency (%)	0.3100%	0.6875%
11.	<i>t</i> _{1/2}	55.0 min	129.0min
12.	Charging Time (min.)	55.0 min	104.0 min

As per the results so observed, shown in table 4, the efficiency of the pg cell mixed surfactant has tremendously

increased with special reference to current parameters, power, conversion efficiency and *t*_{1/2} value (the storage

capacity) almost the doubled of the charging time of the cell.

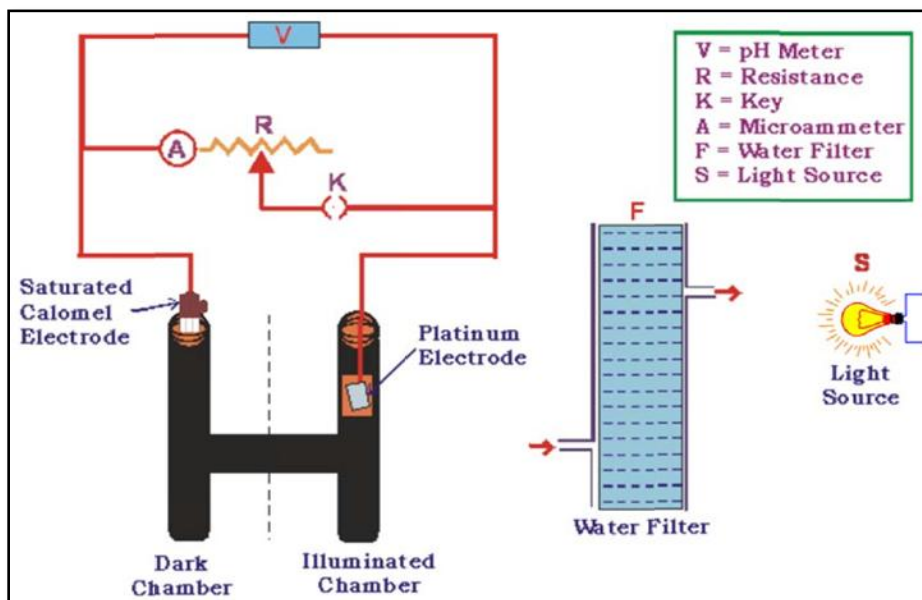


FIGURE 1. METHODOLOGY SET UP OF P

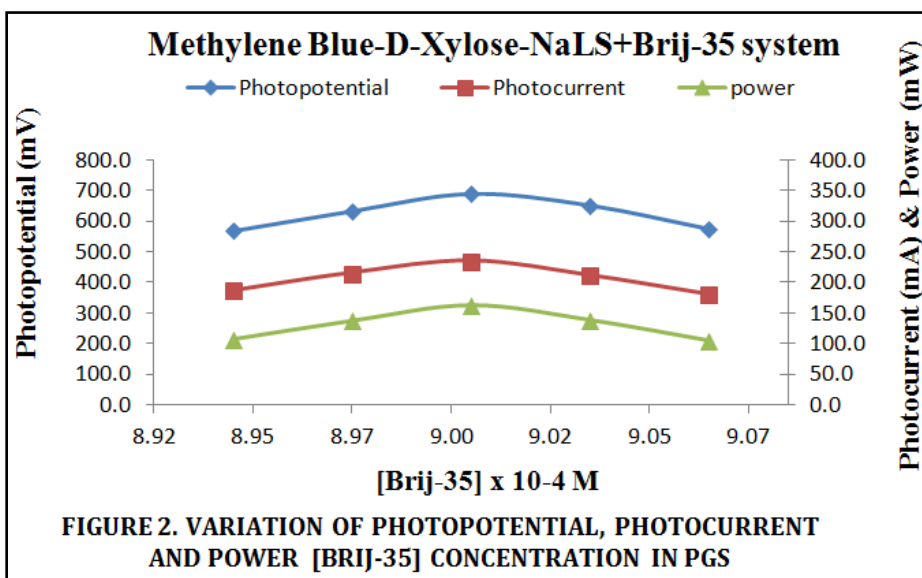


FIGURE 2. VARIATION OF PHOTOPOTENTIAL, PHOTOCURRENT AND POWER [BRIJ-35] CONCENTRATION IN PGS

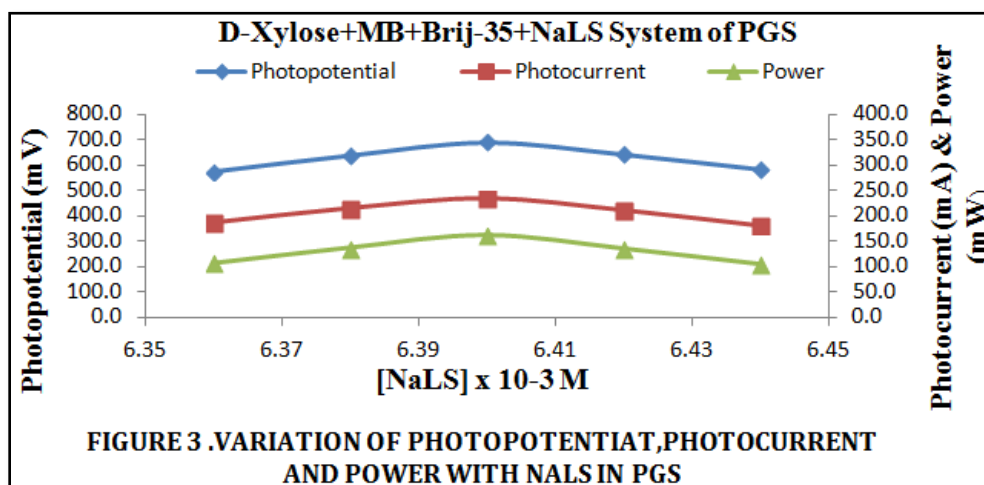
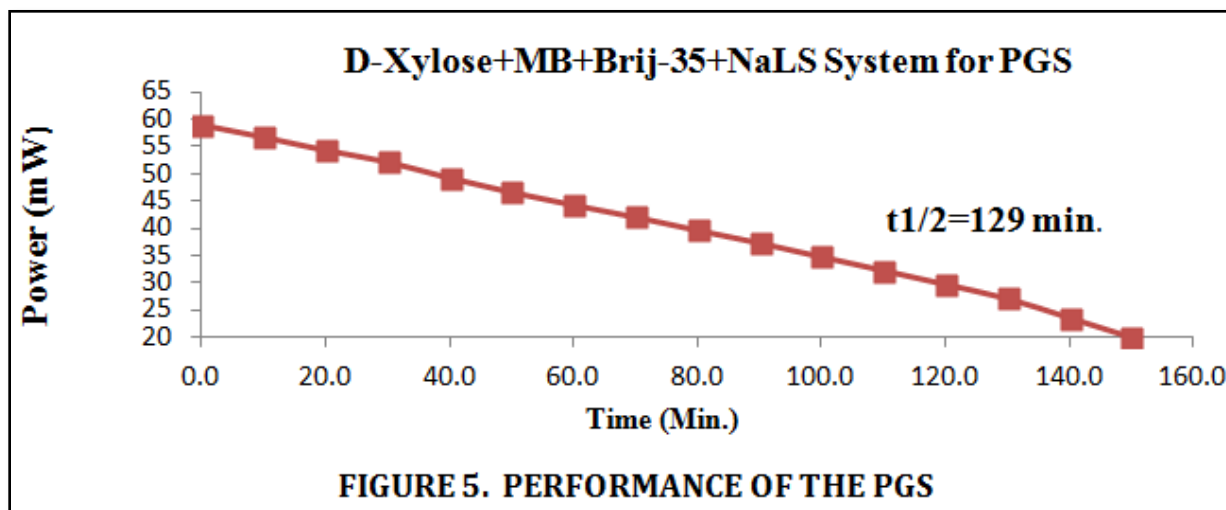
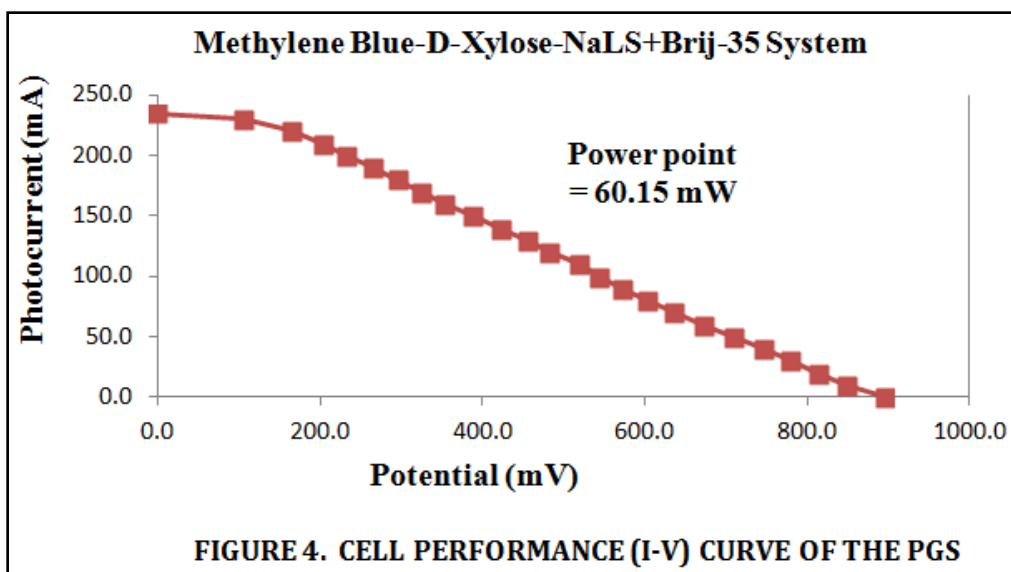


FIGURE 3. VARIATION OF PHOTOPOTENTIAL, PHOTOCURRENT AND POWER WITH NALS IN PGS



ACKNOWLEDGEMENTS

Authors are thankful to Head, department of chemistry, JNV University, Jodhpur Rajasthan, INDIA for research laboratory facilities and Dr. L Mohan (one of the authors) is thankful to Dr Shravan Kumar, for publication of work.

REFERENCES

1. Rideal EK, Williams EG. The action of light on the ferrous ferric iodine iodide equilibrium. Journal of Chemical Society Transactions 1925; **127**:258-269.

2. Rabinowitch E. The photogalvanic effect I. The photochemical properties of the thionine-iron system. The Journal of Physical Chemistry 1940; **8**:551-559.

3. Rabinowitch E. The photogalvanic effect II. The photogalvanic properties of the thionine-iron system. The Journal of Physical Chemistry 1940; **8**:560-566.

4. Suda Y, Shimoura Y, Sakata T, Tsubomura H. Photogalvanic effect in the thionine iron system at semiconductor electrodes. The Journal of Physical Chemistry 1978; **82**:268-271.

5. Murthy ASN, Dak AC, Reddy KS. Photogalvanic effect in riboflavin ethylenediaminetetraacetic acid system. International Journal of Energy Research 1980; **4**:339-343.

6. Bayer LS, Eroglu I, Turker L. Photogalvanic effect in aqueous methylene blue-nickel mesh system: conversion of light into electricity. *International Journal of Energy Research* 2001; **25**:207-222.

7. Hall DE, Clark WDK, Eckert JA, Lichtin NN, Wildes PD. A photogalvanic cell with semiconductor anode. *The American Ceramic Society Bulletin* 1977; **56**:408-411.

8. Wildes PD, Hobart DR, Lichtin NN, Hall DE, Eckert JA. Sensitization of an iron-thiazine photogalvanic cell to the blue: an improved match to the insulation's spectrum. *Solar Energy* 1977; **19**:567-570.

9. Dixit NS, Mackay RA. Microemulsions as photogalvanic cell fluids. The surfactant thionine-iron (II) system. *The Journal of Physical Chemistry* 1982; **86**:4593-4598.

10. Albery WJ, Archer MD. Optimum efficiency of photogalvanic cells for solar energy conversion. *Nature* 1977; **270**:399-402.

11. Memming R. Solar energy conversion by photoelectrochemical processes. *Electrochimica Acta* 1980; **25**:77-88.

12. Hamdi ST, Aliwi SM. The photogalvanic effect of Fe (II)- β -diketonate/thionine system in aqueous acetonitrile. *Monatshefte für Chemie/Chemical Monthly* 1996; **127**:339-346.

13. Ameta SC, Khamesra S, Lodha S, Ameta R. Use of the thionine-EDTA system in photogalvanic cells for solar energy conversion. *Journal of Photochemistry and Photobiology A: Chemistry*, 1989; **48**:81-86.

14. Ameta SC, Punjabi PB, Vardia J, Madhwani S, Chaudhary S. Use of Bromophenol Red-EDTA system for generation of electricity in a photogalvanic cell. *Journal of Power Sources* 2006; **159**:747-751.

15. Gangotri KM, Meena RC, Meena R. Use of micelles in photogalvanic cells for solar energy conversion and storage: cetyltrimethyl ammonium bromide-glucose-toluidine blue system. *Journal of Photochemistry and Photobiology A: Chemistry* 1999; **123**:93-97.

16. Lal C. Use of mixed dyes in a photogalvanic cell for solar energy conversion and storage: EDTA thionine-Azur B system. *Journal of Power Sources* 2007; **164**:926-930.

17. Gangotri KM, Meena RC. Use of reductant and photosensitizer in photogalvanic cells for solar energy conversion and storage: oxalic acid-methylene blue system. *Journal of Photochemistry and Photobiology A: Chemistry* 2001; **141**:175-177.

18. Madhwani S, Vardia J, Punjabi PB, Sharma VK. Use of fuchsine basic: ethylene-diamine-tetraacetic acid system in photogalvanic cell for solar energy conversion. *Journal of Power and Energy: Part A* 2007; **221**:33-39.

19. Genwa KR, Genwa M. Photogalvanic cell: A new approach for green and sustainable chemistry. *Solar Energy Materials and Solar Cells* 2008; **92**:522-529.

20. Genwa KR, Kumar A, Sonel A. Photogalvanic solar energy conversion: Study with photosensitizers Toluidine Blue and Malachite Green in presence of NaLS. *Applied Energy* 2009; **86**:1431-1436.

21. Gangotri P, Gangotri KM. Studies of the micellar effect on photogalvanics: Solar energy conversion and storage-EDTA-safranin O-DSS system. *International Journal Energy Research* 2010; **34**:1155-1163.

22. Gangotri KM, Lal Mohan. Study of photogalvanic effect in photogalvanic cell containing mixed surfactant (NaLS+CTAB), methylene blue as a photosensitizer and xylose as reductant. *Research Journal of Chemical Sciences* 2013; **3**(3):20-25.

23. Lal Mohan, Gangotri KM. Study of photogalvanic effect in photogalvanic cell containing mixed surfactant (NaLS+Tween-80), methylene blue as a photosensitizer and xylose as reductant. Research Journal of Resent Sciences 2013; 2:76-81.

24. Chandra M, Singh A, Meena RC. Role of Rose Bengal-Mannitol system for generation of electrical energy in photogalvanic cell. International Journal of Physical Sciences 2012; 7:5642-5647.

25. Bhimwal MK, Gangotri KM, Bhimwal MK. A comparison of conversion efficiencies of various sugars as reducing agents for the photosensitizer eosin in the photogalvanic cell. International Journal of Energy Research 2013; 37:250-258.

26. Mao S, Fan D, Shen w. Influence of the mixed micelles on the electron transfer reaction $[\text{Co}(\text{NH}_3)_5\text{Cl}]_2^{++} + [\text{Fe}(\text{CN})_6]_4^-$ Colloids and Surfaces. A: Physicochemical and Engineering Aspects 2013; 420:103-108.

27. Thareja P, Golematis A, Street BC, Wagner JN, Vethamuthu MS, Hermanson KD. Influence of Surfactants on the Rheology and Stability of Crystallizing Fatty Acid Pastes. Journal of the American Oil Chemists Society 2013; 90:273-283.

28. Molina-Bolivar JA, Hierrezuelo JM, Carnero CR. Energetics of clouding and size effects in non-ionic surfactant mixtures: The influence of alkyl chain length and NaCl addition. Journal of Chemical Thermodynamics 2013; 57:59-66.

29. Lee NM, Lee BH. Mixed micellizations of TTAB with other surfactants (DTAB, CTAB, Tween-20, Tween-40, and Tween-80). Journal of the Korean Chemical Society 2012; 56:556-562.

30. Ageev AA, Volkov BA, Kibalov MS, Kukleva KK. Correlation between wetting and deterging abilities in mixed surfactant solutions. Fibre Chemistry 2012; 44:17-20.

31. Gangotri KM, Lal Mohan. Study of photogalvanic effect in photogalvanic cell with mixed surfactant for solar energy conversion and storage. Research Journal of Chemical Sciences 2013; 3:20-25.

32. Lal Mohan, Gangotri KM. A Comparative Study on the Performance of photogalvanic cell with mixed surfactant for solar emnerg conversion and storage. Research Journal of Resent Sciences 2013; 2:19-27.

33. Rathore Jayshree, Mohan Lal, Study of photogalvanic effect in photogalvanic cell containing single surfactant as DSS, Tatrazine as a photosensitizer and EDTA as reductant for solar energy conversion and storage. Research journal of chemistry and environment 2018; 06:53-57.