

Kopargaon Taluka Education Society's

K. J. Somaiya College of Arts, Commerce and Science, Kopargaon

CRITERION- 3 RESEARCH, INNOVATION AND EXTENSION

Key Indicator- 3.3: Research Publications and Awards

3.3.2: QnM: Number of books and chapters in edited volumes / books and paper published and papers published in national / international conference proceeding per teacher during last five years.

DVV clarification

Number of books and chapters in edited volumes / books and papers published in national international conference

2022-23

MULTIDISCIPLINARY STUDIES: PROSPECTS AND PROBLEMS IN MODERN ERA

ISBN: 978-920-5-20223-5



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Editors

Dr. S. Ayyappan

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Published in the year: July 2022

Published By:

Princeton Press

Overland Park, Kansas - 66212, USA Website: www.princetonpress.us

Title: Multidisciplinary Studies: Prospects and Problems in Modern Era

ISBN: 978-920-5-20223-5

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A STUDY ON PERCEPTION OF ENTREPRENEURS TOWARDS CHALLENGES IN TECHNOLOGY ADOPTION IN STARTUPS

Dr. Ganesh K Chavhan * Santosh Ram Pagare * * Shailendra Kashinath Bansode**

*Associate professor, K. J. Somaiya College of Arts Commerce and Science, Kopargaon Dist, Ahmednagar, Maharashtra,

**Professor, Department of Commerce, K. J. Somaiya College of Arts, Commerce and Science, Kopargaon, Dist-Ahmednagar, Maharashtra,

*** Assistant Professor, Department of English, K.J Somaiya College of Arts, Commerce and Science, Mohiniraj Nagar, Kopargaon, Ahamednagar, Maharashira

ABSTRACT

The advancement of Information Technology and computerization, IT industry became one of the emergin industries in 1990s and India became an important Information Technology service provider hub to the glob community, which was supported by encouraging parameters like knowledge know-how, fresh talg availability due to the increased number of engineering graduates in India and the emergence of knowledge workers which was lacking in the western world. After the Year 2000, these technology Service provides extended their services to various industries and domains with the ever-changing and emerging technologies In the early 2000s, IT industry witnessed dotcom boom and while IT as an industry by then had become agr backbone of many businesses, it became defect a goal of organizations to survive and grow in economy with other competitors in the global world. The specific objectives of the study are to overview the growth prospect of startups in India to find out the socio economic characteristics of the sample respondents. The research a hand employed the quantitative technique using survey methods to attain this purpose, 250 sample respondent have been eventually chosen for the research. The researcher concluded that the role that the government plays in creating an environment that is beneficial to the growth of new businesses may also be investigated. It is of the utmost importance to conduct an investigation into whether or not the efforts being made by the government are heading in the appropriate direction

Keywords: Support services. Start-up Enterprises, Challenges and Entrepreneurial Ecosystem

BACKGROUND TO THE RESEARCH STUDY

Entrepreneurship takes a woman entrepreneur into a totally different sphere in life. Women not just creates an opportunity for herself to bring her dreams to reality but, she also plays a vital role to bring in significant transformation in the society. This has been a challenge for a lot of women in the initial juncture forcing them to surrender their interests or sacrifice their dream of becoming a business woman halfway due to the discouragements and lack of perseverance in overcoming the challenges. Entrepreneurial venture has been defined by the Government of India in 2006, as 'A business that is owned and managed by a woman, in which the woman has at least a 51 percent financial stake in the company's capital. A entrepreneur has hidden potential that realizes due to the demanding role in the society and economic conditions. She has to overcome many challenges to fulfill her dreams and become financially independent.

NEED FOR WOMEN ENTREPRENEURS IN THE ECONOMY

The role of women in our society has changed drastically in the past few decades. The business ventures that were considered as masculine are now conquered by the women entrepreneur. The gender stereotypes are breaking in the society slowly. Women participation in the economic activity is just 25% wherein they constitute around 48% of the total Indian population. In India, compared to other countries, the gender gap in the overall workforce is the poorest. This inequality unswervingly distresses the economic development of the

country. Therefore, there is a need to understand business challenges faced by startup during the initial stage and growth stage to sustain the business venture.

- 1. Economic Growth: The invasion in the entrepreneurial ventures by the women leads to the significant economic growth and development. Women entrepreneurs have exceptional predisposition to build and uphold long term business relationships. Compared to their male counterparts, women entrepreneurs have more effective organizational and communicational skills. This ability helps them to network more appropriately that result in the reduced risk of failures of the organization. Thus the untapped potential of the women entrepreneurs has to be employed towards the innovation, job creation and economic growth. Generally, more number of women entrepreneurs validates for the improved economic growth and stability within a country.
- 2. Narrowing Gender Gap: A recent McKinsey Global Institute reports that by minimizing the gender gap in the labour force participation holds the potential to add \$12 trillion to global GDP by 2025. 7 This gives us a fair idea as to how the narrowing gender gap by empowering women entrepreneurs. This is achieved by bringing in the social and economic equality and inspiring more women to take up entrepreneurial ventures. When women become successful, the next generation of women also imitate their success, which results in their continuous economic participation and rapid growth in the economy.
- 3. Organizational Culture & Safety at Workplace: Women led organizations have a tendency for better organizational culture, transparency and high values by maintaining a healthier employee relationships across the organization. This is possible for the simple reason being the struggle of the women to maintain a work—life balance have taught them to be more flexible, sensitive to the health and safety issues of the employees. Women entrepreneurs have the ability to resolve employee grievances effectively.
- 4. Social Change: When a women entrepreneur is successful, her happiness and the levels of confidence is increased with a boost in their self-esteem and overall well-being. The financially empowered and independent women invest a substantial amount of their income for the health and education of their children, thus building a healthier and educated future generation. This leads to an incredible social change. In the words of Former President Dr APJ Abdul Kalam, "Empowering women is a prerequisite for creating a good nation, when women are empowered, society with stability is assured. Empowerment of women is essential as their thoughts and their value systems lead to the development of a good family, good society and ultimately a good nation." Thus, the Indian economy needs more women entrepreneurs. The successful women in business encourages and attracts more women to become entrepreneurs themselves.

CHALLENGES FACED BY WOMEN ENTREPRENEURS IN INDIA

In India, there is a huge difference in the variety of opportunities available to women as compared to men. The most of the business opportunities come from their home and lifestyles. The women entrepreneurs are at a disadvantage because they are doubted with their skills and personality traits required to be an entrepreneur. This affects their confidence making it difficult for them to walk on an unknown and unpredictable path as compared to the male entrepreneurs who are mostly more confident and are able to take and bear the business risks. Forbes/ Entrepreneurs magazine says that 90% of the new ventures of the women entrepreneurs fail as there is a difference about the perception of failure by men and women. Women take failures more personally and possibly avoid taking any further risks. Indian women face challenges right from ideation, mentorship, fund raising to finding the right team. Often, there are too many social barriers in the way of networking or bouncing of ideas. It becomes almost imperative for women to convince bankers, for example, that they are indeed creditworthy. Convincing families that they are on the right track is another hurdle. Women entrepreneurs face difficulty in availing sufficient finance. The major reason for this is gender bias. Women cannot give collateral security to the financial institutions to avail the credit facility as they do not usually have any property on their names. Thus, their access to the external financing is restricted. Also, the banks contemplate that women do not priorities on their business and thus can any day quit from it. thus consider them as a little less credit worthy and discourage them to borrow funds.1

Dun and Bradstreet. 1999. The challenges of managing a small business: Small business talks to small business.

Travelling for the business is always been difficult for women. It is not easy for them to move around an awfully supplies Travelling for the business is always been unusually source and we safety and without being questioned. A single woman is mostly looked with an awfully suspicious safety and without being questioned. A single woman is mostly looked with an awfully suspicious safety and without being questioned. A single woman is mostly looked with an awfully suspicious safety and without being questioned. A single woman is mostly looked with an awfully suspicious safety and without being questioned. safety and without being questioned. A single state of the unsupportive family, the officials, and a long to forego their dreams of becoming an entrepreneur. This is mainly become India. Also the humiliation the women have society at large forces them to forego their dreams of becoming an entrepreneur. This is mainly because the society at large forces them to forego their dreams of their homes as they are not very well as women here lead a more secured life within the four walls of their homes as they are not very well as women here lead a more secured. Thus, their business risk bearing ability is reduced, which is women here lead a more secured in.

and also not financially independent. Thus, their business risk bearing ability is reduced, which is the and also not financially independent. Thus, their business risk bearing ability is reduced, which is the same and also not financially independent. Thus, their business risk bearing ability is reduced, which is the same and also not financially independent. important ingredient in the successful entrepreneurship. In the recent years, there have been significant the from both the private and public sectors to improve the entrepreneurial ecosystem resulting in posts from both the private and path changes; however, there are still gender gaps in entrepreneurship which puts the female population at disadvantage,

Women still remain underrepresented among the business owners and face disproportionately high beriewhen trying to start and grow their businesses. Challenges of women entrepreneurs are myriad and of en result of complex entrepreneurial ecosystems, their motivations, attitudes and the socio-cultural environment in which they exist. Women entrepreneurs face additional barriers related to custom due to the social to-se that dictate their role in the society. They have less time available due to the existing gender division of king. and child care activities. Norms around mobility are also restrictive for women entrepreneurs,2

STARTUP STRATEGIES ADOPTED FOR BUSINESS SETUP AND GROWTH OF BUSINESS

Madireddy (2010) has conducted a phenomenological study on Management and Leadership Challengers achieving success by technology Start-ups with the sample data based in Silicon valley, CA, USA with a sample of 22 participants. He has captured the success factors in technology startups relevant to Silver Valley. The findings are organized and presented in the order of categories of the successful status phenomenon: (a) project planning and execution strategies factor, (b) project monitoring strategies factor, (c) project reporting strategies factor, (d) hiring strategies factor, (e) product strategies factor, (f) patering strategies factor, and (g) outsourcing strategies factor. The results indicate that patenting tactics, outsourcing techniques, and product strategies such as concurrent multi-products might be successful for technologies start-ups. The consequences for leadership included the rise of transactional and transformational leadership the most significant success criteria to achieving success in a given endeavor. The interview procedure we restricted to participants from a certain geographic region, namely Silicon Valley in California. The carrestudy was restricted to only focusing on start-ups in Silicon Valley. This helped to identify the reasons for start-up failures or successes that were unique to Silicon Valley while excluding the reasons for start-up failures or successes in other locations. As a result, the results cannot be generalized it, all start-ups in the same sectors located in other regions or to all start-ups in other sectors worldwide

Varit (2014) has conducted a research study based on case studies key aspects of startup and innovation strategies for high-tech small and medium-sized enterprises in Thailand. The purpose of this study is a investigate the link between start-up variables, innovation methods, and the business performance of high-test entrepreneurs in Thailand. The research utilizes a qualitative approach and uses descriptive statistics. For the purpose of computing results, a case study of four entrepreneurial businesses as well as in-depth interviews with their CEOs and founders were carried out. According to the findings of the survey, three out of four businesses rely on an imitation approach, while just one business utilizes a first mover strategy. They all utilize a tactic of forming alliances. Although every firm has seen growth over the previous three years, in first mover company has had the greatest growth rate. Every entrepreneur has a high readiness of company start-up factor, but the pace at which their companies expand is unique to them. There are just four examples total, which is a small number that prevents a generalization of the entrepreneurial theory from being main

Kathleen M. Eisenhardt, Jeffrey A. Martin. 2000. "Dynamic capabilities: what are they? "Strategic Management Journal, Volume 31. Issue 10-11. Pages 1105-1121

JayaramMadireddy. 2010. Management and leadership challenges in achieving success by technology startups. A phenomena study', PhD Dissertation, University of Phennix.

Varithtrama 2014. Business Start-Up Factors and Innovation Strategies Case Study. HiTech SME in Thailand: Internation Journal of the Computer, the Internet and Management Vol 22 No.1, pp. 53-61

It's possible that the sample firms, which are all part of the Information Technology cluster, aren't the best representations of high technology clusters.

NEED FOR THE STUDY

It is more crucial than ever to make choices for your money that are deliberate and well-informed. Because of the increasing responsibility that is being placed on people to make wise financial choices, the significance of having a solid understanding of personal finance is something that cannot be minimized. To be able to pay their living expenses for a longer period of time and the fact that the financial climate seems to be changing at a quicker rate, individuals must have collected more cash prior to retirement. Costs and earnings have usually continued to climb to the point that having an income or retirement nest fund that a few years ago would have been lavish now looks to be just about acceptable. This is because there are more financial possibilities and there are more choices of financial services. Therefore, the purpose of this study is to gather evidence regarding the level of financial literacy held by university students in Ethiopia, present that evidence to the government in the form of recommendations for areas of improvement, and incorporate those recommendations into the process of designing a curriculum that will most effectively raise the level of financial literacy, the nation's economic growth will increase since these students are the future generations who will have the capacity to govern the country

STATEMENT OF THE PROBLEM

Financially knowledgeable individuals knows how to manage activities related to money, how to save and invest, how financial institutions do their business and owns analytical abilities to make informed decisions. Furthermore, they would know how they should handle their financial affairs and how to be responsible financially for their self-and family. Financially literate persons are able to prepare financial budget, understand the importance of saving and protect their savings, when they spend they do it wisely, when they make big purchase they do it for items that are worthwhile. Financial knowledge helps in differentiating the advantages and disadvantages of debt. pay attention to portfolio, income, expense, saving and investment.

OBJECTIVE OF THE STUDY

The primary purpose of the research is to analyze the difficulties that information technology services Startups in India encounter the sugheaut the early setup and development stages of their businesses. The specific objectives of the study are

- I. To mercial the growth of success in India
- 2. To find out the Social economic characteristics of the sample respondents
- To my estigate which finance mode is common among the sample population
- 4. To overview the challenges in technology adoption in Startups

OBSERVATIONS AND FINDINGS

Research Design

Technology seems to be the industry of choice for many of today's aspiring business owners. It's a broad, fast-growing field that attracts investors and venture capitalists, and if you succeed, the payout potential is enormous. The allure of faunching a tech startup is easy to understand, but some entrepreneurs fail to consider the unique risks they'll face in the competitive world of technology. After completing a literature analysis, the research discovered that various studies have supported each of the identified characteristics of entrepreneur. The next stage was to acquire an empirical proof of the same. The research at hand employed the quantitative technique using survey methods to attain this purpose. 250 sample respondents have been eventually chosen for the research.

FINDINGS

1. Socio economic characteristics

The socio-economic characteristics of the entrepreneurs are important factors to influence startups. In this perspective, the nature of the sample respondents is given below. The age, gender, income level and level of spending are the variables considered in the study.

Table 1: Gender

Gender	Frequency	Percent
Female	128	51.2
Male	122	48.8
Total	250	-100

The above table shows that out of 250 sample respondents, majority of the respondents are male (48.8) and female are 51.2%.

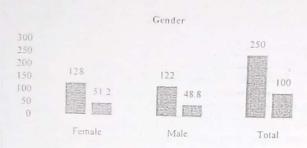


Table 2: Age group

Age group	Frequency	Percent
Young	174	69.6
Middle	40	16.0
Old	36	14.4
Total	250	100





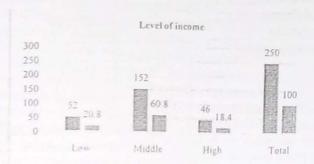
= Frequency '= Percent

According to the age group, 40 (16.0%) respondents belong to the middle age group, 174 (69.6%) are from the young age group and 36 (14.4%) respondents are from the old age group.

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Table 3 Level of income.

Level of income	Frequency	Percent
Low	52	20.8
Middle	152	60.8
High	46	18.4
Total	250	100

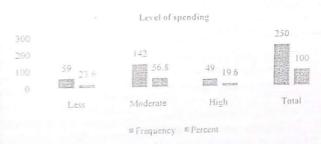


The respondents are grouped based on their level of income as given in the above table, 152 (60.8%) respondents are from middle income family, 52 (20.8%) respondents belong to the low income group and 46 (18.4%) from high income group.

Table 4 Level of spending

Level of spending	Frequency	Percent
Less	59	23.6
Moderate	142	56.8
High	49	19.6
Total	250	100

The distribution of the respondents according to their level of spending towards the online shopping indicates that 142 (56.8%) respondents are spending moderately, 59 (23.6%) respondents spending less and 49 (19.6%) respondents are spending more towards online shopping.



Mode of Finance Opted By the Start-Ups

Mode of finance opted from the data collected through online questionnaire showed that the most common mode of finance opted by the start-ups is followed by Bootstrapping (10.4%)., bank loans (24.8%). Seed funds (15.2%)., Venture Capital (9.2%), Crowd Funding (6.8%), Microfinance (16.4%) Government schemes (9.2%) and others (8%)

Table 5 Mode of Finance

Mode of finance	Frequency	Percent
Bootstrapping	26	10.4
Bank Loans	62	24.8
Seed Fund	38	15.2
Venture Capital	23	9.2
Crowd Funding	17	6.8
Micro Finance	41	16.4
Government Schemes	23	9.2
Others	20	8.00
Total	250	100

CHALLENGES IN TECHNOLOGY ADOPTION IN STARTUPS

The wealth and poverty of developing countries is entirely dependent on the entrepreneurial nature of their economies. The entrepreneurship has played an important role in economic growth, innovation, and competitiveness and it may also play a role over time in poverty alleviation (Landes 1998)Entrepreneurial women were polled on the difficulties they faced while establishing their businesses as well as those they face now; these two sets of issues are distinct from one another. The most often cited difficulties are those associated with finances and marketing in either case. However, people-related obstacles are more difficult now than they were when the company was just getting started, demonstrating that as teams develop, so do the difficulties connected with them. Personal challenges, such as bandwidth and time management, on the other hand, drastically decrease, which suggests that women's confidence in their own abilities as business owners has increased over the course of their experience.

Table 6: Challenges in technology adoption in Startups

Factors	Mean	Std. Deviation	Mean Rank
Marketing	3.28	1,179	6.39
Financial	3.16	1.146	6.02
Product	3.14	1.021	6.70
People	3.42	1.087	6.76
Technology	3.58	1.234	6.86
Process	3.29	1.237	6.27
Knowledge	3.26	1.189	6.52
Personal	3.21	1.099	6.47
Legal	3.13	1.102	6.84
Innovation Hubs	3.35	1.258	6.89
Strategy and Planning	3.26	1.259	
Team Building and Leadership	3.07	1.098	6.52

From the above table, it is found that technology adoption in Startups, Innovation Hubs (6.89) one from the respondents point of view. Secondly, Technology considered as most important factor (6.86). Legal(6.84). Another feature of the technology adoption in Startupsis Personal(6.47). The significance of the result of ranking is tested with the help of Friedman ranking.

Table 7: Friedman Test

N	250
Chi-Square	25.582
dſ	11
p	0.006

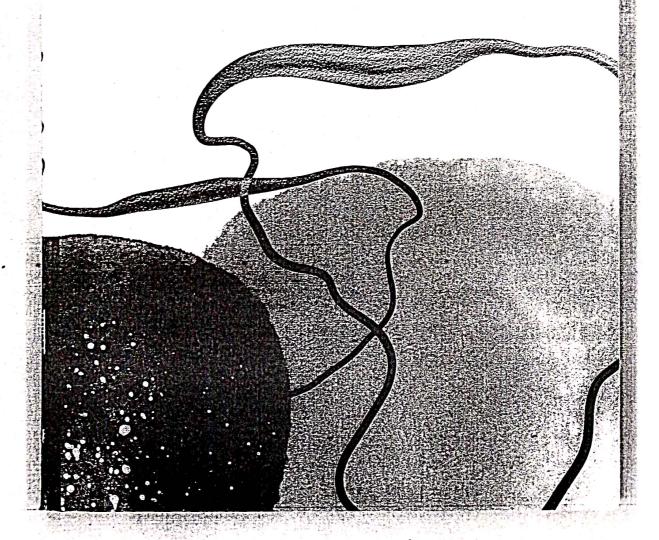
Multidisciplinary Studies: Prospects and Problems in Modern Era The ranking result from 250 sample respondents shows the difference in the ranking for each factor is The ranking result from the ranking for each factor is significant. The calculated Chi-Square value is 25.582 for the degree of freedom 11 is more than expected significant. The value of probability is 0.006. It shows that the ranks given by the respondents are significant.

In a nutshell, the current study contributes significantly to the body of knowledge that may be usefully used by In a nulsition, one academics, policymakers, and practitioners. This study contributes to start-up entrepreneurs, universities, academics, possessions, and nations that are working towards knowledge-based, innovation-driven economies, where entrepreneurs play important roles, by addressing the need to improve entrepreneurial support in order where entrepreneurial support in order to avoid wasting the Dept. To avoid wasting the R&D efforts of researchers. In other words, the study addresses the need to improve entrepreneurial support in order to avoid wasting the R&D efforts of researchers. Theoretically, this study adds value to the existing body of literature by bringing up important factors such as mentoring support, links to industry, social networks, the prior work experience of the entrepreneur, the feasibility of technology, the product, and the market, etc. that deserve more research attention to better understand start-up success as well as dealing with the challenges that are associated with being an entrepreneur. In a subsequent study, maybe this facet will be included into the process of constructing a prototype for market research. It is possible to do research on each stage of the life cycle of financial analysis for a startup. When it comes to designing a financial plan for the introduction of a product, there are a few different measurements that can be established that might be beneficial. In further research, the role that the government plays in creating an environment that is beneficial to the growth of new businesses may also be investigated. It is of the utmost importance to conduct an investigation into whether or not the efforts being made by the government are heading in the appropriate direction. It is possible to carry out research in order to learn which programme or policy is usedby the vast majority of new businesses and the factors that contribute to this phenomenon. REFERENCE

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सम्पादक डॉ सुनील गुलाबसिंग जाधव



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डॉ. संजय भाउसाहेब द्वांगे

हिंदी साहित्यिक पटल पर अपनी लेखनी से विशिष्ट पहचान बनाने वाले रत्नकुमार सांभरिया का नाम नाटककारों में अग्रिम पंक्ति में है। विविध विषयों पर यथार्थ लेखन करने वाले श्री सांभरिया अपनी रचनाओं में पात्रों के माध्यम से हमारे बीच मौजूद रहते हैं, मानो नायक की अभिव्यक्ति नायक की न होकर खुद सांभरिया की है। विविध विधायों में लेखन कार्य करने वाले श्री सांभरिया का साहित्य निम्मलिखित है।

नाटकः- वीमा, उजास, भभूल्या

कहानी संग्रह :- हुकम का दुगी, काल तथा अन्य कहानियाँ, खेत तथा अन्य कहानियाँ, दलित समाज की कहानियाँ, एयरगन का घोड़ा।

एकांकी संग्रह :- समाज की नाक

लघुकथा संग्रह :- वांग तथा अन्य लघुकथाएँ, प्रतिनिधि लघुकथा शतक। आलोचना:- मुंशी प्रेमचंद और दलित समाज

उपन्यासः- "साँप"

अनुवाद :- डॉ. अंबेडकर: एक प्रेरक जीवन (अरबी-सिंधी में भी अनुवाद) रत्नकुमार सांभरिया को साहित्य लेखन के कारण कई पुरस्कारों से सम्मानित किया गया है।

नवज्योति कथा सम्मान

वीमा नाटक के लिए राष्ट्रीय अश्वघोष पुरस्कार

चपड़ासन कहानी के लिए उपराष्ट्रपति द्वारा सम्मानित

कथादेश अखिल भारतीय हिन्दी कहानी प्रतियोगिता-प्रथम पुरस्कार् "विपर सूदर एक कीने" कहानी राजस्थान पत्रिका मुजनात्मक पुरस्कार, हरियाणा साहित्य अकादमी द्वारा हरियाणा गौरव सम्मान, घासीराम वर्मा साहित्य पुरस्कार ।

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डॉ. वाल्, क्षेव अंवेडकर के विचारों से प्रेरित होकर साहित्य लेखन करने वाले साहित्यकारों स्मिर्त्या एक है। जिनकी लेखनी में डॉ. वावासाहेब अंवेडकर का कार्य दृष्टिगोचर होता है। दिलत जाति पर हो रहे अत्याचार को दिखाते हुए लेखक ने अन्याय के विरोध में उठाई गई है। आवाज में सफलता की गुंजाइश दिखाई है। यह नाटक एक साथ तीन विमशों को लेकर चलता है। जहाँ तक मेरा अध्ययन है वीमा हिंदी का पहला नाटक है, जिसमें नाटककार ने दोनों प्रेमियों को नेत्रहीन दिखाते हुए दिलत विमर्श के साथ-साथ विकलांग व्यक्तियों के दुःख-दर्द तथा संघर्ष को चित्रित करने की कोशिश की है। इसके साथ ही इसमें दिलत-विमर्श स्वतः मुखर है। जैसे- नेत्रहीन वीमा के साथ अत्याचार करने की कोशिश करना, नेत्रहीन जमन की शादी नेत्रहीन वीमा के साथ करवाना, नेत्रहीन वीमा का अपहरण करना आदि।

विकलांगता अगर शारीरिक हो तो बात अलग हैं, पर यही विकलांगता अगर मानिसिक बन जाती है तो खुद के साथ-साथ समाज को भी बरवाद कर देती है। नाटक के श्यामाजी, सी.सी.झा, आका उदाहरण हैं। व्यक्ति कितना भी कमजोर क्यों न हो अगर, उसमें आत्मविश्वास और निस्वार्थ भाव है और मन में कुछ करने का साहस है तो वह कोई भी कार्य सफलतापूर्वक कर सकता है। यह नाटक का नावक जमन हमें दिखाता है। संसार का सबसे पवित्र शब्द प्रेम है। प्रेम की गरिमा को कबीरदास ने इन शब्दों में अभिव्यक्त किया है। 'प्रेमी को ढूंढत में फिरा, प्रेमी मिला ना कोय, प्रेमी को प्रेमी सिले, तो सब विष अमृत होय।' प्रेम की इसी उदातता तथा पवित्रता को नाटककार ने वीमा नाटक में दिखाया है। सवर्ण परिवार की लड़की वीमा और दिलत जाति के जमन की एक घटना से मुलाकात हो जाती है, और यह भेंट प्रेम से शादी में परिवर्तित होती है। "सपने वे नहीं होते जो नींद में आते हैं, सपने वो होते है, जो सोने नहीं देते। एक सपने ने मुझे सोने नहीं दिया।" (पृ. 42)

दिलत या निम्न जाति के लोगों को आज भी उपेक्षा या तिरस्कार की नजर से देखा जाता है। कबीरदास के 'जाति न पूछो साधु की, पूछ लीजिए ज्ञान" पद का उदात अर्थ वीमा प्रतिपादित करती है अर्थात वह इस जातिव्यवस्था का विरोध करती है। साथ ही जातिप्रधा का पालन करने वालों को जाति की विद्वत परिभाषा भी अपनाने की सलाह देती हुई जमन से कहती है "छोड़ो भी जमन। इतने पड़े-लिखे होकर भी जात की काप में पाँव मार रहे हो। तुम मरद हो, में औरत हूं। दो जात तुम नेत्रहीन, मैं नेत्रहीन- एक जात" (पृ 45)। वर्तमान समय में सुदृढ़ तथा सर्व इंद्रीय संपन्न व्यक्ति किसी महिला पर हो रहे अत्याचार को अनदेखा करता है, वहाँ जमन जैसा दिव्यांग व्यक्ति वीमा पर हो रहे शारीरिक अत्याचार का विरोध करता है और पत्थर मार गुंडे को भगा कर वीमा की इज्जत बचाता है। नाटक में अधिकांश

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पात्र जमन के विचारों से जुड़े हैं, इसलिए वे हर बार जमन का पक्ष लेते हैं, पर जाति के नाम पर सब उसके विरोध में चले जाते हैं। निम्न जाति का जमन जब पीड़ित वीमा को बचा लेता है तो सब जमन की प्रशंसा करते हैं, पर वह जब वीमा से शादी करता है तो वही लोग जमन और वीमा के जीवन में दीवार बन कर खड़े होते है।

जातिप्रथा को नष्ट करने में 'अंतरजातीय विवाह' की अहम् भूमिका होती है। इस जाति व्यवस्था की दीवार को तोड़ने के लिए लेखक ने नाटक में जमन तथा वीमा दोनों विजातीयों की शादी भी दिखाई है, इसके माध्यम से लेखक ने 'जाति निर्मूलन' का संदेश भी हमें दिया है। "हमारा समाज एक सीढ़ीनुमा समाज है। जिसमें हर जाति से बड़ी तथा हर जाति से छोटी जाति का अस्तित्व विद्यमान हैं। यह सिर्फ ऊँची व नीची जाति का विभाजन नहीं है। बल्कि निम्म जाति को भी आपस में बाँटा क्रया है। यह जातिप्रथा अंदर तक अपनी जड़ जमा चुकी है। इसकी जड़ों को हिलाना संभव है। परतु जड़ों से उखड़ना असंभव है।" (पृ. 12) उच्चपदस्थ तथा सवर्ण के लोग जमन और वीमा को केवल जातिभेद के कारण त्रस्त कराते हैं। अपनी बुद्धि का उपयोग करके जमन आन्दोलन को और प्रभावी बनाता है। इस सफलता से वीमा और जमन का मिलन पुनः हो जाता है।

है और नाटक के अंत में वीमा को हासिल भी कर लेता है। नेत्रहीन होकर भी जमन विवाह में किसी दूसरी लड़की से विवाह कर लो। साथ ही पाँच सौ रुपये वेतन वढ़ाने करा देते हैं। जमन के सामने नई शादी का प्रस्ताव रखते हुए कहते हैं, तुम सामूहिक 44) वहीं श्यामाजी जाति के नाम पर दोनों की शादी तोड़ने हेतु वीमा का अपहरण हो तुम दोनों। चाहो तो शादी कर लो अभिभावक की भूमिका में में हू ना।" (पृ. है। नाटक का नायक जमन दिव्यांग होकर भी वीमा को गुंडे से बचाता है, तो नेत्रहीन हैं-"वह भी नेत्रहीन तुम भी नेत्रहीन। वह भी सुंदर तुम भी सुंदर। हम उम्र से भी 40) जो श्यामाजी जमन और वीमा की शादी में अभिभावक की भूमिका निभाते बनता, करती थी। वर्तन भांडे धोना, यच्चों को नहलाना धुलाना स्कूल भेजना।" (पृ वीमा मां के निधन के बाद घर का सब काम करती है "आँखें नहीं तो क्या? जितना लिखा यह नाटक विकलांग व्यक्तियों के साहस और कार्यक्षमता का परिचय देता सामने आई है क्वोकिं आज पैसों के लिए बालकों का तथा हवस का शिकार बनाने अपहरण की समस्या को दिखाया है जो वर्तमान में एक ज्वलंत समस्या के रूप में की यह कोशिश समाज को दिशानिर्देश देती है। नाटक में रत्नकुमार सांभरिया ने हेतु युवा लड़कियों का अपहरण किया जाता है। पूर्वदीप्ति (फ्लैश वैक) शैली में जमन अपनी खोई हुई पत्नी को प्राप्त करने हेतु जी जान से कोशिश करता

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की वात भी करत हैं— "निःशक्तों के सामूहिक विवाह के लिए हमने आवेदन आमंत्रित किए हैं। तुम भी अपनी अर्जी लगा दो। हाँ जाति के कॉलम में अपनी जाति जरूर लिख देना, साफ़ साफ़।"(पृ. 17) "वह ज़मींदार, तुम फाकामार। वह सिर, तुम चरण। शर्म आनी चाहिए तुम्हें।" (पृ. 19) यहां तक श्यामाजी उसे वीमा से तलाक लेने वाले कागज़ात पर हस्ताक्षर करने के लिए भी कहते हैं।

चाहए।" है।" (पृ. 52) नाटककार ने इस नाटक में समाज परिवर्तन का प्रमुख आधार-स्तंभ और पूँछ हिलाते रहें। निःशक्तों की पीड़ा से उनका दूर-दूर तक कोई लेना देना नहीं हैं। जमन का आका के संदर्भ में यह वाक्य इस बात की पृष्टि कराता है—"ये जो सकते हैं, विना जात एक पल भी नहीं रह सकते। पक्षी भी अपनी हैसियत के यह व्यवहार इस बात को सिद्ध करता है-"हम सालों साल, उम्रभर, बिना धर्म जी सब बातों से जमन जब निःशक्तों के रक्षक आंका के पास आता है तो आंका का जातिभेद के कारण वीमा का अपहरण कराना, जमन को स्कूल से निकाल देना, इन है। वहां के प्रमुख या ठेकेदार आज स्वार्थ केंद्रित जीवन जी रहे हैं। श्यामाजी द्वारा में अपनी समस्याओं को लेकर आते हैं पर कई बार वहाँ उनका भ्रम निराश हो जाता उठाने वाली संस्था का निर्माण हुआ है, पीड़ित व्यक्ति बड़ी उम्मीद से ऐसी संस्था बाज' समाचार पत्र में जमन के विरुद्ध छपा यह समाचार इसका पर्दाफाश करने में करारा व्यंग्य किया है। नाटक में चित्रित पत्रकार झा इसका उदाहरण है। 'दैनिक पत्रकारिता को मानते हुए आजकल प्रलोभन से काम करने वाले पत्रकारों पर भी आका है ना दोमुँहे हैं। उनको अपने चहेते चाहिए। ऐसे वफादार जो पैर चाटते रहें किया है, वर्मा।" (पृ. 31) ऐसे लोग केवल स्वार्थ के लिए इस प्रकार के काम करते मुताबिक ही पंख फड़फड़ाता है, उड़ता है। तुमने अपनी औकात का अतिक्रमण सहायक सिद्ध होता है। "नेत्रहीन ने जात छुपा कर ब्याह रचाया, पत्नी को तलाक वर्तमान में अनेक जगहों पर अन्याय अत्याचार पीड़ित के खिलाफ़ आवाज

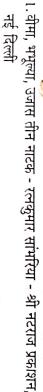
आज अनेक पढ़े-लिखे लोग जो सरकारी सेवा में उच्चपदस्थ हैं, उनकी जाति प्रथाओं को तोड़ने में अहम् भूमिका होती है। पर कई बार यही लोग जाति को वरकरार रखने की कोशिश करते हैं। जाति से पीड़ित जमन और देवतसिंह जब समाचार पत्र में छपी गलत खबर की शिकायत हेतु थानेदार के पास जाते हैं तो वह शिकायत दर्ज करने की बजाय जमन को ही डराते-धमकाते हैं "स्साले, अंधे, लंगड़े-लूले भी वड़े घरों की लड़िकयों को धोखा देकर उससे शादी रचाने लगे हैं। ज्यादती करने लगे हैं। गुंडे कहीं के।"(पृ. 70) सर्वसामान्य जनता या शोषित समाज

जब एकत्रित हो क्रांति की मशाल को जलाते हैं तो वड़ी-वड़ी दें त्याँ भी उनके सामने तितर-वितर हो जाती है। निःशक्तों की शक्ति का एहसास कराते हुए विकलांग संघ के अध्यक्ष देवतिसंह जमन से कहते हैं— "निःशक्त अपनी पर उतर आएं तो लोहे की गेंद हैं। लोहे की गेंद को न किक मारी जा सकती है, न उसे उछाला जा सकता है।" (पृ. 88) शैक्षिक समस्या का चित्रण करने में भी यह नाटक सफल सिद्ध हुआ है, क्योंकि लेखक ने दिलत जाति के जमन को अध्यापक दिखाया है, जो जातिभेद का शिकार बना है। जमन श्यामाजी के शैक्षिक संस्था में अध्यापक का काम करता है। परंतु सवर्ण जाति की लड़की से शादी करने पर श्यामाजी उसे नौकरी से निकाल देते हैं। जब पत्रकार झा इस सन्दर्भ में श्यामाजी से प्रश्न पूछता है तो उत्तर में संस्थापक श्यामाजी कहते हैं— "बेटे आपकी शिराओं में पड़ लड़की मेरी रिश्तेदार निकल आई। नीची जाति का जमन वर्मा मेरे स्कूल में टीचर और उसकी पत्नी मेरी रिश्तेदार है। बेटे, आँखों देखी मक्खी नहीं निगली जाती न?" (पृ. 67)

देते हैं। इस घटना में लेखक ने संविधान के महत्व को उल्लेखित करते हुए उच्चवर्णीय लोगों की बदलती मानसिकता को भी चित्रित करने की कोशिश की है। में जातिवादी समायोजन भी दिखाई देता है, जैसे नाटक में चित्रित श्यामाजी सवर्ण उदाहरण जमन है। विकलांग अर्थात नेत्रहीनों के अद्वितीय कार्य की एक गौरवशाली दलित और नेन्नहीन होकर भी जातिगत संघर्ष तथा सफलता का जीता जागत होते हुए भी नाटक के अंत में डरे हुए महसूस होते हैं तथा वीमा को जमन के पास जातियों के लिए कायदे कानून बने हैं। कुछ जातियों में विशेष कर सवर्ण जातियों वह चीज हमें मिल जाती है। नेत्रहीन जमन नेत्रहीन पत्नी वीमा को पाने के लिए को होसिल करता है। नाटक का निडरता से परिपूर्ण संवाद जमन के आत्मविश्वास परांपरा है जैसे सूरदास आदि। इन गौरवशाली परंपरा की श्रृंखला को जोड़ने का काम तोड़त हुए सवर्ण तथा शापक वर्ग को घुटने टेकने के लिए मजबूर कर देता है भरसक कोशिश करता है, संघर्षरत रहता है और नाटक के अंत में आंदोलन का रूख (पृ. 21)तन-मन से अगर किसी चीज को हम पाना चाहते हैं तो एक ना एक दिन को दिखाता है—"में नेत्रहीन हूँ, कायर नहीं, वीमा की खातिर मरने से नहीं डरूंगा।" 'वीमा' नाटक का जमन करता है जो संघर्षमय जीवनयापन करके अपनी सफलत नाटक जाति व्यवस्था की दलदल सं दूर हाकर एक-दूसर का सम्मान करके अपने अंक्षियार कर वीमा को प्राप्त करता है। अपने हुढ़ निश्चय से जाति व्यवस्था को प्रगति करने की नवदृष्टि हमें प्रदान करता है संविधान ने सभी जाति धर्म को जीने का अधिकार है। इसी कारण सभी

98 रत्नकुमार सांभरिया के नाटक : अपनी-अपनी दृष्टि

संदर्भ



2. दलित समाज की कहानियां - रत्नकुमार सांभरिया - अनामिका पब्लिशर्स एंड डिस्टीब्यूटर्स, नई दिल्ली

शोधालेखः-

- रत्नकुमार सांभरिया रचित नाटक 'वीमा' की कथावस्तु डॉ. सुनील जाधव
- 2. वीमा नाटक में दलित चेतना राजाराम कानड़े
- 3. रत्नकुमार सांभरिया के नाटक वीमा में निःशक्त चेतना पूनम यादव

सहायक प्राध्यापक, हिंदी विभाग, के.जे. सोमैया कला, वाणिज्य एवं विज्ञान महाविद्यालय, कोपरगाँव (महाराष्ट्र) 423601

स्ववृत्त

प्रा.रवींद्र पुंजाराम ठाकरे

सामान्य किसान परिवार में १६अगस्त,१९७९ को हुआ।

एम.ए.,बी.एड., सेट,नेट(हिंदी साहित्य)

संप्रति: सहायक प्राध्यापक, महात्मा गांधी विद्यामंदिर,नाशिक संचालित-कला एवं वाणिज्य महाविद्यालय,येवला,तह-येवला,जि –नाशिक (महाराष्ट्र)

गतिविधियाँ:

- १.स्नातकोत्तर कक्षा के अध्यापक के रूप में सावित्रीबाई फुले पुणे विश्वविद्यालय की स्वीकृति.
- २.अनेक राष्ट्रीय और अंतर्राष्ट्रीय हिंदी पत्र-पत्रिकाओं में ५०शोधालेख प्रकाशित.
- ३.आकाशवाणी जलगाँव और रेडिओ विश्वास, नाशिक से साहित्यिक वार्ताएं प्रसारित.
- ४. कई राष्ट्रीयऔरअंतर्राष्ट्रीय संगोष्ठियों में आलेखवाचक,प्रमुख अतिथि, सत्र अध्यक्ष के रूप में
- ५.अब तक ०८ विद्यार्थी सेट, नेट परीक्षा उत्तीर्ण.
- ६. ०५ राष्ट्रीय संगोष्ठियों का सफल आयोजन.

आजीवन सदस्यता: १. महाराष्ट्र हिंदी परिषद (महाराष्ट्र राज्य)

रूची: अध्ययन- अध्यापन के अतिरिक्त खेल, कला, संगीत, सामाजिक कार्य और पर्यावरण संरक्षण

संपादित ग्रंथ: १."प्रथम दशक के साहित्य में स्त्रीऔरदलित विमर्श"

सम्मान:

१.भारतीय दलित साहित्य अकादमी नई दिल्ली द्वारा 'महात्मा ज्योतिबा फुले राष्ट्रीय फेलोशिप

- २.राजर्षिशाह् महाराज राज्य स्तरीयआदर्श प्राध्यापक सम्मान-२०१३
- ३.लोककवि वामनदादा कर्डक राज्य स्तरीय आदर्श प्राध्यापक पुरस्कार-२०१४
- ४.भारत सरकार मान्यता प्राप्त हिंदु वेलफेअर फाऊँदेशन,पानीपत शिक्षा प्रकोष्ठ द्वारा राष्ट्रीय शिक्षक गौरव सम्मान-२०२१
- ५.माईंड ग्यालेक्सी संस्था,महाराष्ट्र का आदर्श प्राध्यापक सम्मान -२०२१

जे.टी.एस. पब्लिकेशन्स

वी -508 गली नं. 17,विजय पार्क,दिल्ली -110053 मो.08527460252,9990236819

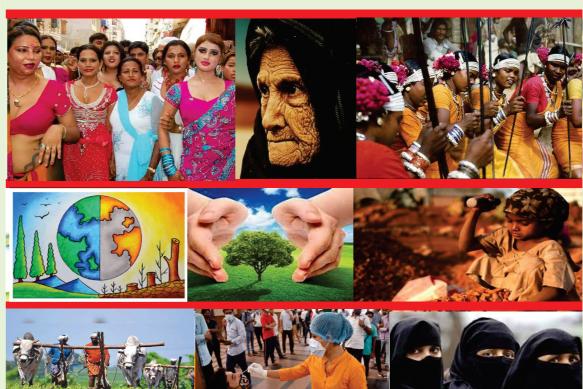
ई मेल : jtspublications@gmail.com







हिंदी साहित्य विविध विमर्श





संपादक: प्रा. रवीन्द्र ठाकरे डॉ. रघुनाथ वाकले



डॉ.रघुनाथ नामदेव वाकळे जन्म: ०१ जून १९६७ शिक्षा: एम ए हिंदी, पीएच.डी सम्प्रति : सहाय्यक प्राध्यापक, (हिंदी विभागाध्यक्ष) महात्मा

गांधी विद्यामंदिर संचलित (नासिक) - कला व वाणिज्य महाविद्यालय, येवला नाशिक (महाराष्ट्र)

गतिविधिया:

- १) राष्ट्रीय एवं अंतर्राष्ट्रीय स्तर की ४१ पत्र-पत्रिकाओं में संशोधनात्मक एवं आलोचनात्मक आलेख प्रकाशित।
- २) ई-अंतर्राष्ट्रीय संगोष्ठी में आलेख प्रकाशित।
- ३)महाविद्यालय में चार राष्ट्रीय संगोष्ठी का आयोजन। ४) पाँच ई- राष्ट्रीय संगोष्ठी का महाविद्यालय में आयोजन।

पुरस्कार:

- १) राष्ट्रीय हिंदी उत्कृष्ट अध्यापन सेवा कार्य गौरव पुरस्कार। (अहमदनगर)
- २) मातंग एकता आंदोलन महाराष्ट्र राज्य आदर्श शिक्षक पुरस्कार। (पुणे)
- ३) के. बी. एच. विद्यालय मळगाव, ता. मालेगाव नाशिक आदर्श माजी विद्यार्थी पुरस्कार।(मळगांव)

संपर्क सत्र: अथर्व रो बंगलो, वाढणे कॉलनी, जिला-नाशिक (महाराष्ट्र)



संपादक: प्रा. रवीन्द्र ठाकरे डॉ. रघुनाथ वाकले



हिंदी साहित्य विविध विमर्श



संपादक: प्रा. रवीन्द्र ठाकरे डॉ. रघुनाथ वाकले

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हिंदी कहानी साहित्य में वृद्ध विमर्श

प्रो.(डॉ.) जिभाऊ शा. मोरे के.जे.सोमैया महाविद्यालय कोपरगांव,जि. अहमदनगर

पर प्रकाश डालने की कोशिश की जा रही है। भी उदाहरण दिए जा सकते हैं। परंतु नीचे इन्हीं कहानियों के परिप्रेक्ष्य में वृध्द विमर्ग प्रकाश की कहानी 'छप्पन तोले का करधन', मन् भंडारी की कहानी 'अकेली. भीष्म साहनी की कहानी 'चीफ की दावत' आदि इस दृष्टि से महत्वपूर्ण हैं। ऐसे और काकी, उषा प्रियंवदा की कहानी 'वापसी', ज्ञानरंजन की कहानी 'पिता', उद्य मामिकता के साथ वृद्धावस्था का चित्रण किया है। जैसे- प्रेमचंद की कहानी जूड़ी हिंदी कहानी साहित्य में विपुल मात्रा में पाया जाता है। कहानीकारों ने बहुत ही की अवस्थाओं में से सबसे अंतिम अवस्था कहलाती है। इस अवस्था का चित्रण अनेक कहानीकारों ने वृद्ध विमर्श से संबंधित कहानियाँ लिखी है। बुढ़ापा मनुष्य पारिवारिक, सामाजिक, भावनिक यातनाओं से अवहेलना,और अनादर से त्रस्त है। आधारित कहानियाँ ऐसे ही सभी वृद्धों को समर्पित है। जो इस प्रकार के वर्ग वृद्धों की समस्याएँ, उनकी भावनाएं, उनकी शारीरिक क्षमता की शिथिलता, अकेलापन, उदासी को समझना ही नहीं चाहते हैं। आज के दौर में वृद्ध विमर्श पर पर आधारित कहानियाँ आदि। आज पाश्चात्य सभ्यता के अनुकरण के चलते युवा कहानियाँ, दलित कहानियाँ, नारी विमर्श पर आधारित कहानियाँ , किन्नर विमर्श कहानियों का स्वरूप भी बदलने लगा है। जैसे किसान-जीवन पर आधारित होने लगा।अब बदलते सामाजिक परिवेश, व्यवहार तथा समस्याओं के चलते आदि का समावेश होता है। समय के साथ-साथ कहानी की कथावस्तु में परिवर्तन वीरों की गाथाएँ, भक्ति परक कथाएँ, नीतिपरक कथाएँ, (पंचतंत्र की कहानियां कराना कहानीकार का उद्देश्य था। जिसके अंतर्गत प्रेम कथाएं, हास्य-व्यंग्य कथाएं दिलचस्प किस्से, प्रसंगों के माध्यम से पाठक या श्रोताओं को मात्र आनंद प्राप्त प्राने जमाने में किस्से कहानियाँ मनोरंजन का साधन मात्र थी। उनमें अनेक

हिंदी साहित्य विविध विमर्श

हिंदी कहानी साहित्य में वृद्ध विमर्श :

1.प्रेमचंद की 'बूढ़ी काकी' में वृद्ध विमर्श

सदस्यों की निर्दयता की पार होती हदों को भली-भांति प्रकट किया है। भूख से त्रस्त उसमें से जूठा खाना ढूंढ-ढूंढ कर खाने लगती है। यहां प्रेमचंद जी ने परिवार के खाना खा कर सो जाते हैं, तब काकी घिसटते-घिसटते झूठी पत्तलों के पास जाकर लिए देती है, जिससे काकी की भूख और भी तीव्र हो जाती है। जब घर में सब लेकिन रूपा की छोटी बेटी लाडली अपने हिस्से की पुड़ियाँ बूढ़ी काकी को खाने के बूढ़ी काकी की कोई भी खबर नहीं लेता है। और ना ही कोई उसे खाना ही देता है। उपस्थित सभी मेहमान खाना खाकर अपने-अपने घर के लिए चले जाते हैं। लेकिन काकी के प्रति अमानुषता का व्यवहार प्रेमचंद ने दिखाया है। आखिर सगाई में बंद कर देती है। असहाय बूढ़ी काकी रोती-बिलखती रहती है। यहां रूपा का बूढ़ी बेइज्जत ही नहीं करती, बल्कि उन्हें गालियां देकर घसीटते हुए कोठरी में ले जाकर तब रूपा मेहमानों की परवाह किए बिना ही उन सबके सामने ही बूढ़ी काकी को तरह-तरह के पकवान बनाए जाते हैं। बूढ़ी काकी पकवान खाने को ललचाती है तब घर में मेहमानों, रिश्तेदारों, सगे-संबंधियों का ताँता लगा हुआ रहता है। घर में हैं। बुद्धिराम के बड़े बेटे मुखराम की सगाई के समय तिलक की दावत होती है पत्नी रूपा के नाम कर देती है। आगे दोनों बूढ़ी काकी के प्रति वे लापरवाही बरतते अपना कह सके। इसलिए बूढ़ी काकी अपनी सारी जायजाद बुद्धिराम एवं उसकी भतीजा है। बूढ़ी काकी का बुद्धिराम के सिवा इस संसार में कोई नहीं है; जिसे वह दायित्व बोध को समझती है। कहानी के पात्र पंडित बुद्धिराम है जो बूढ़ी काकी का यथार्थ रूप में दर्शाया गया है। कहानी की नायिका रूपा है जो कहानी के अंत मे पर प्रकाश डाला है। इस कहानी द्वारा वृद्धों के प्रति परिवार के लोगों के व्यवहार को वृद्धा के साथ की जाने वाली उपेक्षा, अपमान, अनादर, अवहेलना,तिरस्कार आदि साहित्यकार हैं। उनके साहित्य में भारतीय समाज में व्याप्त सभी समस्याओं का कहानी है। इस कहानी में प्रेमचंद ने बूढ़ी काकी के माध्यम से परिजनों के द्वारा एक अंकन हुआ है। उनकी की 'बूढ़ी काकी' एक अत्यंत प्रासंगिक और कालजयी प्रेमचंद भारतीय समाज को दिशा देनेवाले साहित्यकारों में से सबसे प्रतिष्ठित

बूढ़ी काकी को विवश हो जूठी पत्तलों से जूठन खाने के लिए विवश होना पड़ता है

इस प्रकार प्रेमचंद ने अपनी कहानियों के माध्यम से वृद्धों की समस्या को समान के सामने प्रस्तुत किया है। 'बूढ़ी काकी' प्रेमचंद की आदर्शोन्मुख यथार्थवार्त कहानी है। प्रेमचंद द्वारा किया गया चित्रण पाठक के मन में करुणा एवं बूढ़ी काक्षी अर्थात् वृद्धों के प्रति सहानुभूति उत्पन्न करता है।

2. उदय प्रकाश की 'छप्पन तोले की करधन' में वृद्ध विमर्श :

उदय प्रकाश वृद्ध विमर्श के सजग प्रहरी हैं। उनकी 'छप्पन तोले का कर्षान्न कहानी एक वृद्धा की दयनीय दशा का यथार्थ चित्रण करती है। इस कहानी में प्रमुख पात्र बूढ़ी अम्मा है। यह कहानी इस तथाकिथत आधुनिक युग के एक मध्यवर्गीय परिवार की लोभी वृत्ति को दर्शाती है। स्वार्थलोलुपता के कारण परिवार वृद्धा के प्रति संवेदनहीन हो जाता है और बूढ़ी अम्मा की लगातार अवहेलना करता है। अप्रति संवेदनहीन हो जाता है और बूढ़ी अम्मा की लगातार अवहेलना करता है। अप्रताना सहन करने के लिए मजबूर करता है। गांववाले और परिवार वालों को यह भी अम्म है, कि दादी अम्मा जाद् टोना करना जानती है। परिवार वालों को यह भी अम्ह छप्पन तोले की करधन की लालसा में परिवारवालें दादी अम्मा को असहाय दुःख देते हैं। घर के सदस्य परिवार के पिछड़ेपण, गरीबी आदि का कारण दादी को ही मानते हैं।

करधन के लालच में दादी का बेटा भी दादी अम्मा को यातनाएँ देता है। उसे यातनाओं को ढ़ोते ढ़ोते अंतत: दादी मर जाती है। वृद्धों के प्रति अनास्था, छर्र स्वार्थ, आधुनिक जीवन की सनक, रिश्तों में पड़ती दादारें, लालसा आदि के काण मनुष्य कितना संवेदनहीन हो चला है, इस बात को उदय प्रकाश में बड़ी सजीवता के साथ अंकित किया है। प्रस्तुत कहानी वृद्धों के यातनामय जीवन का जीता जातत प्रमाण है।

3.3षा प्रियंवदा की कहानी 'वापसी'में वृद्ध विमर्श :

हिंदी साहित्य विविध विमर

उषा प्रियंवदा आधुनिक हिंदी कहानी की प्रमुख हस्राक्षर हैं। इसके साहित्य में आधुनिक जीवन के संत्रास को बखूबी उजागर किया गया है। 'वापसी' उषा प्रियंवदा की बहुचर्चित कहानी है। यह कहानी को वृद्ध विमर्श का इस्पाती दस्तावेज है। इस कहानी के माध्यम से कहानीकार ने वर्तमान समाज में व्याप्त 'जनरेशन गैप' को मार्मिक रूप में चित्रित किया है।

'वापसी' कहानी एक नौकरी से अवकाश प्राप्त व्यक्ति के टूटते सपनों की गाथा है। यह कहानी अपने ही घर के सदस्यों द्वारा अवहेलना, उपेक्षा और तिरस्कार को अभिव्यक्ति देती है। इस कहानी में वृद्धों के जीवन की मर्मस्पर्शी व्यथा अंकित है। इसमें एक अवकाशप्राप्त व्यक्ति को किस तरह परिवार के सदस्य बेकार, अनुपयोगी, घर में रहने वाला फालतू पुराना सामान की तरह समझने वाली मानिसकता को भली भांति प्रकट किया गया है। 'वापसी' कहानी के गंजाधर बाबू रेल विभाग में नौकरी से रिटायर होने के बाद अपने ही घर लौटते हैं, तब परिवार वाले उनके साथ पराया-सा व्यवहार करते हैं। वे अवकाश प्राप्त होने के कारण खुश हैं कि अब अपने परिवार जनों के साथ रहेंगे लेकिन उनके अपने ही उनके साथ अजनवियों- सा बर्ताव करते हैं। क्योंकि उन्हें वे अब एक अनुपयोगी वस्तु - से लगते हैं। और वे उनके साथ दुर्व्यवहार करते हैं। गंजाधर बाबू अनुयासन में रहने वाले व्यक्ति हैं। घरवालों को उनका अनुशासनप्रिय होना खटकता है। उनका घर में रहना भी किसी को पसंद नहीं आता। गंजाधर बाबू आखिर राजमल की चीनी मिल में नौकरी करने लगते हैं। तब भी किसी को कोई फर्क नहीं पड़ता। और एक दिन वे घर छोड़ कर चले जाते हैं। तब भी उनकी पत्नी अपने छोटे बेटे से कहती है।

" अरे नेंद्र! बाबू जी की चारपाई कमरे से निकाल दे। वहाँ चलने तक की जगह नहीं है"।

गजाधर बाबू घर से चले जाने के बाद उनकी एकमात्र पहचान चारपाई तक को घर से बाहर रख दिया जाता है। जीवन भर परिवार वालों के लिए समर्पण करने वाले गजाधर बाबू जैसे वृद्ध व्यक्ति की असहायता को यह कहानी मर्मस्पर्शी ढंग से स्पष्ट करती है।

ज्ञानरंजन की कहानी 'पिता' :

फिता कहानी वृद्धावस्था को नवीन धरातल पर चित्रित करने वाली कहानी है। यह कहानी वृद्धावस्था में व्यक्ति के स्वभाव के अंतर्गत अभिमानी, घमंडी, दुराग्रही तथा हेकड़ी पूर्ण स्वभाव को प्रतीकात्मक ढंग से उद्घाटित करती है। कहानी के पिता का स्वभाव कुछ चिड़चिड़ा, हेकड़ स्वाभिमानी है। गर्मी के दिनों में पिता को घर के सभी व्यक्ति पंखे के नीचे सोने के लिए कहते हैं लेकिन पिता अपने हठी स्वभाव के कारण अपना बिस्तर आंगन में खाट पर सिरहाने रख कर निखरी खाट पर सोते हैं। पिता का स्वभाव घर के अन्य लोगों से भिन्न, हठी प्रकार का है। जो उन्हें सही लगता है वे वही करते हैं। किसी को अच्छा लगे या ना लगे। गर्मी में पंखे के नीचे ना बैठ हाथ का पंखा झलते हैं, उसकी लकड़ी से पीट खुजलाते हैं, उन्हें गली के कुते. किराए को लेकर अक्सर बहस कर बैठते हैं, और सौदा नहीं पटा तो पैदल ही चल पड़ते हैं। पिता की इन हरकतों पर खींजते हुए कथावाचक सोचते हैं - " गजब तो पिता की जिद है, वह दूसरे का आग्रह अनुरोध माने तब ना! पता नहीं क्यों ? पिता जीवन की अनिवार्य सुविधाओं से चिढ़ते हैं"

पिता बच्चों की फिजूलखर्ची पर चिढ़ते हैं। भले ही वह फिजूलखर्ची उन्हीं के लिए की गई हो। नहाने के लिए आंगन में बैठकर नहाते हैं जबिक घर में सभी सुविधाएं हैं। घर के सभी उनकी इसी हट्टी मनोवृत्ति से परेशान रहते हैं वे कहते हैं-" मोहल्ले में हम लोगों का सम्मान है, चार लोग आया- जाया करते हैं, आपको अंदर सोन चाहिए, ढंग के कपड़े पहनने चाहिए, चौकीदार की तरह रात को पहरा देना बहुत ही भद्दा लगता है"।

पिता के लिए बच्चे तरह-तरह की आवश्यक वस्तुएं लाते हैं। लेकिन पिता उन्हें लेंने से इनकार कर देते हैं। लेते भी है तो उसे इस्तेमाल नहीं करते। पिता' कहानी अत्यंत हठी, दुराग्रही, घमंडी और उद्धत स्वभावत प्रवृत्तियों से युक्त वृद्ध पिता की कहानी है।

सूरजपाल चौहान की कहानी 'अम्मा' और वृद्ध विमर्श :

दिलत चेतना से संपन्न कथाकार सूरजपाल चौहान की कहानी 'अम्मा' एक देहाती. भोलेपन की मिसाल कहानी है। जिसमें अम्मा एक देहाती है और भोली महिला है।

हिंदी साहित्य विविध विमर्श

गांव की एक अनपढ़ और सीधी-सादी, सरल स्वभाव की स्त्री है यह। इस कहानी में उसके देहातीपन के अनेक किस्से हैं। भारतवर्ष के देहाती परिसर में रहने वाली निरक्षर किंतु भोली भाली वृद्ध महिलाओं का प्रतिनिधित्व करती 'अम्मा' कहानी वृद्ध विमर्श का एक नया आयाम प्रस्तुत करती है।

मन् भंडारी की कहानी 'अकेली' में वृद्ध विमर्श :

इस कहानी की प्रमुख पात्र सोमा बुआ है। इस कहानी में सोमा बुआ के अकेलेपन के दुख को अभिव्यक्त किया गया है। सोमा बुआ एकदम अकेली है। पित है जो उसे अकेली छोड़ कर हिरद्वार चले गए हैं। एक बेटा था वह भी मृत्यु को प्यारा हो गया, सो बुआ अकेली रह गई है। पित भी साल के ग्यारह महीने हिरद्वार में और एक महीना बुआ के साथ रहते हैं। उस पर भी वे अपनी पत्नी को बात- बात पर डांटते, टोकते रहते हैं। उनके रहने पर भी सोमा बुआ का कोई नहीं होता, जिससे वे अपना दुख-दर्द बांट सके। सो बुआ ने अपने आपको समाज को सौंप दिया है। बुआ शादी-व्याह के कार्यों में अपना मन रामा लेती है। पास-पड़ोस के लोगों के भरोसे अपना समय काट लेती है। किसी के घर कोई भी काम हो या शादी-व्याह, मन लगाकर करती है। जैसे उसके ही घर का कार्य हो। कोई उन्हें टोकता तो वह कहती- "इन्हें तो नाते- रिश्ते वालों से कुछ लेना देना है नहीं, पर मुझे तो सबसे निभाना पड़ता है"। यह कहानी बुद्धा सोमा बुआ के एकाकीपन के दुख को व्यक्त करती मार्मिक कहानी है।

भीष्म साहनी की कहानी 'चीफ की दावत' और वृद्ध विमर्श :

कहानी का केंद्रीय पात्र मिस्टर शामनाथ, शामनाथ की बूढ़ी मां, श्यामनाथ की पत्नी और उसका बॉस (चीफ) है। शामनाथ नौकरी में तरक्की के लिए अपनी मां को जिरया बनाता है। मां बूढ़ी है, उसकी आंखें धुंधला गई है। आंखों से दिखाई नहीं देता, बाल बिखरे हैं, कानों से ठीक सुनाई नहीं देता। रात- दिन भगवान के नाम की माला जपती रहती है। वह गांव की सीधी- सादी, भोली वृद्धा है। वह फुलकारी बनाने में निपुण है लेकिन आंखों से दिखाई नहीं देने के कारण भी वह अपने बेटे की तरक्की के लिए बॉस के आग्रह पर फुलकारी बना कर देने का वादा करती है। बाॅस को खुश करने के लिए बेटे के आग्रह पर वह लोकगीत गाकर सुनाती है। जो माँ, शामनाथ को हमेशा हीन,तुच्छ और हंसी का पात्र प्रतीत होती थी। जिसे

हिंदी साहित्य विविध विमर्श

शामनाथ अकुशल एवं आधुनिकता के ज्ञान में शून्य मानता था। वही मां अंत में शामनाथ अपुरारा राजा वाद लगा देती है एवं शामनाथ की तरक्की का पुख्ता माध्यम बनती है। इस कहानी में वृद्धों की आवश्यकता एवं महत्व का प्रतिपादन किया गया है।

निष्कर्षः

आज मनुष्य पाश्चात्य सभ्यता की अंधी दौड़ में दौड़ते- दौड़ते अपने संस्कार, अपने सगे-संबंधियों को, उनकी भावनाओं को, संवेदनाओं को पीछे छोड़ता चला जा रहा है। अपने कर्तव्यों को, दायित्वों को निभाना शर्मनाक समझता है। मन्ष्य स्वार्थ लोलुप होता जा रहा है। जहाँ स्वार्थ दिखाई देता है, वहां पर अपने ईश्वर समान माता-पिता को तक दांव पर लगा देता है। और जब उनसे कोई लाभ दिखाई नहीं देता। तब उनकी अवहेलना, उनका अनादर, उनके साथ दुर्व्यवहार करता है। उनकी मात्र उपस्थिति भी उसे खलती है। यह निश्चित रूप से भारत जैसे शादी और परिवार का महत्व समझने वाले संस्कार संपन्न देश के लिए निश्चय ही अच्छी बात नहीं है।

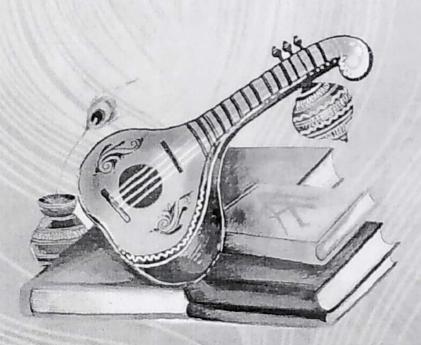
बुढ़ापा यह मनुष्य जीवन की अंतिम अवस्था होती है। इस अवस्था में व्यक्ति का आचरण कुछ बदल जाना स्वभाविक होता है। लेकिन जिस अवस्था में अपने परिवार वालों के सानिध्य की आवश्यकता होती है, उसी समय परिवार वाले उन्हें अकेला छोड़ देते हैं। उनकी अवहेलना करते हैं। यह और ऐसी अनेक संवेदनाओं को अंकित करती अनेक कहानियाँ आज हमें समाज में स्थित हर धर्म और समुदाय से संबंधित परिवारों मे दिखाई देती है।

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(रिसर्च पेपर)

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सहसंपादक

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प्रथमावृत्ती : १ मे २०२३

ISBN-978-81-928887-4-11

अक्षरजुळणी व मुखपृष्ठ : सौ. राजश्री राजेंद्र जाधव, पुणे

प्रकाशक व मुद्रक डॉ. उमा काळे-माळी मारुती माळी

ज्ञानसूर्य प्रकाशन

सर्व्हें नं. २१५, गंगानगर, पोस्ट फुरसुंगी,

ता. हवेली, जि. पुणे - ४१२ ३०८

भ्रमणध्वनी : ९७६५९०४१०३ /९०७५७४९१५४

Email: umakaleswati@gmail.com

dnyansuryapublication@gmail.com

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'कलावंताच्या आकांता'ची व्यथा : 'नटरंग' (शब्दकृती व चित्रकृती)

प्रो. डॉ. गणेश देशमुख

प्रस्तावना:

३ मे १९१३ रोजी 'राजा हरिश्चंद' हा चित्रपट 'दादासाहेब फाळके' या मराठी माणसाने अथक प्रयत्नांनी बनवून प्रकाशित केला व भारतीय चित्रपटसृष्टीची मुह्र्तमेढ रोवल्या गेली. त्यामुळे मराठी चित्रपटसृष्टीही समृद्ध झाली. ६ फेब्रु १९३२ ला 'अयोध्येचा राजा' हा पहिला मराठी बोलपेट आला नि ही परंपरा अधिक संपन्न होत गेली. य. गो. जोशी, ना. हा. आपटे, महादेवशास्त्री जोशी, प्र. के. अत्रे, अण्णाभाऊ साठे अशा किती तरी लेखकांच्या साहित्यकृतीवर स्वातंत्र्यपूर्व काळात चित्रपट निर्माण झाले. ऐतिहासिक-पौराणिक विषयाकडून अर्वाचीन विषयांकडे वाटचाल करीत असतानाच ग. दि. माडगूळकरांच्या लेखणीतून 'जय मल्हार' हा पहिला ग्रामीण चित्रपट १९४७ यावर्षी चित्रभूमीवर आला, आणि त्यानंतर व्यंकटेश माडगूळकर, शंकर पाटील, द. मा. मिरासदार, अण्णाभाऊ साठे वगैरे अनेकांच्या साहित्यकृती व लेखणीतून अनेक ग्रामीण चित्रपट निर्माण झाले. या परंपरेतील 'नटरंग' हा अलिकडेच आलेला चित्रपट, कलावंताच्या 'आकांत' ची, लोक कलावंताच्या दुःखाची 'कथा' प्रकट करणारा आहे. ललित कलेतील साहित्य, नृत्य, संगीत, नाट्य इ. कला व विज्ञान-तंत्रज्ञानाच्या प्रभावातून निर्माण झालेली 'चित्रपट' ही आधुनिक युगातील सर्वाधिक प्रभावी व कमालीची संवेदनशील 'सहावी' कला. या कलेमध्ये 'साहित्य' प्रधानता असली तरी इतर घटकही तेवढेच महत्त्वाचे असतात. लेखक जे त्याच्या 'शब्दकृती' मधून सागू इच्छितो ते 'चित्रकृती' मध्ये बांधून त्यांचा निर्माता व दिग्दर्शक प्रेक्षकांपुढे सादर

। १४६ । आंतरविद्याशाखीय विचार प्रवाह ।

करीत असतो. मात्र हे 'माध्यमांतर' होत असल्याने त्या त्या माध्यमाचे सामर्थ्य व मर्यादा लक्षात घेऊन त्याकडे बघावे लागते. 'प्रत्येक सादरकर्ता हा अनिवार्यपणेच सह लेखक असतो आणि आशय विकसित करीत असतो' र

ही बाब प्रमाण मानून 'नटरंग' या कादंबरी व चित्रपटाकडे 'शब्दकृती' व 'चित्रकृती' म्हणजेच 'संहिता' व 'सादरीकरण' या भूमिकेतून बघणे आवश्यक ठरते. त्याचवेळी 'चित्रकृती' निर्माण करण्याच्या प्रयोजनातून निर्माण झालेली 'शब्दकृती' (पटकथा + संवाद) व केवळ 'शब्दकृती' म्हणून निर्माण झालेली 'संहिता' (कथा-कादंबरी त्यातील भेदाचे भानही राखावे लागते. यादृष्टीने 'नटरंग' या कादंबरी- चित्रपटाचा विचार येथे केला आहे.

।। १।। कादंबरी ।।

कालानुक्रमे एकलकोंडा (१९५९) गोतावळा (१९७०) नंतर लिहिलेली नटरंग (१९८०) ही आनंद यादवांची लेखन-क्रमानुसार लिहिलेली तिसरी कादंबरी. त्यापैकी 'गोतावळा' प्रथम तर नंतर 'नटरंग' प्रकाशित झाली. या तीनही कादंबऱ्या प्रकृतीने गंभीर व शोकात्म आहेत. 'एकलकोंडा' ही नवसाक्षर बेकार ग्रामीण तरुणाची तर 'गोतावळा' ही कृषिसंस्कृतीच्या पराभवाची व नारबाची (शेतमजूराची) शोकांतिका आहे. 'नटरंग' ही प्रथमदर्शनी 'नाच्या' ची मात्र अंतिमतः कलावंताला कलेसाठी कराव्या लागणाऱ्या 'आकांता'ची शोककथा आहे. 'गोतावळा', 'एकलकोंडा' मधील शोकांतिका बाह्य परिस्थितीतून उद्भवलेली आहे. 'नटरंग' चे मात्र तसे नाही. 'कलावंता' चे 'मन कोणीच समजून घेत नाही, व्यावहारिक जगात व स्वार्थात गुंतलेली माणसे त्याची 'कला प्राप्ती' साठी चाललेली धडपड, तगमग समजून घेत नाहीत व कलेशी निष्ठा राखणारा कलावंत व्यावहारिक, तडजोडी स्वीकारत नाही, त्यातून ही शोकांतिका आकारते.

या कादंबरीचे कलाबीज त्यांनीच १९७३ ला लिहिलेल्या 'रात घुंगराची' या वग नाट्यात आहे. आनंद यादव त्याबद्दल लिहितात, हे वगनाट्य लिहीत असताना त्यात जे नाच्याचे पात्र घातले आहे. त्यावरून 'नटरंग' कादंबरीची बीज कल्पना माझ्या मनात रुजली. या वगनाट्यातील 'रंग्या' हा 'नाच्या' गुणाची व्यथा प्रकट करीत असला तरी तो या कादंबरीच्या निर्मितीला 'निमित्त'

। आंतरविद्याशाखीय विचार प्रवाह । १४७ ।

मात्र आहे. आनंद यादवांना त्यापुढे जाऊन एकूण कलावतांची शोकांतिका येथे प्रकट करावयाची आहे. त्याच मुळे 'नटरंग' ची निर्मिती प्रक्रिया स्पष्ट करताना ते म्हणतात, आता इथे 'नाच्या' हा नाच्या म्हणून गौणत्वाकडे जाऊ लागला आणि तो एका कलावंताचे मूलभूत प्रतीक म्हणून माझ्या मनापुढे येऊ लागला. त्या विशिष्ट 'नाच्या'ला 'कलावंत' या विश्वात्मक व्यापक संकल्पनेत मी पाह् लागलो " त्यावरून त्याची साक्ष पटते व या कादंबरीचे निर्मिती प्रयोजन लक्षात येते. मराठी समाजात, विशिष्ट कालखंडातील सामाजिक वास्तव घेऊन, त्यानिमित्ताने कलावंताच्या जीवनातील एका शाश्वत सत्याचे दर्शन घडविणारी ही साहित्यकृती त्याचमुळे अनेकांच्या आकर्षणाचा विषय झाली. स्वातंत्र्योत्तर कालखंडात यंत्रयुग, विज्ञान-तंत्रज्ञान इ. अनेक कारणांनी ग्रामीण समाजातील 'बलुतेदारी' व बलुतेदारांचे जीवन पूर्णपणे उद्धुस्त झाले. त्या पार्श्वभूमीवर 'कागल' गावच्या मांगवाड्यात बेकारीच्या व उपासमारीच्या विळख्यातून सुटून आपल्या उदरनिर्वाहासाठी तमाशाचे फड उभे करताना व मोडताना स्वत: लेखकाने पाहिले. त्यांच्या तालमी पाहिल्या-अनुभवल्या. 'तमाशा' या कलेकडे समाज कोणत्या भूमिकेने बघतो त्याची कल्पनाही त्यांना होती. त्या पार्श्वभूमीवर त्यांनी 'नटरंग' साकारण्याचा प्रयत्न केला. तिचे स्वरूप थोडक्यात पुढीलप्रमाणे.

'नटरंग' ही १९८० ला मौज प्रकाशनातर्फे प्रकाशित झालेली १८७ पृष्ठांची कादंबरी. कादंबरीत कादंबरीत एकूण आठ-नऊ वर्षाचा कालपट असून कादंबरीचे दोन भाग आहेत. भाग एकमध्ये एकूण अठरा प्रकरणे असून त्यात 'फड' ऊभारण्याच्या कल्पनेपासून प्रत्यक्ष पहिल्या प्रयोगापर्यंत व गुणाच्या विडलांच्या मृत्यूपर्यंतचा कथा भाग आहे तर भाग दोन मध्ये फडाच्या उभारणीनंतर सर्वांना आलेला उत्साह, दोन वर्षांनंतर होऊ लागलेले नाव, व शेवटी 'फड' व सर्वस्व' उद्धुस्त झालेल्या गुणाची भीषण, सुन्न करणारी अवस्था, हा सारा कथाभाग आला आहे. कादंबरीचे दोन भाग करण्याचे कारण मध्ये काळाचा 'अवकाश' लेखकाला सूचवायचा असून एक 'पर्व' संपले आणि दुसरे 'पर्व' सुरू झाले हे लेखकाने सूचिवले आहे.

'नटरंग' चे कथानक जाणकार वाचकांना माहीत आहे व चित्रपटामुळे ते आता सर्वश्रुतही झाले आहे. त्यामुळे येथे ते संक्षेपाने नोंदवितो.

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गुणा हा 'शेतमजूर' म्हणून काम करणारा खेडचातील तरुण, त्याला जत्रा, तमाशा, सिनेमा, वाचन याचा नाद, त्यामुळेच 'सुरकूड' च्या जत्रेत तो आठवड्याची 'कमाई' घेऊन मजा करण्याचे स्वप्न रंगवित काम करतो. मात्र मालक त्याच्या हाती 'निम्मेच पैसे ठेवतो. तरीही तो हिरमुसत नाही, कल्पनेच्या विश्वास रमताना त्याला बरे वाटते. तो जत्रेला जातो, तमाशा बघतो, येताना त्याच विश्वात तरंगत, संवाद म्हणत परततो व दुसऱ्या दिवशीही कामाला जात नाही. घरात आंधळी आई (बायनी) बाप (बाळू) पत्नी (दारकी) व एक मुलगा (राजा) इतर मुले (माया, दया, रंजा) आहेत. बाळूचा परंपरागत व्यवसाय नाडासींदूर, दावी, फंड, कासरं बनविण्याचा, तो इंजिन व मोटारीमुळे उद्ध्वस्त होतो व तोच नव्हे तर संपूर्ण मांगवाडा त्यामुळे 'येडबडून' जातो. मोठा मुलगा यशवंता मिलिटरीत गेला व तिकडेचे लढाईत मेला. दुसरा लहानपणी वारला. आता शेवटच्या पोराला 'गुणा'ला तो शाळेत घालतो. परंपरागत धंद्यात ओढत नाही. मात्र 'गुणा' सात-आठ वर्षे शिकतो व शाळा सोडतो. बाळू त्याला गावच्या वाचनालयात नोकरी लावतो, मात्र ती ही दुसऱ्या वर्षी जाते. त्यात 'गुणा'लाही रस वाटत नाही. 'बांधल्यागत' होते. मात्र वाचनाचा नाद जडतो. भाऊ गेल्यानंतर म्हातारा, म्हातारी व पत्नी-मुले या सर्वांची जबाबदारी त्याच्यावर येते व तो मजुरी करतो. वाळू मांग तसा नामांकित वतनदार, राजाच्या दरबारी त्याला मान, मात्र काळ बदलतो. बाळू अगतिक होऊन 'गुणा' वर अवलंबून राहतो.

दारकी, गुणा घरादारासाठी राबतात. मात्र 'गुणा' ला त्या रावण्यात रस नसतो. त्याला 'मूक्त' पणा हवा वाटतो, कसलीतरी 'अस्वस्थता', व्याकुळपणा त्याला घेरते.

एक दिवस तो रात्री आंब्याच्या बागेत गेला असताना त्याचे मित्र शंकर, वसंता, किसन, धामुड्या पाव्हणा, नाना, विष्णू यांना सिनेमा व विशेषतः तमाशातील राजा-प्रधानाचे संवाद, सोंगाडयाच्या गमती-जमती, सांगत असताना त्याला 'आपणच तमाशा काढायचा' ही कल्पना सूचते व बेकारीला कटांळलेली मांगवाड्यातील ही सर्व तरुण मुले त्याला होकार भरतात.

सगळ्यांना तमाशाचा फड उभा करण्याची कल्पना आवडली असली तरी

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गुणा ! सर्वांना 'खंडुबा' व 'गैबी' ची शपथ घ्यावयास लापतो. त्याच्या मनातील कलावंताला वाट सापडते. फड़ासाठी डफ, तुणतुणे, पेटी, ढोलकी वगैरे साहित्य मिळविण्याचा प्रयत्न केला जातो. बगाच्या लेखनाची जबाबदारी स्वतः 'गुणा' घेतो व आठ दिवसात अर्धा वग लिहितो. मात्र 'साहित्य' जमा होत नाही तो शेतात काम करताना 'लावणी' ची जुळवाजुळव करतो, त्यात रमू लागतो. फडासाठी लागणाऱ्या सामानाची जुळवाजुळव होत नाही व शेवटी तमाशात काम फडासाठी लागणाऱ्या सामानाची जुळवाजुळव होत नाही व शेवटी तमाशात काम केलेला 'पांडबा' मदतीला येतो. प्रत्येक जण वर्गणीसाठी 'चोरी' करू लागतो, त्यातून 'सामान' घेतले जाते. वग पूर्ण होतो व 'गुणा' रात्रभर तालमीला जागून सकाळी शेतावर कामाला जातो, तमाशाच्या फडाची ही गोष्ट 'बाळू' च्या कानावर जाते. कधीकोळी संपूर्ण मांगवाड्यावर राजाचा 'माणूस' म्हणून साम्राज्य करणाऱ्या 'बाळू' ला 'गुणा' चा हा नाद आवडत नाही. त्या ची तगमग, घुसमट सुरू होते. दारकी ही त्याला विरोध करते. मात्र तरीही 'गुणा' आपल्या निर्णयावर ठाम राहतो. तालमींलामध्येच अडथळे येतात..

पांडवाच्या आईचा मृत्यू, सतत कोसळणारा पाऊस इ. अनेक कारणांनी त्या बंद होतात. तरीही 'गुणा' सगळ्यांना एकत्र करतो, धडपडतो. व पांडबाप्रमाणेच आपणही 'उरुसा'ला तमाशाचा प्रयोग करण्याचे ठरवितो. मात्र पुन्हा तमाशात 'मुली' नसल्या तर कोण बघणार ? मृणून मुलीचा शोध सुरु होतो. जोगतिणी, मुरळ्या, ठेवलेल्यांच्या अशा कोणत्याही मुली आसपास शोधा, मांगेवाडे पालथे घाला, नंतर मी त्यांना आणतो असे 'पांडबा' म्हटला असला तरी 'गुणा' व त्याचे मित्र कसून शोध घेण्याच्या प्रयत्नात शिण्या व शेवटी मार खातात.

उपाशीपोटी त्यासाठी प्रयत्न करणान्या 'गुणा' ला आपल्यातील 'राजा', 'वग', 'कलावंत' बाहेर काढण्याची घाई होतो. मात्र कुटुंबाच्या जबाबदारीमुळे पुन्हा तो हतबल होऊन मालकाकडे जातो. इतरांप्रमाणे 'बिनबायकांचा तमाशा' उभा करू पाहणाऱ्या 'गुणा' ची मालकाचा मुलगा 'शिर्पा' चेष्टा करतो. तरीही पोटासाठी लाचार झालेका 'मनातल्या मनात तमाशा करायचा व आपणच पाहायचा' असे उत्तर देणारा 'गुणा' पत्नी गर्भार असल्याने आणखी अगतिक होत जातो व स्वतःला शेतीच्या कामात गुंतून घेतो. तालिम पुन्हा थंडावते.

अन तिकडे बैलाचे हेडेपण करणारा पांडबा कोल्हापूरला गेल्यायानंतर

। १५० । आंतरविद्याशाखीय विचार प्रवाह ।

त्याची भेट कुपवाडच्या तमाशात सोबत काम केलेल्या यमुनाबाईशी होते. विचारपूस केल्यानंतर त्याला कळते की, बाईचा नवरा मृत्यू पावला असून तिला दोन तरुण मुली आहेत व त्या गणपतीच्या समोर डान्स मेळ्यात काम करतात. त्याला जुने दिवस, आठवतात, ढोलकी कानात घुमू लागले व गावातल्या पोरांच्या तालमीची आठवण येताच तो आनंदतो. घरी आल्यानंतर तो तालमीला जातो व मुलांना ही बातमी देतो. विझत चाललेल्या गुणाच्या मनावरील 'गुल' उडतो व तो पुन्हा पेटतो. मुलांनाही उत्साह येतो. पुन्हा तालमीला जोर चढतो व ढोलकीचा आवाज कानी पडताच 'बाळू' पुन्हा तमाशा सुरू झाल्याने कातावतो.

नंतर पांडबा दोन वेळा यमुनाबाईकडे जाऊन तिला समजावतो व मुलींना कागलच्या तमाशात काम देण्यास तिसऱ्या वेळी यमुनाबाई तयार होते. व एक दिवस मुलीसह ती पांडबाच्या घरी येते, रात्रभर मुलाची तालीम बघते. तिच्या मुली नयना-शोभना व गुणा-नानां एकमेकांना मनाने ओढून तमाशात आणतात. व रमून जातात. दोन-तीन दिवसांनी पांडबा व गुणा त्यांच्याशी बोलणी करायला गेल्यानंतर हुशार व अनुभवी असणारी यमुनाबाई, मुलींना बाहेर पाठवून आपल्या अटी सांगते. त्यामध्ये 'एकूण मिळणाऱ्या पैशाचा दहावा हिस्सा तीन वर्षे मला व उरलेल्या पैशाचे दोन हिस्से करून त्यालील एक मुलींना व दुसऱ्या इतराना, फडाला वर नयना शोभनाचे व खाली तुमचे नाव राहील' अशा अटी ऐकून व नंतर होणारी घासाघीस बघून गुणाचा जीव गुदमरतो- मात्र, शेवटी 'स्वप्न' साकारणार या आनंदात असणाऱ्या गुणाला बाहेरून आलेली 'नयना', 'तमाशात सौंगाडया बरोबर नाच्या पाहिजे' ही अट घालते आणि 'गुणा'च्या पुढील शीकांतिकेचे बीज रोवले जाते.

'नाच्या' असल्याशिवाय नयना- शोभना नाचणार नसल्याने पुन्हा सर्वजण चिंताक्रांत होतात. 'गुणा' इतर मित्रांचा विचार करतो, मात्र त्यातील काही नकार देतात तर काही शोभणार नसतात, 'फलक्या दिन्यांही नकार देऊन रागावतो. सर्व घडी बसत असताना पुन्हा विस्कट पाहते. शेवटी काहीच पर्याय दिसत नसल्याने विष्णु 'गुणा' ला 'हे काम तूच का करत न्हाईस'? असे धाडस करून बोलतो तेव्हा फड उभारणीसाठी, मनातल्या 'राजा' साठी आपण काय-काय केले हे तो

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रागावून सगळ्यांना सांगतो. शेवटी हमरीतुमरीवर प्रसंग येतो व नाना तालीम उद्या सांगून निभावून नेतो. रान्नी डोळे मिटून पडल्यानंतर एक-एक प्रसंग, प्रत्येकाची अडचण त्यांच्या लक्षात तो मनातल्या मनात भांडतोही, ज्याला त्याला एकच भय, 'लोक फलकं म्हणतील', ही सर्व पोट भरण्यासाठी तमाशात आली. आपल्यालाच खाज... काही झालं तरी मी 'राजे' पद सोडणार नाही... मला नाच्या' हो म्हणतात..' तो निश्चय करतो. दुसऱ्या दिवशीही तो प्रयत्न करतो, कोणीच तथार होत नाही. घरी परतताना त्याच्यासारखाच अगतिक झालेला पांडबाही त्यालाच 'नाच्या हो, 'राजाचे काम कुणी करेल, नाच्याचे काम अवघड, ती क्षमता फक्त तुझ्यातच आहे'. वगैरे म्हणतो व धडावरनं शिर उडविल्यागत तो ओरडतो व नंतर गंभीर दगडागत होतो. बायकोपुढे जेवताना आपण तिच्या पासून दूर चालल्याची जाणीव त्याला होते. दुसऱ्या दिवशी उदास वाटते ... घरचे लोक... काय म्हणतील? 'फलक गुण्या, पावण्याट'... तमाशा मोडण्याचे तो उरवितो पण 'मनातल्या 'वगा'चे काय? कायमचा आत!' विचार करून त्याच्या हातापायातील बळ जाते... रात्री पांडबाला सर्व सांगतो, मनातलं बोलतो. पांडबा त्याच्या मनातील भीती घालवतो आणि तो अगतिक होऊन 'होकार' देतो.

दुसऱ्या दिवशी सर्वांना आनंद होतो. यमुनाबाईला निरोप, नयना-शोभनाला पाठांतराच्या वह्या पाठविल्या जातात. वगात 'नाच्या' चे नवे पात्र येते. उरुसात तमाशाचा प्रयोग ठरतो. नयना शोभना आठ दिवस तालिमीस येतात, नयना त्याला 'नाच्या' चे काम, हातवारे, पावलं, गिरक्या, बायकी नखरा, शिकविते. पहिलवान असणारा 'गुणा' आरंभी आकसतो मात्र हळूहळू शिकतो. रंगीत माहित होते. नयना- शोभनाला निरोप दिल्यानंतर 'गुणा'च्या लक्षात येते की, 'नाच्या'च्या कामात अभिनयाचा खरा कस आहे, 'राजा' नाही तरी 'नयना'च्या रूपाने मनातील तारामती बाहेर येतेय... तिच्यासाठी हे केले पाहिजे, आणि त्याच्या शोकांतिकेला नवा धुमारा फुटतो.

पांडबा तयारीला लागतो, गावभर 'फडा'ची बातमी पसरते, वेगळेच वातावरण तयार होते. प्रयोगाला तीन दिवस शिल्लक असताना यमुनाबाई मुलीसह कागलला येते. सगळेच उत्साहाने कामाला लागतात, गुणावर पत्नीच्या

। १५२ । आंतरविद्याशाखीय विचार प्रवाह ।

बाळंतपणाची जबाबदारी... त्यात गुणाने 'मिशा' काढलेल्या, ते सर्व बघून 'बाळू' पुन्हा चिडतो, आतल्याआत धुमसत असणारा 'गुणा' बापावर 'पाटा' घेऊन धावतो, दारकीला मारहाण करून सर्वांना लाथाडून घराबाहेर जातो. तालिम, (रंगकाम, पोशाख करून) सुरू होते, त्याच्या कामाला टाळ्या मिळतात. पांडबाला 'कृतार्थ' वाटते. 'गुणा' च्या घोंगड्यावर सगळा फड वाटेल तसा नाचतो, त्याला पायदळी तुडवितो.

या सगळ्यात घरी आल्यावर 'घरचं' ध्यान येत. पुन्हा वादविवाद, सकाळी मळा, कष्ट, मात्र 'गुणा' ला ना झोप, ना शिणवटा, ऊशीर झाल्यानं मालकाने हाकलून द्यायची-गोष्ट करताच तो पुन्हा लाचार... घरी गेला तर सासरा आलेला, त्याला 'तमाशा'ची गोष्ट माहीत झालेली. त्याचाही विरोध होतो पण न जुमानता 'गुणा' तालमीस निघतो.

शेवटी तमाशाचा दिवस उगवतो. गणानंतर 'गवळणी'च्या चोळी-लुगड्यात वावरावं लागणार, या कल्पनेनेच त्याला घाम आलेला पण हिंमत बांधली. लुगड्याला 'रंगीत' धोतर समजून ते परिधान केले, गुणाची गंगी' कलेसाठी अवतरली. गण, गवळण, झाली, 'गुणा'ची भीड चेपली... अंग हलकं हलकं होऊ लागलं. तमाशासाठी गर्दी झालेली. शेवटी एकदाचा प्रय़ोग निर्विघ्न पार पडला. लोकांनी फडासाठी मदत दिली, सगळ्यांना धन्य धन्य वाटले, इकडे रात्री 'दारकी' बाळांत होते. 'तमाशा' बघायला गेलेला सासरा 'गुणा'ला गर्दितून कुणी 'फलक' म्हणतो, ते ऐकून अस्वस्थ होतो. सकाळी व्याही व्याही बोलतात, चिडतात 'गुणा' परत आल्यानंतर सासरा प्रथम समजावणीच्या व नंतर निर्वाणीच्या स्वरात बोलतो. शेवटी 'तमाशा सुटला तर माझा जीव जाईल' हे गुणाचे शेवटचे उत्तर ऐकून तो रागावून न जेवता निघून जातो. 'बाळू' ने तर त्याचे तोंड पाहणेही सोडलेले. दुपारी जेवण झाल्यावर तो यमुनाबाई व मुलींना स्टॅण्डवर गाडीत बसून नानाच्या खोलीवर आडवा पडतो, तेवढ्यात बाहेर बोंब उसळते, 'आंबयाच्या बागेत गुणाच्या म्हाताऱ्यानं फास लावून घेतला' 'गुणा' गर्दीत घुसूडून झाडाला हिसका मारून त्याला सोडवितो. मात्र तोपर्यंत म्हातारा 'थंड झालेला.... 'गुणा' च्या दुर्देवाला आरंभ झालेला, येथे प्रदीर्घ वाटणारा पहिला भाग संपतो.

। आंतरविद्याशाखीय विचार प्रवाह । १५३ ।

दुसरा भाग सुरू होतो तेव्हा मध्ये दोन वर्ष गेलेली, याकाळात त्यांच्या दुसरा भाग सुरू होतो तेव्हा मध्ये दोन वर्ष गेलेली, याकाळात त्यांच्या 'फडा' चे अनेक ठिकाणी प्रयोग होतात, कोल्हापूर पासून नागपूर पर्यंत 'फडा' चे 'फडा' चे अनेक ठिकाणी प्रयोग होतात, कोल्हापूर पासून नागपूर पर्यंत 'फडा' चे अनेक ठिकाणी प्रयोग सुखाला लागलेली. गुणाने 'तीन' वग लिहिलेले, नाव होते, प्रसिद्धी मिळते, सगळी सुखाला लागलेली. गुणाने 'तीन' वग तिहलेले, न्या सर्वात नयनाचा अभिनय बघून तो तिच्याकडे खेचला जातो. त्यातच पुण्याला त्या सर्वात नयनाचा अभिनय बघून तो तिच्याकडे खेचला जातो. त्यातच पुण्याला 'त्याशा परिषदेचे' चे आमंत्रण मिळते. 'हो' – 'नाही' म्हणत जायचे ठरते. परिषदेत त्याला 'नटराजा' ची मूर्ती देऊन सत्कार होतो. उत्तर देताना तो 'नयना' चा उल्लेख करतो व परतानाही गाडीत तो 'कृतज्ञता' व्यक्त करतो व एकटाच 'नटराजा' शी बोलतो. 'नटेश्वराला 'बळ' आणि 'ताल' देण्याची विनंती करतो...? उत्तरार्धात अशा सर्व घटना वेगाने घडत जातात. वेगवेगळ्या ठिकाणचे प्रयोग, वग, नयनाचे तेज, डौल बघून तिच्यात तो गुंतत जातो... मनातील भावना व्यक्त करण्याचा प्रयत्न करतो, तेवढयात तोंडावर आलेल्या पावसाळ्यामुळे पाऊस सुरू झाल्याने 'फड' बंद करून सगळे गावाकडे निघतात.

गावात शिरताना 'गुणा' ला त्याच्यातील पुरुष जाणीवपूर्वक बाहेर काढावा लागतो एवढा तो 'नाच्या' त रंगून जातो. घरी आल्यावर जुने घर तोडून नवें घर बांधतो, संसाराची नव्याने मांडामांड करतो. दारकी 'बसून' खाऊ लागते. तिला दुसरा मुलगा होतो व 'गुणा' ऑपरेशन करून घेतो. दारकीचा पुन्हा 'तमाशा' ला विरोध लाथाडून तो पुन्हा दौऱ्यावर निघतो.

'सागोल्या'ला फड असताना नयना आजारी पडते. तिला एकांती भेटून तो मनातले बोलतो, 'जलमभर' तिने सोबत करावी, कारण ती ही 'कलावंत' आहे. तिने त्याच्यातील 'कलावता' ला ओळखलेय, पत्नी असली तरी तिथे सुखाने संसार करूं असा प्रस्ताव ठेवतो. महिन्यानंतर एका खेडेगावात मुक्कामी असताना त्याला 'बृहन्नडा-उत्तरा' वग सूचतो, त्यात दोघांची मुख्य कामे. 'गुणा' अर्जुन व बृहन्मडा, वगानंतर लोकांची दृष्टी बदलेल असे त्याला वाटलेले. म्हणून तो शेवटी 'नयना' ला 'जल्मभर' सोबतीचे विचारतो व नयना, 'आपले त्याच्यावर प्रेम आहे, 'पर सारा जलम नाच्यासंगं काढावा असं वाटत न्हाई?' हे कारणासह स्पष्ट करते. जोडीदार म्हणून त्याच्या सोबत रहायला तयार आहे. पण नाच्याचे 'म्हातारपण' वाईट, भयानक, एकाकी, त्यामुळे त्याला नकार देते आणि गुणा आतृन ढासळून जातो. त्याचे 'कलावंत' पण कोणीच समजून घेऊ शकत नाही.

। १५४ । आंतरविद्याशाखीय विचार प्रवाह ।

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तो उदासतो, अबोल होतो.

इकडे 'शिर्पा' त्याची गावात 'फलका' म्हणून झालेली बदनामी ऐकून 'दारकी' वर जबरदस्ती करण्याचा प्रयत्न करतो मात्र त्याला 'दाद' देत नाही, उतर बोंब करील म्हणून धमकावते. पावसाळ्यात 'गुणा' घरी आल्यानंतर 'दारकी' त्याला हे समजावण्याचा प्रयत्न करते, 'राजा' ला मुले नाही नाही ते प्रश्न विचारून भंडावतात, त्याच्याविषयी नको त्या अफवा पसवितात, कारण गाव -समाज समज करून घेते 'गुणा' फलका (पुरुष नाही) आहे. मात्र गुणास फरक पडत नाही. 'नयना'च्या नकारानंतर तो अधिक अबोल होत जातो. मधल्या सहा वर्षांत फडात काही मुली, दादू ढोलकीवाला दाखल होतात. यमुना-नयनांचा फडावर प्रभाव वाढतो चिंध्या एक दिवस 'दादू' गुणावर अतिप्रसंग करण्याचा प्रयत्न करतो. तो 'गुणा' शिताफीने टाळतो. मात्र तरीही 'दाद्'ची कल्पना (त्याच्याविषयी) दृढ स्त्रिया चेष्टा करतात. तर तिकडे दादू, विष्णु, किसना, वसंताही त्यात सामील होतात. बायको त्याचा घरातील फोटो काढून ठेवते. सर्व बाबींचा 'गुणा' वर ताण येतो.. पावसाळ्यानंतर दोऱ्यावर जाणाऱ्या नवऱ्याला 'दारकी' आपल्या मनाची चारी बाजूनं लांडगं आल्या गत हुतंय मला ही अवस्था स्पष्ट करूनही गुणा उत्तरतो, नवरा मेलाय असे समजायचं नि निधड्या छातीच्या बाईगत वागायचं, त्यावर ही त्याच्या 'नाचेपणा' वर घसरते.

नंतरच्या मोसमास त्याचा 'बृहन्नडेचा' वग पूर्ण होतो. शिंदेवाडीला असताना कुडचीचे माने तंबूत येतात व दोन नंबरच्या 'बाळासाहेब' या मुलाच्या लग्नाच्या दुसऱ्या दिवशीची 'सुपारी' घेण्याचा प्रस्ताव ठेवतात. ती 'सात' तारीख कोपरवाडीच्या मोरे साहेबांनी घेतलेली. दोघे विरोधक, माने साहेब 'सुपारी' व लग्नाची रक्कम देण्यास तयार होतात. तरीही 'शब्दा' ला जपणारा गुणा व नयना त्याला 'नकार' देताच ते धमकी देऊन निघून जातात.

......आणि 'गुणा' ची शोकांतिका आकारावयास आरंभ होतो.

दहा ते चौदा चार प्रकरणात अधिक गतिमान होते. दारकीवर उदाजी घाडगे बलात्कार करतो. इकडे कोपरवाडीच्या प्रयोगासाठी लिहिलेल्या 'बृहन्नडे'च्या वागाने आपल्यावरील 'कलंक' धुवून जाईल म्हणून 'गुणा' उत्साहित झालेला.

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प्रत्यक्ष 'वग' झाल्यानंतर 'अर्जुना'चे काम. ('गुणा'चे) सर्वांना आवडते, मात्र जनतेला हवा असतो 'नाच्या' ? 'कुणा'च्या तरी नव्हे तर मानेसाहेबांनी पेरलेल्या/ पाठविलेल्या मापसांनी 'अर्जुन हयोच नाच्या हाय', ह्या वास्तवाला समजून सगळे चेकाळतात. लोकांचा 'कल्लोळ' सुरू होतो, बत्त्या फोडल्या जातात, दगड़े, मशाली फेकले जातात. 'फॅड' पेटतो अंधारात 'गुणा' वर घॉगडे टाकृन कोणीतरी त्याला उचलते, 'नयना शोभना' दिसत नाहीत. तिघांच्यावरही 'बलात्कार' केला जातो. वृत्तपत्रात बातमी, पोलिस चौकशी, होते. मात्र तरीही 'गुणा' राख झालेल्या 'फडा'त 'नटराजा' ची मूर्ती शोधतो, ती सापडताच 'हंबरडा' फोडल्यागत राखेत लोळतो. 'घुंगरु' मात्र सापडत नाही. बाकीचे त्याला सावस्तात. गाडी, फड, नयना, शोभना, सगळे उद्भवस्त होते. असा कलावंतापायी सर्वस्व गमावलेला 'गुणा' गावी परततो, तेव्हा त्याला दिसते घराला कुलूप! 'लोक' पेपरातील बातम्या चघळत असतात. नको ती उत्तरे त्याला द्यावी लागतात. 'दारकी' सासरी निघून गेलेली. त्याला जाणवते की आपण 'एकटे एकटे आहोत'. तरीही नेहमीसारखा मुकार होतो बायका-पोरीच्या ओढीने सासर गाठतो. तेथेही 'मानखंडणा' होते. बायको, सासरा, मुले त्याला नाका. रतात, 'नटराजा'ची मूर्ती काळजाशी कवटाळून बोलणाऱ्या 'गुणा' ला राजा म्हणतो, गावाजी गांड मारलेल्या बाई जवळ मी राहणार नाही. नंतर तो थुंकतो 'हेमल्या, बुळ्या, फलक्या' अशा शिव्या देऊ लांगतो. हे सर्व बघून अनुभवूनही 'कोसळत' नाही 'मांगवाडा' ओलांडून चालू लागतो. 'गावी' पोहचल्यानंतर 'रात्री' गुपचूप मांगवाडचात शिरतो. रात्री चुलीवर 'भात' शिजवून ही शिजत राहतो. दुसऱ्या दिवशी 'होसा' गुणाच्या घराला बाहेरून कडी नाही आता उघडेल, म्हणून वाट पहाते व शेवटी दुपारी पांडबा कडे जाते. 'पांडबा' व शंकर, वसंता व नानाला घेऊन येतो. ते आवाज देतात प्रतिसाद मिळत नाही. शेवटी दार तोडण्याचा ते प्रयत्न करीत असताना 'गुणा' ला जाग येते. व तो दार उघडतो.

आत प्रवेश केल्यानंतर दिसते ती.. प्रथम नव्या कापडावर घडी करून, स्वच्छ करून ठेवलेली नटराजा' ची मूर्ती, जाळातून निघल्यामुळे ती अधिक सतेज झालेली. सगळे विविध प्रश्न विचारतात. तो आपल्याच तंद्रीत उत्तर देतो. त्याची ती 'दशा' बधून पांडबाला रडू येते. त्याचे कारण त्यानेच त्याला 'नाच्या'

। १५६ । आंतरविद्याशाखीय विचार प्रवाह ।

व्हायला सांगितले. मात्र 'गुणा उत्तरतो.... ना बाईला, ना बायकुला, ना कुणाला माझे खूळ कळलं.... माझी आदिमाया. जगाची मूळ मावली ती. बायांची मूळ बाई. माझ्यातनं नटली.... असे बरेच काही तो बडबडायला लागतो. शंकर-पाडबा त्याला या बडबडीतून बाहेर काढण्याचा प्रयत्न करतात. डोळे आरंभी ताठर व नंतर स्थिर होतात. हाडाच्या सापळयागत झालेल्या 'गुणा' ला थांबविण्याचा प्रयत्न करणाऱ्या नानाला 'गुणा' उत्तर देतो, मी नाच्या हाय नाना. माझी कला माझा जीव नि मी तिचा शिव... तिच खरी. बाकीची समदी माया. घुंगरू होऊन तो बोलला.....

एखादे प्रेत उठून पुन्हा चैतन्यानं रसरसावं तसा नसलेल्या घुगरांच्या ठेक्यात तो पावलं उचलू' असा शेवट असणारी ही साहित्यकृती तृतीयपुरुषी निवेदन, प्रसंगी आत्मनिवदेन यांचे बेमालूममिश्रण करून ध्येयासक्त कलावंताची शोकांतिका रेखाटण्यात लेखक कमालीचा यशस्वी होतो. त्यातील निवेदन, कोल्हापुरी भाषेचा रेडा, नंदी, महादेव घोंगडी, या सर्वच बाबींचा केलेला प्रतिकात्मक वापर इ. अनेक कारणांनी आपल्या लक्षात राहते व 'गुणा'च्या कलासक्त मनाचे हे आक्रंदन अधिक खोलवर घुमत राहते, अस्वस्थ करते.

भाषा, निवेदन, घटना, वास्तव या साधनांचा मूळ आशयासाठी केलेल्या चपखल वापरामुळे 'नटरंग' ही कादंबरी मराठीतील कलावंताच्या मनाच्या आक्रंताची 'व्यथा' यथार्थपणे साकार करण्यात कमालीची यशस्वी होते..

'नटरंग' या कादंबरीचे मूळ कथानक व स्वरूप वरील प्रमाणे आहे. येथे या कादंबरीच्या वाङ्मयीन मूल्याचा, गुण-वैशिष्टयांचा ढोबळ विचार केलेला आहे. या सर्व विवेचनातून व स्वतः लेखकाने प्रकट केलेल्या त्या निर्मिती-प्रयोजनातून 'कलावंताला कलेसाठी करावी लागणारी धडपड, त्याची घुसमट, आक्रंदन, मोजावी लागणारी किंमत व शेवटी प्रत्येक कलावंताच्या बहुतांशी कलावंताच्या वाट्याला येणारी अस्वस्थता, शोकांतिका शब्दबद्ध करणे' हा लेखकाचा मूळ हेतू होता व त्यात डॉ. आनंद यादव यशस्वी झाले, हे लक्षात येईल, नाच्या, तमाशा हे त्याचे निमित्तमात्र. या कादंबरीच्या आशयाविषयी ते लिहितात, कलेची आराधना करता करता कलावंत स्वतःचे समाजातील आयुष्यही उद्धवस्त करून बसतो, हा कादंबरीचा आशय, लौकिक बंधने, स्वतःच्या मर्यादा,

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पैशाचा मोह, संसार, मुलेबाळे, वैभव या सर्वांचा मोह सोडून त्याला कलेची अराधना करावी लागते. ' हे शाश्वत सत्य प्रकट करू इच्छिणाऱ्या या कादंबरीकहैं आराधना करावी लागते. ' हे शाश्वत सत्य प्रकट करू इच्छिणाऱ्या या कादंबरीकहैं मराठी वाङ्मयाच्या जाणकारांनी कसे बिघतले? हा ही प्रश्न महत्त्वाचा आहे. मराठी वाङ्मयाच्या इतिहासातील ही नोंद पहा, गुणा कागलकर तमाशाचा फड उभा करतो आणि व्यावसायिक निकड म्हणून स्वतः 'नाच्या' बनतो किंवा 'नटरंग' मध्ये मांगवाड्यातील लोक कलाकलावंताची शोकात्मिका केंद्र स्थानी आहे. १ यापुढे जाऊन ग्रामीण वाङ्मयाच्या इतिहासात तर या कादंबरीवर, ग्रामीण कलावंताची घुसमट व्यक्त करणारी कादंबरी." एवढीच ओळ आहे. कोणी तिला 'नाच्याच्या उद्ध्वस्त जीवनाचे आर्त. ' मानतो. मात्र त्याच्यातील 'कलावंत'. 'कला' बाहेर काढण्यासाठीची धडपड' या भूमिकेने तिच्याकडे बिघतलेच असे वाटते. अर्थात रा. रं. बोराडे, रविंद्र ठाकूर, एस. एम. कानडने इ. काही जाणकार त्याला अपवाद आहे. रा. रं. बोराडे यांनी या संदर्भात एक महत्त्वाचा मृद्दा उपस्थित केला आहे. ते लिहितात, मराठी साहित्यातील मैलाचा दगड ठरावी अशी ही कादंबरी... तरीही 'गोतावळा' ची रसिकप्रियता या कादंबरीला का लाभू नये, हे न उलगडणारे कोडे आहे त्यामागील माझे आकलन असे सांगते की, ते कारण, वाङ्मयबाह्य आहे. त्याची चर्चा विस्तारभयास्तव येथे थांबवितो.

मराठी वाङ्मयाचे, ग्रामीण वाङ्मयाचे इतिहासकार मराठी साहित्याचे जाणकार या कादंबरीकडे कोणत्यां दृष्टीने बघतात, त्याची ही प्रातिनिधिक उदाहरणे. ती पुरेशी यथार्थ नाहीत. या पार्श्वभूमीवर या कलाकाराला 'चित्रकृती च्या माध्यमातून सादर करणारे 'नटरंग' या चित्रपटाचे दिग्दर्शक, निर्माता, नट, कसे बघतात व त्यांनी सादर केलेली 'चित्रकृती' लेखकाचा मूळ आशय प्रकट करण्यात यशस्वी होते का? झाली का? हा 'प्रश्न' येथे महत्त्वाचा आहे.

।।२।। चित्रपट ।।

मराठी ग्रामीण चित्रपटांची १९१३ पासून सुरु झालेली परंपरा अलिकडच्या कालखंडात अधिक समृद्ध व प्रयोगसंपन्न झालेली दिसते. 'दे धका', वळू'

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टींग्या', 'जोगवा', 'निशाणी डावा अंगठा', 'गोष्ट एका डोंगराची' अशी कितीतरी नावे त्यासंदर्भात सहज आठवणारी. या परंपरेत 'नटरंग' या चित्रपटाने आणखी वेगळी 'वाट' शोधण्याचा यशस्वी प्रयत्न केलेला दिसतो.

मुळातच ही कादंबरी प्रसिद्ध झाल्यापासून त्यातील नाटय, व्यावसायिक विचार, यादृष्टीने तिच्याकडे अनेक नाटककार, चित्रपट निर्माते हे आकर्षित झाले. अनेकजण इच्छुक होते, मात्र से 'तमाशापट' म्हणूनच या कादंबरीकडे बघत होते व लेखकाला ते मान्य नव्हते. 'चित्रपट' माध्यमाच्या गरजा आर्थिक-व्यावसायिक प्रश्न व मर्यादा इ. लक्षात घेऊनही 'नटरंग'च्या निर्मितीपर्यंत डॉ. आनंद यादवांनी बऱ्याच लोकांना नकार दिलेला. या कादंबरीवर 'नाटक' ही झाले. त्याचे काही प्रयोग(४/५) मुंबईत झालेही. मात्र डॉ. आनंद यादवांनी स्वतः ज्यावेळी तो प्रयोग बिघतला, त्यावेळी त्यांनी ते 'नाटक' त्या लोकांना बंद करण्याचे स्पष्टपणे सांगितले. आता 'चित्रपट' आल्यानंतरही 'गुणा कागलकर' या नावाने 'पनवेल' चे काही लोक त्यावर 'नाट्यप्रयोग' सुरू करीत आहे. एकूण या नावाने 'पनवेल' चे काही लोक त्यावर 'नाट्यप्रयोग' महणून या कादंबरीने या कादंबरीच्या प्रकाशनानंतर अनेकांना 'चित्र' व 'नाट्यकृती' महणून या कादंबरीने आकर्षिले आहे.

'नटरंग' या 'शब्दकृती' च्या निर्मितीची ही प्रक्रिया अर्थातच या 'चित्रकृती' च्या निर्मात्या दिगदर्शकांना, पटकथा-कारांना ज्ञात झाली असणार! असा काही बाबी वगळल्यास 'चित्रपट' म्हणून 'नटरंग' ही कलाकृती वैशिष्टपूर्ण झाली आहे. ती लोककला व लोककलावंताच्या शोकात्म चरित्र-कथेला यर्थाथपणे प्रेक्षकां पुढे सादर करते, त्यात शंका नाही.

जागतिक पटलावरील (इंटरनेट) 'नटरंग' या संकेतस्थळाला भेट दिल्यानंतर तीन प्रेक्षकांनी 'आता वाजले की बारा', 'अप्सरा आली' तर एक लाखापेक्षा जास्त लोकांनी 'खेळ मांडला....' या गाण्याला भेट दिल्याची आकडेवारी उसली. मराठी वाचकांची अभिरूची बऱ्यापैकी प्रौढ झाली असली तरी मराठी दिसली. मराठी वाचकांची अभिरूची बऱ्यापैकी प्रौढ झाली असली तरी मराठी प्रेक्षकांची अभिरूची तेवढ्या उंचीवर पोहचली नाही, हे त्यावरून जाणवले. प्रेक्षकांची अभिरूची तेवढ्या उंचीवर पोहचली नाही, हे त्यावरून जाणवले. धाडस करून अशा प्रकारचे चित्रपट निर्माण करणार व त्यासाठी केवळ आर्थिक धाडस करून अशा प्रकारचे चित्रपट निर्माण करणार व त्यासाठी केवळ आर्थिक लाभ, संधीचा विचार न करता अभिनय करणारे अतुल कुलकर्णी, सोनाली,

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किशोर कदम, संगीतकार अजय अतुल, गीतकार गुरु ठाकूर यांच्यासारखे कलावंत ती अधिक समजस, समृद्ध करू शकतात एवढे आश्वासक कार्य या चित्रपटाने निश्चितच केले आहे, त्याबद्दल रवींद्र जाधव यांचे मनःपूर्वक अभिनंदन!

कादंबरीतून चित्रपटात झालेले बदल:

'नटरंग' कादंबरीत लेखक आनंद यादव यांनी गुणा या नायकाच्या माध्यमातून एका नटाची नाच्याची शोकांतिका अतिशय उत्तम रचनाबंध साकारत सांगितली आहे. त्यासाठी नायकाच्या व्यक्तिमत्त्वाला अनेक पैलूही दिले आहेत. उदानाच्या म्हणून गुणाला समाजाबरोबर लढावं लागत आहेच. पण त्यांचा झगडा स्वतःशी देखील आहे. पण आपल्या मनातील द्वंद्वावर विजय मिळवत तो नाच्याच्या भूमिकेकडे कला म्हणून बघायला लागतो. हा त्याचा प्रवास कादंबरीत छोट्या छोट्या पण ठाशीव प्रसंगातून चित्रांकित करण्यात आला आहे. पण गुणाचा तो प्रवास नटरंग सिनेमात पाहायला मिळत नाही. कारण सिनेमा करताना निर्माता दिग्दर्शकांनी फक्त आपल्याला हवे असलेले प्रसंग कादंबरीतून उचलले आहेत आणि त्यांची आपल्याला हवी तशी सरमिसळ केली आहे. पण त्यामुळे अनेक ठिकाणी आधीच दृश्य संपल्यावर पुढच्या दृश्यासाठी आवश्यक असणारी संगतीच आढळत नाही.

रूढार्थाने सिनेमाची कथा नटरंग सिनेमावर बेतलेली आहे. पण आपल्या अधिकारात निर्माता लेखक दिग्दर्शकाने त्यात मोठे बदलही केले आहेत. (अर्थात, त्याला लेखक आनंद यादव यांची संमती आहे.) आणि ते अतिशय तकलाद् किंबहुना मूळ साहित्यकृतीचा परिणाम उणावणारे आहेत. उदाहरणार्थ कादंबरीचा शेवट मूळ कादंबरीत शारीरीक अत्याचार झाल्यावर आणि सगळ्या वर्तमानपत्रात त्याची खमंग बातमी आल्यावर गुणाची बायको आणि मुलंही त्याला नाकारतात, असं दाखवण्यात आलं आहे. त्यामुळे पूर्णपणे उद्धुस्त झालेला गुणा आपल्या साथीदारांचा विरोध असतानाही अखेर पुन्हा तमाशा हीच आपली कर्मभूमी मानतो आणि एकटाच रंगभूमीवरील पुरुष आणि प्रकृतीच्या शोधात निघतो, असं दाखवण्यात आलं आहे. हा शेवट म्हणजे कादंबरीतील कलामूल्याचा परमोच्चिंद् आहेच. पण त्यातून सच्चया कलावंताची आपल्या कलेवर असलेली निष्ठाही

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अधोरेखित होते. महत्त्वाचे म्हणजे या शोकांत शेवटामुळेच कादंबरीचा क्लायमॅक्स हीट ठरतो. मात्र चित्रपटात रंगभूमीची सेवा करायला निघालेल्या गुणाला, आधी त्याच्याशी लग्न करायला नकार दिलेली तमाशातली नयनाही येऊन मिळते, असं दाखवलं आहे. त्यामुळे शेवट एकदमच फिल्मी होतो.

तीच गोष्ट सुरूवातीची. हा सिनेमा फ्लॅशबॅकमध्ये घडतो. सिनेमाच्या सुरूवातीला झी गौरव च्या व्यासपीठावर रंगभूमीची सेवा केल्याबद्दल गुणाजीराव कागलकर या तमाशातील नाच्याला प्रसिध्द लोककलावंत विट्ठल उमाप यांच्या हस्ते जीवनगौरव पुरस्कार मिळतो, असं दाखवण्यात आलं आहे. मूळ कथेला अशी जोड देण्याची वास्तविक काही आवश्यकताच नव्हती. या सीनमुळे गुणा कागलकरचं मोठेपण प्रेक्षकांवर ठसत असेल कदाचित. पण त्यामुळे मूळ आशयाचं खूपच सामान्यीकरण झाल्यासारखं वाटतं. गुणाच्या एकाकी निघून जाण्यातून त्याची कलेवरची जी निष्ठा व्यक्त होते आणि तो शोकान्त जसा वाचकाला भिडतो, तसा चित्रपटात घुसवलेला हा सुखान्त प्रेक्षकांच्या ह्दयाला हात घालत नाही. त्याच्या कलेचं चीज झालं. असं काही काळ वाटतं प्रेक्षकांना. पण ते त्याच्या दुःखाची चीरवेदना घेऊन घरी जात नाहीत.

वास्तविक साहित्यकृतीतील नायकाशी असा मनाचा मेळ जुळणं कठीण असतं. कारण पुस्तकातली व्यक्तिरेखा शब्दांतून डोळ्यासमोर उभी राहत असली, तरी ती प्रत्यक्ष हाडामांसाची नसल्याने तिच्याशी म्हणावा तसा सूर जुळतोच असं नाही. याउलट परिस्थिती चित्रपटात असते. चित्रपटात व्यक्तिरेखा थेट दिसत असल्यामुळे प्रेक्षक त्यांच्याशी अगदी सहज जोडला जातो. आणि तरीही, नटरंग कादंबरी वाचताना वाचक जसा गुणाच्या दुःखाशी समरस होतो. तसा तो नटरंग सिनेमातल्या गुणाशी होत नाही. तिथे त्याला फक्त अतुल कुलकर्णी हा नटच दिसतो. तो त्यालाच दाद देतो, तो गुणाला दाद देत नाही. कारण कुठल्याही कलाकृतीतलं पात्र आणि त्या कलाकृतीचा आस्वाद घेणारा रसिक यांच्यात जो एक संवाद निर्माण व्हायला हवा, तोच या चित्रपटात होत नाही. मूळ कादंबरीत लेखकाच्या हातात पुरेसा अवकाश असल्यामुळे त्याने प्रत्येक प्रसंगात गुणाच्या बाह्य आणि आतंरिक दोन्ही मनस्थितीचं दर्शन घडवलेलं आहे. परिणामी गुणा या व्यक्तिरेखेचा जो प्रवास होतो, त्याला वाचकही साक्षी असतो. पण तसा

। आंतरविद्याशाखीय विचार प्रवाह । १६१ ।

रिसकांचा प्रवास नटरंग मधल्या गुणाबरोबर होत नाही. कारण या सिनेमात सारं असं काही धडक्यात घडत जातं की त्यामुळे पात्रांशी रिसकांना संवादब साधता येत नाही.

'नटरंग' या कादंबरीत एका कलावंताच्या जीवनाची शोकांतिका आहे. प्रतिकूल परिस्थितीतही तो आपल्या भारतीय मूल्यसंस्कारामुळे कलासाधनेबी जिवापाड धडपड सोडत नाही. त्याच्या या निष्ठेचं मूळ भारतीय पुराण कथा व तत्त्वज्ञानाच्या संस्कारात आहे. नटरंग मधील कलावंताचा संघर्ष अनेक पद्री आहे. तसेच त्याच्या जीवनातील ताण तणावाचे स्वरूपही फार गुतांगुंतीचे आहे.

त्याचा संघर्ष एकीकडे दारिद्रच व आंतरमनातील कलेची अनिवार ओढ यांमधील आहे. दुसरीकडे हा संघर्ष कौटुंबिक जीवन व व्यक्तिगत कलासक्त मन यांचा आहे. तिसरं रूप म्हणजे मातंग समाजातील रूढी, परंपरा व त्यांच्या अशा-आकांक्षा यांचा संघर्ष. चौथा संघर्ष पोटाच्या कलेचा व्यापार करणारे व कलेसाठी जगणारे कलावंत यांचा संघर्ष कादंबरीत व्यक्त झाला आहे.

संघर्ष ताण तणाव व मनातील भावबंधाचे रूप कादंबरीत दिसून येते. कलावंताच व्यक्तिमत्त्व सभोवतालच्या परिस्थितीतही काही अंशी घडत असतं तरी त्याचा कलावंताचा पिंड हा जन्मजात असतो.

चित्रपटातील त्रुटी:

नटरंग चित्रपटातील गाणी झी मराठीने सतत ४ ते ६ महिने सतत वाजवली नसती, हँमर केली नसती तर ती फारशी कोणाच्या खिजगणतीतही नसती. त्याच्यांपेक्षा कितीतरी पटीने चांगली अनेक गाणी मराठी चित्रपटात व अल्बमसमध्ये येऊनही प्रसिद्धी अभावी आपल्यापर्यंत पोहोचतच नाहीत. 'झी' चे आर्थिक पाठबळ यांमुळे नटरंगला खूप फायदा झालेला आहे. उदाहरण द्यायचं असल्यास 'वाजले की बारा' व 'अप्सरा आली' या लावण्या 'दे धक्का' मधील 'उगवली शुक्राची चांदणी पेक्षा शब्द, अर्थ संगीत बाबत निश्चितच चांगल्या आहेत.

'नटरंग' चित्रपटात काही प्रसंग न पटण्यासारखे, काल्पनिक वाटले. नयना या पात्राला गुणा हा देखणा, पैलवान गडी दिसताक्षणीच आवडू लागलेला असतो हे शब्दातून नसलं तरी तिच्या डोळयांतून, हावभावातून, देहबोलीतून

। १६२ । आंतरविद्याशाखीय विचार प्रवाह ।

दिग्दर्शकाने सूचित केलेलं आहे. ती एक नैतिकतेची विशेष चाड नसलेली तमासगिरीण आहे हेही उघड आहे. ज्या मर्दानी, आकर्षक पुरूषाची तिला शारीरीक ओढ आहे त्याला ती कमावलेलं शरीर उतरवून नाच्या व्हायला सांगेल हे पटत नाही. तमाशात नाच्या हवा ही तिची अट आहे. गुणा किंवा इतरांना त्याची गरज वाटत नसते. दुसरा कोणाही नाच्या होण्यास तयार नसल्यामुळे नाईलाजाने गुणा स्वतः नाच्या होण्याचा निर्णय घेतो. यावेळी त्याच्यावर अनुरक्त असलेली नयना त्याला थांबवू शकते. आपला हट्ट सोडू शकते. अशा परिस्थितीत कोणतीही हाडामांसाची स्त्री तसेच करेल, पण नयना तसे करत नाही ही केवळ कादंबरीकाराची किंवा दिग्दर्शकाची गरज असावी या पात्राची अपरिहार्यता नाही.

'नटरंग' मधील शिंदे या राजकारण्याकडून जत्रेतील कार्यक्रमाची सुपारी मिळवण्याचा प्रसंगही तसाच अजब आहे. सत्तास्थानी असलेल्या पुरुषांकडून आपलं काम करून घेण्यासाठी, त्याची विकेट घेण्यासाठी तमाशाचा व्यवस्थापक तमाशातील तारूण्य संपन्न, नखरेल रूपगर्वितेला पुढे करेल की नाच्याला? शिंदे हा समिलंगी प्रवृत्तीचा असल्याची कोणतीही चिन्हं चित्रपटात नव्हती. मग त्याला पटवण्यासाठी, लाडे लाडे बोलण्यासाठी नयनाला पुढे करण्याऐवजी नाच्याला वापरण्याचे काय प्रयोजन? असा प्रश्न निर्माण होतो.

नटरंगमधील गुणा दुसऱ्यांदा फड उभारायला निघाल्यानंतरच्या त्याच्या आयुष्याच्या प्रवासाची कहाणी तर दोन चार मिनिटात पटकन श्राध्द उरकावं तशी उरकली आहे. हा माणूस म्हातारपणी जीवन गौरव पुरस्कार मिळवण्याइतपत मोठा कसा झाला हे प्रेक्षकांना कळतच नाही. मुळात, त्याआधी गुणाला लिहिताना, तालमी घेताना जेव्हा जेव्हा दाखवले आहे तेव्हा त्याच्या वग लेखनात अजिबात चमक दिसत नाही. गुणा पुढे जाऊन तमाशाच्या क्षेत्रातील दादू इंदुलीकर प्रभूती दिग्गजांच्या पंक्तीत स्थान मिळवेल, अशी पुसटशी शंकाही येत नाही. मुरूवातीला सगळेच कच्चे, नविशके असतात हे मान्य पण अंगभूत प्रतिमा जरा तरी दिसायला नको? पैलू पाडण्याआधी हिरा हिराच असतो. त्याच्यात व सामान्य दगडात काही फरक असतोच. पैलू पाडल्यानंतर तो अधिक चमकतो. सुदंर दिसतो इतकचं. गुणाच्या बाबतीत असे काही अजिबात वाटत नाही. इथे लेखक पटकथाकार कमी पडले आहेत असे वाटते.

। आंतरविद्याशाखीय विचार प्रवाह । १६३ ।

आपल्या अभिनयाच्या जोरावर नट नटयांनी दिग्दर्शकास व चित्रपटास आपल्या अभिनयच्या जोरावर नट नटयांनी दिग्दर्शकास व चित्रपटास तारून नेले आहे. अतुल कुलकर्णी यांची अभिनयक्षमता वादातीत आहे. व तारून नेले आहे. अतुल कुलकर्णी यांची या चित्रपटात लौकिकास साजेसा त्यांनी याआधी सिध्द केलेली आहे. त्यांनी या चित्रपटात लौकिकास साजेसा त्यांनी याआधी सिध्द केलेली आहे. गुणाची दोन्ही रूप जिवंत केलेली आहेत. मात्र खूप अभिनय केलेला आहे. गुणाची दोन्ही रूप जिवंत केलेली आहेत. मात्र खूप अभिनय करूनही अनेक ठिकाणी उच्चारात त्यांच्यातील कुलकर्णी लपू शकलेला प्रयत्न करूनही अनेक ठिकाणी उच्चारात त्यांच्यातील कुलकर्णी लपू शकलेला

चित्रपटाच्या जमेच्या बाजू

- १. खूप वर्षांनी तमाशाप्रधान चित्रपट काढला.
- २. या व्यवसायाशी संबधित नाच्यांची समस्या मांडणारा चित्रपट
- ३. हॅमर करून गाजलेली गाणी का असेनात पण अजय अतुल यांचे नकीच चांगले संगीत आहे.
 - ४. ध्वनी योजना चांगली
 - ५. बऱ्याच नव्या कलाकारांना संधी

काही खटकलेल्या गोष्टी:

१) 'नटरंग' या चित्रपटातील शाहीर गुणा कागलकरला झी चा जीवनगौरव पुरस्कार मिळतो. तेव्हा ज्या मंदगतीने तो पायऱ्या चढतो. तेव्हा त्याचे वय ६५ ते ७० तरी असेल. झी गौरव पुरस्काराच्या चित्रफिती यात जोडलेल्या आहेत. त्यातील कलाकार पाहता तो आजचा म्हणजे २०१० चा काळ आहे. मग गणाच्या तरूणपणीचा जीवनपट फ्लॅशबॅक ने दाखवला आहे. तेव्हा त्याचे वय ३५ धरले तर हे कथानक ७० च्या दशकात घडलेले आहे. गुणा मजूर म्हणून काम करत असला तरी तो कसा इयत्ता शिकलेला आहे कारण त्याला सफाईने लिहिता वाचता येते. हे काहिसे विचित्र वाटते. त्याच्या घरची परिस्थिती हलाखीची दाखवली आहे. अशा स्थितीच गुणा पैलवानासारखी शरीरयष्टी कसा कमावतो ? नुसता व्यायाम करून अशी शरीरयष्टी बनवता येत नाही हे स्वतः अतुल कुलकर्णी यांनी शुटिंग दरम्यान अनुभवले असेल. व्यायामाच्या जोडीला भरपूर खुराक लागत असेल. भरपूर दुध, फळे, मांसाहार हे या गुणाला कधी मिळते ? यांचा उलगडा होत नाही. ती त्याची नैसर्गिक शरीरयष्टी असेल असे मानले तर मग तो

। १६४ । आंतरविद्याशाखीय विचार प्रवाह ।

६ महिन्यात बारीक कसा होतो? असे अनेक प्रश्न निर्माण होतात.

- २) गुणाला तमाशाची आवड आहे म्हणजे नाच्याला किती अवहेलना सहन करावी लागत असेल याची त्याला कल्पना असेल. मग तरीही हा संसारी माणूस ही जोखीम का घेतो? अनेक जण नाच्या म्हणून शोभणार नाही अशी सबब पुढे करत पळ काढतात मग पैलवान गुणा तरी नाच्या म्हणून कसा शोभेल हा विचार कोणाच्या मनात येत नाही?
- ३) तमाशाच्या वेडापायी तो बायको, बाप, मुलगा यांच्याकडे दुर्लक्ष करतो. एकीकडे नयनाला गुरू मानून शालू घेऊन देतो व तिच्याशीच शय्या सोबतही करतो. नयना त्याला बायकोबद्दल विचारते तेव्हा आपल्या बायकोला माझ्यात रस नाही असे न पटणारे कारण देतो. यामुळे गुणा विषयी मुळीच सहानुभूती वाटत नाही. किंबहुना त्याचा राग येतो.
- ४) नयना आधी व्यावहारिक दृष्टीकोनातून त्याच्याशी लग्न करण्यास नकार देतो पण नंतर त्याला साथ देते. तिचा विचार असा कसा बदलतो? गुणाची बायको त्याला झिडकारते म्हणूनं?
- ५) पैलवान गुणाचे नाच्यात कसे व का रूपांतर झाले आहे. हे माहीत असलेले लोक पण त्याच्या मुलाची चेष्टा करतात हे एकवेळ शक्य आहे. त्यांना गुणाचे यश बघवत नसेल.
- ६) पाटलांकडून फडाची सुपारी घेण्याच्या प्रसंगात गुणाचा उपयोग करून घेणे हे देखील न पटणारे.
- ७) सर्व नाचे लोक हे गुणासारखेच परिस्थितीमुळे तसे बनलेले असतात की काही खरोखरच तसे असतात यावर हा चित्रपट भाष्य करत नाही.
- ८) जीवनगौरव पुरस्कार मिळवण्याएवढे यश गुणा कसे मिळवतो हे अधिक ठळकपणे दाखवायला हवे होते. एक शाहीर म्हणून त्याची प्रतिमा फारशी दिसत नाही असे दाखवण्यामागचे कारण काय ? नयना चे काय होते ? की सगळा प्रवास तो एकटयाने करतो असे त्यांना सिबाँलिकली दाखवायचे आहे ?

निष्कर्ष:

षः ग्रामीण तमाशा कलावंताचा जीवनसंघर्ष कलात्मकतेने व्यक्त करण्यासाठी ग्रामाण ते जात्मनिवेदन, संवाद यांचे मिश्रण केले आहे. बाळू मांग, त्याचे गतवैभव, यांत्रिकीकरणामुळे मांगवाडयावर पसरलेली अवकळा, गुणाच्या नाचेपणामुळे त्यांचे उद्भवस्त होत जाणारे भावजीवन, त्याला तमाशाची चढणारी घंदी, गुणाच्या व्यावहारिक जीवनाचे चित्रणही किती सूचक नि कल्पक अमृ शकते, हे पाहण्यासारखे आहे.

सिनेमा म्हणून नटरंग वेगळा आहे. कारण त्याला खूप पदर आहेत. म्हण्जे तो सामाजिक आहे. त्यामध्ये अस्सल मातीतला विषय आहे. त्या विषयातली खोलवर चिघळलेली वेदना आहे. एक संदेश आहे. सिनेमा जागतिक पातळीवरही सहज भिड् शकेल. शिवाय गुणाचं तन्द्रिष्ट असणं, वगासाठी वेडं होणं, शेतात कितीही राबलं, तरी धार टिकल्यासांठी मालकाचे पाय चाटणं, सतत घरातल्यांच्या अपेक्षावर कमी ठरणं हे सिनेमात खूपच प्रभावीपणे दाखवता आलं असतं तिथे सिनेमा खचितच कमी पडला आहे.

महाराष्ट्राची लोककला पेश करणाऱ्या तमाशाला केंद्र पकडून मग त्यातल्या एकेका पदराला अलगद वेगळं करत हा सिनेमा घडत जातो. मेळयाचं प्रमुख आकर्षक ठरणारे फड, लावण्यखणी शब्दाला साजेशा नृत्यांगना, वेडावणारं पब्लिक, पाटील बांधून ठेवणारा मॅनेजर, वादक, गण, गवळण, लावणी, बतावणी, कटाव, वगनाटयाचा अस्सल साज आणि मुख्य म्हणजे त्यातंल नाच्या हे पात्र ज्याप्रमाणे एखादा कलाकार कुंचला घेऊन आपल्या कलाकृतीचं बारकाईने डिटेलिंग करतो तितक्याच बारकाईने या सिनेमातल्या प्रत्येक कंगोऱ्याला आकार दिला गेलाच आणि या डिटेलिंगमुळेच सिनेमात प्रेक्षक अधिकाधिक गुतंत जातो.

नटरंग ही एका आत्ममग्न कलावंताची ध्येयधुंद कलासाधना साकार करणारी कादंबरी आहे. आनंद यादव यांच्या नटरंग या गाजलेल्या कादंबरीवरचा हा सिनेमा या उत्कृष्ट सिनेमाने न्याय दिलाय असे वाटते.

प्रा.डॉ.गणेश सहयोगी प्राध्यापक व मराठी विभाग प्रमुख

के.जे.सोनैया महाविद्यालय कोपरगांव,जि.अ.नगर १६६ । आंतरविद्याशाखीय विचार प्रवाह ।

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व विज्ञान महाविद्यालय, कोपरगांव

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भारतीय प्रजासत्ताक दिनी दि.२६-१९९९ रोजी कीपरगांव नगरपालिके तर्फे उभारण्यांत आला.

जी. व्ही. महाले | बी.आर. मरवा, |एम. के. आढाव, उपाध्यक्ष.

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डॉ. कान्हू गिरमकर डॉ. लहू गायकवाड



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जागतिक वितरक । www.sanaybooks.com ISBN 978-93-83369-37-9 (PB)

मूल्य । ₹ १६०/- (एकशे साठ रुपये फक्त)

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अनुक्रमणिका

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१५ ऑगस्ट १९४७ रोजी भारत स्वतंत्र झाला. या वर्षी आपण स्वातंत्र्याचे अमृतमहोत्सवी वर्ष साजरे करत आहोत. 'आझादी का अमृत महोत्सव' म्हणजेच भारतीय स्वातंत्र्याच्या ७५ व्या वर्षाच्या निमित्ताने स्थानिक इतिहासलेखनाचा एक भाग म्हणून स्वातंत्र्य चळवळीमधील कोपरगाव तालुक्याच्या योगदानाची चर्चा करणे आवश्यक आहे. कोपरगाव पुरातन काळापासून ऐतिहासिक नगरी आहे. पौराणिक काळात महर्षी शुक्राचार्य, कच-देवयानी, संजीवनी पार व बेट परिसर, देवी-देवता, यादवकालीन मंदिर स्थापत्य, गोदावरी नदीचा परिसर, शिवकाळ व पेशवंकालीन कोपरगावचे महत्त्व, आधुनिक काळातील महर्षी जनार्धन स्वामी यांची समाधी, साखर उद्योग, सहकार धुरीण मा. ग. रा. औताडे, मा. के. बी. रोहमारे, मा. दादा शहाजी रोहमारे, मा. सुर्यभानजी वहाडणे, माजी खासदार भीम बडदे, मा. ना. स. फरांदे, सहकार महर्षी मा. शंकराव काळे व मा. शंकरराव कोल्हे यांच्या योगदानामुळे विकसित सहकार चळवळ, शैक्षणिक नगरी म्हणून विकास, श्वेतक्रांतीचे स्थान असलेला मा. नामदेवरावजी परजणे गोदावरी दुध संघ इत्यादी महत्त्वपूर्ण बार्बीचे केंद्र म्हणून कोपरगाव तालुक्याचा नावलौकीक झाला आहे.

स्वातंत्र्य चळवळीतही कोपरगाव तालुका मागे नव्हता. तालुक्यातील १६३ स्वातंत्र्यसैनिकांनी स्वातंत्र्य चळवळीत भाग घेतला. १८५७-१९४७ पर्यंतच्या या सर्व घटनांची मुद्देसूद माहिती, असहकार चळवळ, मिठाचा व जंगल सत्याग्रह, चले जाव आंदोलन, झेंडा सत्याग्रह, भूमिगत क्रांतिकारकांचे कार्य... या सर्व घटकांचा आढावा या पुस्तकात घेण्यात आला आहे.



SANAY PRAKASHAN

Creation | Publication | Promotion | Distribution www.sanaybooks.com / Mo.9860429134



प्रो. डॉ. विलास दौलतराव आवारी गौरव ग्रंथ

भारतीय लोकशाहीची ७५ वर्षे: समीक्षा



डॉ. विलास विट्ठल नाबदे

भारतीय लोकशाहीची ७५ वर्षे : समीक्षा

ः संपादक ःः

डॉ. विलास विठ्ठल नाबदे

सहा. प्राध्यापक, राज्यशास्त्र विभाग अहमदनगर महाविद्यालय, अ.नगर

पुनम पब्लिकेशन

१२३/१, बी-ब्लॉक, गल्ली नं. ८, भैजनपुरा, दिल्ली - ११० ०५३

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अमृतमहोत्सवी वर्षात पदार्पण करताना

डॉ. सुरेश देवरे

के. जे. सोमैया महाविद्यालय, कोपरगाव

प्रास्तविक :

आपला भारत देश १५ ऑगस्ट १९४७ रोजी स्वतंत्र झाला. या अभूतपूर्व घटनेला यंदा ७५ वर्ष पूर्ण होत आहेत, अमृत महोत्सवी वर्षात पदार्पण करणारा हा आपला देश अनेक दृष्टीने _{वैशिष्ट्यपूर्ण} ठरला आहे. यामध्ये मुख्य वैशिष्ट्य म्हणजे आपल्या देशाने लोकशाही समाज व्यवस्था विकारली आहे. लोकांनी लोकांसाठी लोकांचे निर्माण झालेले हे राष्ट्र किती ही संकटे येऊ द्या पण आजही लोकशाहीची मूल्ये जपण्यासाठी झटत असताना दिसत आहे. गेल्या ७५ वर्षाच्या काळात भारताने विविध क्षेत्रांत देदीप्यमान कामगिरी केली आहे, गेल्या ७५ वर्षात केलेल्या सर्वांगीण विकासाचा आलेख पाहून प्रत्येक भारतीयाचे मन अभिमानाने भरून येते आहे. १९४७ पूर्वी या देशात राचणी देखील तयार होत नव्हती. शिवाय बहुसंख्य जनता दोन वेळच्या पोटाची खळगी भरण्यासाठी अहोरात्र कष्ट घेत होती, तरी ही इथल्या निसर्गाच्या कृपेवर अवलंबून असणाऱ्या शेतकऱ्यांना अन्न, वस्न, निवारा, वीज, पाणी यांपासून वंचित रहावे लागत होते. मात्र स्वातंत्र्य मिळाल्यानंतर गेल्या ७५ वर्षांत भारताने कृषी क्षेत्रात संपूर्णपणे स्वावलंबी होण्यासाठी कटीबद्ध होऊन आज अन्नधान्य निर्यात अणाऱ्या देशातील अग्रभागी असणारा देश अशी ओळख निर्माण केली आहे. इथली साखर कारखानदारी, दुध व दुग्धजन्य व्यवसाय, सहकारी सोसायट्या पहाण्यासाठी परदेशी अभ्यासक मोठ्या संख्येने भारतात येतात.

भारत आपल्या स्वातंत्र्याचा सुवर्ण महोत्सव साजरा करण्याच्या उंबरठ्यावर आहे. भारताला खातंत्र्य मिळाले, तेव्हा भारताची एकात्मता किती काळ राहील? लोकशाही कितपत टिकून राहील? अशी भीती अनेक पाश्चात्त्य राजकीय विश्लेषक व्यक्त करीत होते. पं. नेहरू जीवंत असेपर्यंत किंवा काँग्रेसचा प्रभाव टिकून असेपर्यंत असे विविध अंदाज प्रकट केले जात होते. परंतु स्वातंत्र्यानंतरची तिसी पिढी सध्या विविध सत्ता स्थानांवर आहे. गेल्या पंचाहत्तर वर्षांत राष्ट्रीय एकात्मतेला, लोकशाहीला विका पोहोचिविणाऱ्या अनेक घटना, प्रसंग घडले. दक्षिणेतील हिंदी भाषाविरोधी आंदोलन, ईशान्येतील विविध राज्यांतील सशस्त्र उठाव, अशांत काश्मीर खोरे, भाषावार प्रांतरचनेतून निर्माण झालेले प्रश्न, भिद्रनवालेंचे आंदोलन व नंतर झालेले ऑपरेशन ब्लू स्टार असे राष्ट्रीय एकात्मतेला धोका निर्माण करणारे कितीतरी प्रसंग, आंदोलने घडली. आणीबाणीमुळे लोकशाहीला धोका निर्माण झाला होता.

इंदिरा गांधी यांनी तर बँकांचे राष्ट्रीयीकरण केले आणि समाजवादी अर्थव्यवस्थेच्या दृष्टीने भणखी एक पाऊल पुढे टाकले. आपल्या देशाने पंतप्रधान पी. व्ही. नरसिंहराव यांच्या काळात

दाखवून दिला. वास्तावक त्यापळा जा सत्तावक त्यापळा जा त्याच विरोधकांनी जागतिकीकरणाचा पुरस्कार केल्याचे आफा नंतरच्या काळात सत्तेवर आलेल्या त्याच विरोधकांनी जागतिकीकरण ही नवी तत्वे स्वीकारहण आणि नंतरच्या काळात सत्तवर आरारण आणि जागतिकीकरण ही नवी तत्वे स्वीकारल्यामुळे पंडित सर्वांनी पाहिले. खाजगीकरण, उदारीकरण आणि जागतिकीकरण ही नवी तत्वे स्वीकारल्यामुळे पंडित सर्वांनी पाहिले. खाजगाकरण, उपार स्वांनिया धोरण चुकीचे होते की काय अशी शंका है। नेहरू यांच्या पूर्वीच्या समाजवादी विचारसरणीचे धोरण चुकीचे होते की काय अशी शंका है। नेहरू यांच्या पूर्वाच्या समाजवार अनेकांनी त्यावेळी व्यक्त केली, मात्र स्वातंत्र्यानंतर पहिल्या काळात सार्वजनिक क्षेत्रातील वाह अनेकानी त्यावळा व्यक्त प्रतान कारखाने आपण सुरू केले. त्यामुळे खाजगी उद्योगधंद्यांना आवश्यकच होती. पोलादासारखे अनेक कारखाने आपण सुरू केले. त्यामुळे खाजगी उद्योगधंद्यांना आवश्यकच होता. पाराप्तरार ज्यापद्याना युध्दात याच पोलादाची शस्त्रे तयार करून ती आफा चालना मिळाला. १९६५ चे युध्द आपण अवघ्या दहा दिवसांत जिंकू शकलो याचे काला अधिच्या काळात आपण केलेल्या पोलादासारख्या पायाभूत उद्योगधंद्यांची वाढ हे होय. नंतरच्या आधाच्या काळात आसा अस्ति । जारचा काळात या राष्ट्रीयीकरणामुळे सार्वजनिक क्षेत्रातील उद्योगधंद्यांमुळे कोट्यावधी रुपयांचा तोटा होऊ लागला.अशा उद्योगधंद्यांचा आपल्याला वाईट अनुभव आला, त्यामुळे खाजगी क्षेत्रातील उद्योगांनी आपले लक्ष वेधून घेतले. आणि ते देशाच्या विकासासाठी परवडणारे आहे, असे वाटू लागले. अर्थात असाच अनुभव जगातल्या कम्युनिस्ट राष्ट्रांनाही आला, चीनसारख्या कम्युनिस्ट देशानेही खाजगीकरण अवलंबिले.खाजगीकरण ही आज काळाची गरज आहे, तर राष्ट्रीयीकरण व सार्वजनिक क्षेत्रातील विस्तार ही सुरुवातीला आपली निकड होती, दोन्ही अर्थव्यवस्था पुरक ठरल्या आणि विकासाच्या गतीने वेध घेतला, हे वास्तव नाकारता येणार नाही. आज आंतरराष्ट्रीय बाजारपेटेत आपल्या देशाचा उत्पादीत मालाची विक्री मोठ्या प्रमाणात होऊ लागली आहे, शिवाय पादेशी तंत्रज्ञान आणि सुधारीत पद्धतीने निर्माण होणाऱ्या वस्तू व सेवा यांचा उपयोग करणे आपल्याला ही सुलभ झाले आहे, हे लक्षात घ्यायला हवे. स्वातंत्र्य मिळाल्यानंतर बांधलेल्या भाक्रानांगल सारखा मोठमोठ्या धरणांमुळेच आज देश प्रगतीच्या वारूवर स्वार झाला आहे,हे सुध्दा आपल्याला नाकाता येणार नाही. कारण शेतीला व मोठ्या उद्योगांना लागणारी वीजनिर्मिती अशा धरणांमुळेच शब्य झाली आहे. नद्या, कालवे, तलाव, शेततळे या सारख्या जलस्रोतांच्या उपलब्धतेमुळे येथील बहुसंख्येने असणारा शेतकरी समृद्धीच्या वाटेवर चालत आहे. भारताला स्वातंत्र्य मिळाल्यानंतर भारतासमोरील आव्हाने मोठी होती. सर्वात मोठे आव्हान देश एकसंध ठेवण्याचे होते. भारताच्या इतिहासात, सम्राट अशोकाच्या साम्राज्यानंतर एवढा मोठा भूभाग एका राजकीय व प्रशासकीय सत्तेखाली आला होता. घटनानिर्मिती करताना भारताच्या

१९९२ नंतर मुक्त अथव्यवस्था स्थायाराः १९९२ नंतर मुक्त अथव्यवस्था स्थायाराः केला होता, मान्न दाखबून दिला. वास्तविक त्यावेळी जागतिकीकरणाच्या प्रयोगाला अनेकांनी विरोध केला होता, मान्न दाखबून दिला. वास्तविक त्यावेल्या त्याच विरोधकांनी जागतिकीकरणाचा पुरस्कार केलाहे

भविष्याच्या दृष्टीने दोन प्रमुख विचारप्रवाह होते. पहिला विचार केंद्र सामर्थ्यशाली ठेवण्याचा होती, तर दुसरा राज्यांना अधिक अधिकार देण्याचा होता. यामध्ये राज्यघटनेत संतुलन साधण्याचा प्रयूल केला असला, तरी अंतिम अधिकार केंद्र शासनाकडे दिला व राष्ट्रीय एकात्मतेचा पाया निश्चित केला. कोणत्याही राज्याला या संघराज्यातून फुटून निघण्याचा अधिकार दिला नाही. भारतामध्ये जी विविधता आहे, तिचा आदर व तिचे संरक्षण करीत असताना ती फुटीचे साधन बनणार नाही यादी काळजी घेण्यात आसी अस्ति अस् काळजी घेण्यात आली. अधिकाराचे केंद्रीकरण व विकेंद्रीकरण यांत उत्तम संतुलन साधले गेले आहे. दुसरा प्रश्न मताधिकार क्यालाचा केंद्रीकरण व विकेंद्रीकरण यांत उत्तम संतुलन साधले गेले आहे. दुसरा प्रश्न मताधिकार कोणाला द्यायचा असा होता. लोकशाही विकसित झालेल्या अनेक देशात है। अधिकार टप्प्याटप्पाचे कि अधिकार टप्प्याटप्प्याने दिला गेला होता. भारतीय राज्यघटनेने मात्र एकवीस वर्षांवरील (अ^{ति} _{प्रारतीय} लोकशाहीची ७५ वर्षे : समीक्षा

वर्षांवरील) सर्वांना मताधिकार दिला. जेव्हा भारत स्वतंत्र झाला, तेव्हा देशात मुशिक्षित वर्णांव प्रमाण खूपच कमी होते. या दृष्टीने हा निर्णय खूपच धाडसाचा होता. भारतामध्ये विविध प्रकार्वी सामाजिक विषमता होती. ती दूर करण्याचा प्रयत्न केला नसता, तर ती भविष्यातील असंतोषांचे कारण बनली असती. त्यातून मार्ग काढण्याकरिता आरक्षणासारख्या तरतुर्दीमधून तिच्यावर असंतोषांचे कारण बनली असती. धर्म, जात, परंपरा व भाषा हे समाज संघटनेचे व संघर्षांचेही प्रमुख द्वांच्या संबंधांचे स्वरूप काळानुसार बदलत जाते. त्यामुळे त्यांचा सामना करताना दृढता, संवेदनशीलता, नियंत्रण, मोकळीक अशा परस्परविरोधी धोरणांचे संतुलन राखावे लागते. यशस्वी लोकशाहीसाठी राजकीय नेतृत्व, प्रशासन, न्यायव्यवस्था, प्रसारमाध्यमे यांच्या परस्पर संबंधांतून त्यूहित व व्यक्तिस्वातंत्र्य, समाजहित व विशिष्ट समाजगटांचे हितसंबंध यांत समन्वय घडवून आणणे आवश्यक असते. भारताची राज्यघटना करीत असताना १८५७ नंतर ब्रिटिशांनी भारतावर जे राज्य केले, त्याचाच फक्त काय तो अनुभव घटना समितीपाशी होता. हिंदूंच्या अनेक पिढ्यांपाशी एवढे बीठे राज्य चालविण्याचा अनुभव नव्हता, याचा विचार केला तर हे काम किती ऐतिहासिक महत्त्वाचे होते ते लक्षात येते.

भारत जेव्हा स्वतंत्र झाला, तेव्हा त्याबरोबर अनेक देश स्वतंत्र झाले. यामध्ये भारताएवढा विशाल, अनेक प्रकारची विविधता असलेला व रूढ अर्थाने लोकशाहीची परंपरा नसणारा असा एकही देश नव्हता. तरीही भारतात लोकशाही टिकली, तिची पाळेमुळे रूजली, सर्व सत्तांतरे शांततामय मार्गाने झाली. भारताला स्वातंत्र्य मिळत असताना ज्या शंकाकुशंका मनात होत्या, त्या प्रत्यक्षात आत्या नाहीत. याचे महत्त्वाचे कारण म्हणजे आधुनिक लोकशाहीला पोषक अशी आवश्यक मूल्ये फाळणीनंतर उर्वरित भारतात अस्तित्वात होती. १४ ऑगस्ट १९४७पूर्वी भारताचाच एक भाग असलेल्या पाकिस्तानला धर्म एक असूनही आपले ऐक्य टिकविता आले नाही व बांगला देश पाकिस्तानपासून स्वतंत्र झाल्यावरही पाकिस्तानला आपली लोकशाही टिकविता आली नाही. अगदी पाकिस्तानपासून स्वतंत्र झाल्यावरही पाकिस्तानला आपली लोकशाही टिकविता आली नाही. अगदी पांकिस्तानपासून स्वतंत्र झाल्यावरही पांकिस्तानला आपली लोकशाही टिकविता आली नाही. अगदी पांकिस्तानपासून स्वतंत्र झाल्यावरही पांकिस्तानला आपली लोकशाही रिकविता आली नाही. अगदी पांकिस्तानपासून स्वतंत्र झाल्यावरही पांकिस्तानला आपली लोकशाही रिकविता आती पंचायतीद्वारा पांहिजे याचा आग्रह असे. त्याचबरोबर कालानुसार धर्म, रूढी, परंपरा यांत बदल घडवून आणण्याची पाहिजे याचा आग्रह असे. त्याचबरोबर कालानुसार धर्म, रूढी, परंपरा यांत बदल घडवून आणण्याची पांहिजे याचा आग्रह असे. त्याचबरोबर कालानुसार धर्म, रूढी, परंपरा यांत बदल घडवून आणण्याची पांही परंपरा हिंदू संस्कृतीला लाभली आहे. त्यामुळेच कर्मकांडापेक्षा मानवता या मूल्याचे अधिष्ठान भाणसात अधिक प्रतिष्ठा मिळाली आहे. लोकशाही टिकण्यासाठी मानवता या मूल्याचे अधिष्ठान असावे लागते.

लिण्डजे गार्डनर यांच्या मतेव्यक्तीच्या मतदान व्यवहाराला प्रभावित करणाऱ्या घटकांमध्ये प्रवार, निवडणुकांचे मुद्दे, पक्षनिष्ठा, जनसंचार, मतदाराची सामाजिक विषमता, मतदाराची व्यक्तीमत्वा मंबंधी विशेषता या गोष्टींचा समावेश होतो. पामर यांनी मतदानासंबंधी चार निर्धारक घटक सांगितले आहेत. परिस्थिती जन्य राजकीय, सामाजिक तसेच गट वाद कुटुंब, नातेवाईक, जातीगट आणि आहेत. परिस्थिती जन्य राजकीय, सामाजिक तसेच गट वाद कुटुंब, नातेवाईक, जातीगट आणि आहेत. परिस्थिती जन्य राजकीय, सामाजिक तसेच गट वाद कुटुंब, नातेवाईक, जातीगट आणि आहेत. केवळ सांप्रदायिकता यांचा समावेश होतो. राजकारण हे मनुष्य जीवनातील महत्त्वाचा भाग आहे. केवळ सांप्रदायिकता यांचा समावेश होतो. राजकारण हे मनुष्य जीवनातील महत्त्वाचा भाग आहे. सिता संबंधांचा अभ्यास करणे म्हणजे राजकारण नाही ही तर व्यक्ती, गट व समाज आणि राजकारण हे परस्पर सिण करणे याला देखील राजकारण म्हणता येईल. व्यक्ती, गट व समाज आणि राजकारण हे परस्पर सिण करणे याला देखील राजकारण महणता येईल. व्यक्ती, गट व समाज आणि राजकारण हे परस्पर

असते. फक्त निवडणुक काळातच नाही तर व्यक्तीच्या दैनंदिन जीवनातही राजकारणाने ब्राह्म संपर्क येत असतो. निवडणुकप्रचार, विविध प्रश्नांवरील आंदोलने , नेत्यांची भाषणे यांची विधि वहामी करतात. सोशल मीडिया व प्रसारमाध्यमांमुळे राजकारणातील घडामोडी प्रत्येक घरात सम्बर्ध त्यामुळे देश व राज्य पातळीवरील राजकारणाबाबत सकारात्मक वनकारात्मक चर्चा लोक करतात प्रमाणे गाव , तालुका, जिल्हा पातळीवरील राजकारणा संदर्भात चर्चा तर अधिक अपूर्ण करतात. त्यांच्या चर्चेतून विशिष्ट लोकमत तयार होते हे लोकमत निवडणुकांच्या माध्यमातून राजकी व्यवस्थेस अधिमान्यता देते, राजकीय सत्तांतर घडवून आणते तर कधी राजकीय प्रक्रियेस चाल देते.

राजकारण आणि सत्ता यांच्या दोनप्रकारे संरचना तयार होतात. एक म्हणजे कुरिल्हां राजकीय पक्षाच्या राष्ट्रीय व राज्यपातळीवरील नेतृत्वाकडून काही धोरणे तयार केली जाता आके स्थानिक कार्यकर्ते वरिष्ठ नेतृत्वाच्या धोरणाप्रमाणे व मार्गदर्शना खाली काम करतात. दुसे मुल्हां राजकीय पक्षांच्या व राजकीय नेतृत्वाने उरिवलेल्या धोरणांच्या पलीकडे राजकीय कार्य कर्तांचा स्थानिक गरजा, स्थानिक प्रश्न, महत्त्वाकांक्षा यातून राजकारणाला वेगळेवळण मिळते. स्थाकि सत्ता संतुलन आणि स्थानिक सत्तास्पर्धा यांच्यातून स्थानिक आकृतिबंध तयार होतो. स्थाकि राजकारणाचे आणखी एक वैशिष्ट्य म्हणजे त्याला स्वतःचे स्वतंत्र अस्तित्व असते. म्हणून राजकारणाचे आणखी एक वैशिष्ट्य म्हणजे त्याला स्वतःचे स्वतंत्र अस्तित्व असते. म्हणून राजकारणाचे अभ्यासाठी राष्ट्र व राज्यपातळी वरील सत्ता संबंधाबरोबरच स्थानिक सत्ताकारणाच देखेल अभ्यास करावा लागतो. १९७० च्या अगोदर राष्ट्रीय मुद्दे हे राज्यपातळी वरील राजकारणात प्रभावे होते. पण जसजसे राज्यपातळी व जिल्हा पातळीवरील राजकारणात स्थानिक घटकांनी सहभा नोंदवण्यास सुरुवात केली, तसतसे स्थानिक पातळीवरील घटकांना महत्त्व येत गेले. १९९० नत राजकारणाचे स्थानिकीकरण होतअसल्याचे दिसून येते. स्थानिक राजकारणात सामाजिक, आर्थिं आणि राजकीय असे अनेक घटक महत्त्वाचे व परिणामकारक ठरलेले आहेत. अनेक अभ्यासकांक्ष्ण राज्य पातळीवरील अभ्यास करताना जिल्हा पातळीवरील अभ्यासास महत्त्व दिले आहे. अलिकडच्या पातळीवरील अभ्यास करताना जिल्हा पातळीवरील अभ्यासास महत्त्व दिले आहे.

लोकशाहीत होणाऱ्या निवडणूका, लोकशाहीने विकसित केलेली सामाजिक व राजिकीय संस्कृती ही लोकशाहीची बाह्यांगे आहेत. जर त्या समाजाचा सांस्कृतिक आत्मा या मूल्यांशी सुमाजित नसेल, तर केवळ या बाह्यांगावर लोकशाही टिकू शकणार नाही. १९८० ते ९० या दशकात भारतीय ज्या घडामोडी घडल्या, त्यातून भारतीय राजकारणाला निर्णायक वळण मिळाले. १९८१ साली मीनाक्षीपुरमला दिलतांनी सामूहिक धर्मांतर करून मुस्लिम धर्म स्वीकारल्याची घोषणा केली व देश खडबडून जागा झाला. हिंदू समाजातील एकात्मता टिकवायची असेल, तर त्यात सामाजिक समरतिये असलेले महत्त्व हिंदू समाजाच्या लक्षात आले व हिंदू धर्माची सामाजिक चौकट बदल्यावी समरसता मोहीम सुरू झाली. त्यानंतर काश्मीर खोऱ्यातील हिंदूंवर विस्थापित होण्याची वेळ आली. जर हिंदू अल्पसंख्य झाले तर त्याचे काय परिणाम होतात, याचा हिंदू समाजाने फाळणीनंतर पूर्वी एकदा अनुभव घेतला. इंदूरच्या शहाबानोच्या पोटगी संबंधात सर्वोच्च न्यायालयाने जो निकित दिला, त्याविरोधात जातीयवादी मुस्लीम नेत्यांची जी वक्तव्ये, सभा झाल्या, त्यातून वाढत्या इस्लीमी

२७१ १७१ मार्थित संस्था व लोकशाही मृत्ये किती संकटात आहेत, याची भीषण जाणीव झाली. कार्म भूगा कर्म कर्म के लोग स्ट्रिक होता, त्याचे स्वरूप केवळ एका मंदिराच्या लढ्यापुरते भारते हैं। स्वर्थ क्षास्तेत्वे कार्रात्तरे वास्ता परस्परसंबंध भाजपा नेतृत्वाने गांभीयनि लक्षात न घेतल्याने परिणाम क्षेत्र प्रदेश विसंद्वेप श्रेक शकले नाही. परंतु मोदींना या सांस्कृतिक परिवर्तनाची पुरेपूर क्रियोग राजा का सांस्कृतिक परिवर्तनाची पुरेपूर क्रियोग प्रश्निक का भूतकाची जपणूक करणे हे आपले अंगभूत कर्तव्य मानले आहे. मोदींच्या कारण व क्षा संस्कारचे स्वरे सामध्ये यातच आहे.

मारताचे जी राज्यधट्या स्वीकारली, तिचे स्वरूप युरोपकेंद्री आहे. या राज्यघटनेने आपल्या प्राप्तिक संस्कृतीत वस्रत्वेल्था अचेक आधुनिक भूल्यांना आपल्या जीवनात महत्त्वाचे स्थान प्राप्त क्रिल आहे. राष्ट्रीय एकात्यता. सुसंघटित प्रशासकीय व न्यायालयीन व्यवस्था, सामाजिक भारता हो पुरुष संभावता. (अगपल्याकडे उपासना स्वातंत्र्य परंपरेने होतेच) विचार स्वातंत्र्याची व बाला अभिन्यक्तीची वन्याचे झालेली ओळख अशा कितीतरी गोष्टी आहेत, ज्या आपल्या समाजाने क्रिया पारक्षाशे त्रवाति विस्थावे आत्मसात केल्या आहेत. याचबरोबर या युरोपकेंद्री लोकशाहीच्या मादाही आता जाणबू लागल्या आहेत. या सर्च मूल्यांचे केवळ जतनच नव्हे, तर संवर्धन करीत नवी भातकेंद्री लोकशाही त्यवरथा विकसित होणे शक्य आहे काय, याचा विचार करण्याची वेळ आली 🍿 एकेकाळी सर्व प्रकारच्या आदशसाठी व उत्तरे शोधण्यासाठी युरोप, अमेरिका, रशिया, चीन, भाग आदी देशांकहे पाहण्याची संचय होती. आता आपल्याला तीन गोष्टींचे भान आले आहे. वाटत क्षेत्रसे हे देश आदर्श वाहीत ही पहिली. त्यांनाही आपल्यासारखेच प्रश्न आहेत, तसेच त्यांच्यातही णाजिक गुण=दोष आहेत असे लक्षात येऊ लागले. दुसरी गोष्ट म्हणजे आपण व आपली परंपरा माजत होतो तेबह्रे बाईट नाही. आपल्या समाजात, परंपरेत अशा अनेक गोष्टी आहेत, त्याची अजन्या काळातही उपयुक्तता आहे. त्यांचे संवर्धन केले पाहिजे. यातूनच हळूहळू आपण आपला बात्र भारतकेंद्री विचार करू शकतो. हा आत्मविश्वास येऊ लागला आहे ही तिसरी गोष्ट. भारतीयांचा माभात वाढणारा प्रभाव. भारताचे आंतरराष्ट्रीय क्षेत्रातील वाढते प्रभुत्व, ज्यांना आधुनिक विचारधारा हित्या जातात त्यांच्या जाणवणाऱ्या मर्यादा यातून आपल्याला नवा आत्मविश्वास निर्माण झाला ME

समारोप: भारताने गेल्या ७५ वर्षात विविध क्षेत्रांत पुष्कळ उल्लेखनीय व कौतुकास्पद माणि केली आहे. मात्र दुर्देवाने गेल्या काही वर्षांपासून या देशात दहशतवादी कारवाया वाढत भीता, त्याचबरोबर देशाला नैसर्गिक आपत्तींशीही सामना करावा लागतो आहे, त्यातच गेल्या दोन विपासन कोरोना च्या जागतिक संकटामुळे देशाला आर्थिक दृष्ट्या मोठा फटका बसला आहे,या भाषामा च्या जागतिक संकटामुळे देशाला आधिक दृश्या नाठा होती, देश स्वातंत्र्याच्या किए। प्रतिक संकटामुळे देशाला आधिक दृश्या नाठा होती, देश स्वातंत्र्याच्या किए। प्रतिक देश महामदीत जातो की काय, अशी परिस्थिती निर्माण झाली होती, देश स्वातंत्र्याच्या भूत पहोत्सवी वर्षात वाटचाल करत असतानाच एकीकडे विविध क्षेत्रांत केलेल्या विकासकामांचा भार आहे, तर दुसरीकडे, प्रचंड महागाई, वाढती बेकारी आणि बेरोजगारी, शेतकऱ्यांच्या होणाऱ्या जाह, तर दूसरीकडे, प्रचंड महागाई, वाढती बेकारी आण बराजगारा, राज्या अनेक भाषाहत्या, चीनसारख्या शेजारच्या देशांच्या कुरघोड्या, दहशतवादी कारवाया, यासारख्या अनेक भाषिक क्षान्यक होते की काय अशी शंका भिक्ष व पानवी संकटांमुळे देशाला आर्थिक व सामाजिकदृष्ट्या पिछेहाट होते की काय अशी शंका बाणा दाखवून आपल्या देशात शांतता प्रस्थापित करण्यात यश विकाल प्रत क्षेत्रात देश कठीण परिस्थितीत ही सक्षमपणे सामना करण्यासाठी सन्न प्रार दिले आहे, ही वस्तुस्थिती कुणालाही नाकारता येणार नाही त्यामळे आणा अमृतमहोत्सव साजरा करीत असतांना काही संकटांशी सामना करीत असलाती जिल्ला भविष्यात कणखर भूमिका निभावण्याची ग्वाही देत आहे, हे नकीच मान्य कार्व करि संदर्भ :

- १. समाज प्रबोधन संस्था २००२, जातीसंस्थेचे बदलते आधार, पुणे. समाज प्रवेदकार
- २. पळशीकर सुहास २००४, जात व महाराष्ट्रातील सत्ताकारण, सुगावा प्रकार 🧖
- ३. पळशीकर सुहास, जात व महाराष्ट्रातील सत्ताकारण, सुगावा प्रकाशन, एंगे.
- ४. पाटील जनार्दन १९९०, मंडल आयोग ओबीसीच्या लोकशाहीमुकीचा जाहीमान 📨 पाटील, पुणे.
- ५. बिरमल नितीन १९९९, प्रबल जातींचा प्रादेशिक पक्ष राष्ट्रवादी काँग्रेस, नमान जान ऑक्टो- डिसेंबर
- ६. पळशीकर सुहास आणि सुहास कुलकर्णी २००७, महाराष्ट्रातील स्तासंघर्ष उज्जे वाटचाल समकालीन प्रकाशन, पुणे.
- ७. पळशीकर सुहास २००४, व महाराष्ट्रातील सत्ताकारण, सुगावा प्रकाशन पुण
- ८. घोटाळे विवेक, दत्ताभिसे, लातूर जिल्ह्याची राजकीय प्रक्रिया, द्युनिक अर्केडमें







India in the 21st Century: Opportunities and Challenges



Editor

Principal Dr.B.S.Yadav Dr.Surekha Bhingardive Mrs.Vijaya Bhangude Patil



Published by

JSBSS EDUCATIONAL COUNSELING ANDASSISTANCE CENTRE

ISBN-978-93-5895-851-5



Title of Book: India in the 21st Century: Opportunities and Challenges

ISBN No.: ISBN-978-93-5895-851-5

Publication:

Self (Director, Educational Counselling and Assistance Centre, Mantha)

Publisher:

Educational Counselling and Assistance Centre, Mantha Tal. Mantha Dist. Jalna (M.S) 431504

Editor : Principal Dr.B.S.Yadav (Principal, K.J.S.College, Kopargaon)
Smt.Vijaya B Patil, Director, ECAC, Mantha
Dr.Surekha Bhingardive, HoD, Economics , KJSCollege, Kopargaon

Published: 30th April, 2023

Printing: - 30th April 2023

Rs:- 1100/-

Note: The Responsibility of every article is entire of the author not of the editorial board

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पर्यावरणावर आर्थिक घटकाचा परिणाम : एक दृष्टिक्षेप डॉ.सुरेखा भागुजी भिगारिवये अर्थशास्त्र विभाग प्रमुख के.जे. सोमैया कला,वाणिज्य व विज्ञान महाविद्याल,मोहनीराजनगर कोपरगाव.

पर्यावरण हा अलीकडील काळात सामान्य नागरिकांपासून सर्वांच्या चर्चेचा किंवा अध्ययनाचा विषय झालेला आहे. पर्यावरणाच्या अध्ययनास फार महत्त्व प्राप्त झालेले आहे. पर्यावरण ही संकल्पना शास्त्रीय दृष्ट्या बहुव्यापक अशी संकल्पना आहे. "पर्यावरण म्हणजे पृथ्वीवरील मानवाच्या सभोवतालची परिस्थिती होय." पर्यावरण निसर्गनिर्मित घटक व मानविर्मित सजीव घटक यांनी मिळून बनलेले असते. सध्या आर्थिक पर्यावरण, सामाजिक पर्यावरण अशा संज्ञा प्रचितत झाल्या आहेत. आधुनिक अर्थशास्त्रात समग्र पर्यावरण ही संकल्पना पुढे आली आहे. या संकल्पनेत नैसर्गिक घटकाबरोबर सामाजिक, आर्थिक व सांस्कृतिक घटकांचाही समावेश होतो. त्यामुळे पर्यावरण अभ्यास आंतरशाखीय स्वरुपामधे केला जातो. नैसर्गिक साधनसंपत्तीचे व्यवस्थापन करण्यासाठी आर्थिक व सामाजिक संस्था निर्माण झाल्या. आर्थिक वाढीचा आणि पर्यावरणाचा संबंध जवळचा आहे. आर्थिक वाढ ही राष्ट्रीय उत्पादन यावरून ठरते. विकसनशील व विकसित देशात नैसर्गिक संसाधनाचा वापर अमर्याद होत असल्याने अनेक समस्या निर्माण होऊन पर्यावरणाचा –हास होऊ लागला आहे.मानवी विकासाच्या योजना कार्यान्वित करतांना मानवाचे व सजीवांचे अस्तित्व पर्यावरणाच्या संतुलनावर अवलंबुन आहे हे मात्र विसरून चालणार नाही. मानवी जीवन खऱ्या अर्थाने सुखी समाधानी राहावे म्हणून निकोप आणि सुंदर पर्यावरणाची नितांत गरज आहे.

सूचक शब्द : पर्यावरण , आर्थिक संस्था व पर्यावरण , आर्थिक वाढ , पर्यावरण समस्या .

उद्दिष्टे:

- पर्यावरण या संकल्पनेचा अभ्यास करणे
- पर्यावरण व आर्थिक संस्था यांचा अभ्यास करणे
- आर्थिक वाढ व पर्यावरण समस्या यांचा अभ्यास करणे
 प्रस्तुत शोध निबंधासाठी दुय्यम साधन सामुग्रीचा अवलंब केला आहे.

प्रस्तावना :

समाज व सामाजिक पर्यावरण यांचा परस्परांवर परिणाम होत असल्याने सामाजिक परिवर्तनाची प्रक्रिया पर्यावरणात होत असते. पर्यावरण ही संकल्पना शास्त्रीय दृष्ट्या बहुव्यापक अशी संकल्पना आहे. उत्पत्ती शास्त्राच्या दृष्टीने " पर्यावरण म्हणजे पृथ्वीवरील विशिष्ट भागाशी निगडित असे मानवाच्या सभोवतालची परिस्थिती होय." Environ या मुळ फ्रेंच शब्दापासून इंग्रजीत Environment असा शब्द प्रचलित झाला आहे. याला पर्यावरण असे म्हणतात .पर्यावरण म्हणजे सभोवताची परिस्थिती होय. ही एक किंवा अनेक सजीवांच्या संदर्भात असते ती एक किंवा अनेक घटकाने मिळून बनलेली असते. काही घटक निसर्गनिर्मित तर काही घटक मानवनिर्मित सजीव घटक असतात. या विविध घटकांची परस्परिक्रया सातत्याने सुरू असते आणि त्यातूनच पर्यावरण निर्मिती होते.

पर्यावरण हा अलीकडील काळात सामान्य नागरिकांपासून सर्वाच्या चर्चेचा किंवा अध्ययनाचा विषय झालेला आहे. पर्यावरणाच्या अध्ययनास फार महत्त्व प्राप्त झालेले आहे. वनस्पतीशास्त्र, प्राणीशास्त्र ,भूगोल या विषयात पूर्वीपासूनच पर्यावरणाचे अध्ययन केले होते. सध्या आर्थिक पर्यावरण , सामाजिक पर्यावरण अशा संज्ञा प्रचलित होत आहेत. जागतिक पर्यावरण ही नवी संकल्पना आंतरराष्ट्रीय स्तरावर सुरू झालेली आहे. पर्यावरणात प्राकृतिक आणि निर्जीव जैविक किंवा सजीव घटकांचा समावेश होतो. भूमी ,नद्या, वनस्पती, प्राणी ,हवा या नैसर्गिक घटकांचा समावेश नैसर्गिक पर्यावरणात होतो. हवामान व मृदा प्रकार यावर नैसर्गिक वनस्पती अवलंबून असते. नैसर्गिक वनस्पतीवरच मानवाचे आर्थिक व्यवसाय आधारित असतात. सजीव सृष्टीत मानव बौद्धिक दृष्ट्या कुशल व क्रियाशील प्राणी आहे. परिस्थितीत बदल घडवून आणण्याचे कौशल्य मानवात आहे. मानवाच्या कौशल्यातून संस्कृती निर्माण झाली. तसेच समाज संस्थांची स्थापना झाली. आर्थिक, सामाजिक व नैसर्गिक मूल्यांची जडणघडण याच कौशल्यातून झाली आहे. अर्थात मानवी जीवनाच्या विकासाची प्रक्रिया ही नैसर्गिक परिवर्तनावर आधारलेली आहे. मानव, समाज, संस्था, मानवाचे आर्थिक व्यवसाय , राहणीमान व मानवाशी संबंधित असलेल्या इतर सर्व घटकांचा समावेश सामाजिक व सांस्कृतिक पर्यावरणात होतो.

आधुनिक अर्थशास्त्रात समग्र पर्यावरणी संकल्पना पुढे आली आहे. या संकल्पनेत नैसर्गिक घटकांबरोबरच सामाजिक,आर्थिक व सांस्कृतिक घटकांचाही समावेश होतो. समाज व सामाजिक पर्यावरण यांचा परस्परांवर परिणाम होत असल्याने सामाजिक परिवर्तनाची प्रक्रिया पर्यावरणात होत असते. त्यामुळेच पाच जून हा पर्यावरण दिन म्हणून दरवर्षी साजरा केला जातो. पर्यावरण अभ्यास आंतरविद्याशाखीय स्वरूपामध्ये केला जातो. मात्र मानवाने पर्यावरणाचा उपभोग घेताना संतुलनमूलक तत्वांकडे प्रत्यक्ष व अप्रत्यक्ष दुर्लक्ष केले. परिणामी पर्यावरणाच्या शास्त्रीय अभ्यासाची गरज उत्तरोत्तर वाढू लागली आहे.

जीवावरणात मानवी वर्चस्व अधिक आहे. ज्ञान व तंत्रज्ञानाच्या वाढीबरोबर संसाधनाचे नैसर्गिक साधन संपत्तीचे व्यवस्थापन करणे आवश्यक आहे. या हेतूने मानवाने विविध सामाजिक, आर्थिक ,राजकीय कायदेविषयक व सांस्कृतिक संस्था निर्माण केल्या. संस्था म्हणजे ठराविक हेतू साध्य करण्यासाठी निर्माण झालेले औपचारिक संघटन होय. ही संस्था शासकीय ,निमशासकीय व अशासकीय असू शकते. लोकांचे वर्तन व समाजात असलेल्या चालीरीती याही संस्थाच आहेत. लोकांच्या सहकार्याने वर्तणुकीवर नियंत्रण ठेवण्यासाठी नियम तयार करून राबवण्यासाठी मानव समाज संस्थांची निर्मिती करतो. विकासासाठी अनेक संस्था या नैसर्गिक संसाधनाचा वापर करतात. मानवी समाजातील उत्क्रांती बरोबर संसाधन वापराचे नवीन प्रकार निर्माण झाले. मानवी समाजाने पर्यावरण संसाधनाचे महत्त्व समजून घेऊन त्याची काळजी घेतली पाहिजे.

आर्थिक संस्था व पर्यावरण

मानवाच्या सर्व प्रकारच्या गरजा पूर्ण करणाऱ्या संस्थांना आर्थिक संस्था म्हणतात. आर्थिक संस्था राहणीमानाच्या दर्जावर अवलंबून असतात. आर्थिक वाढीमुळे मानवी समाजात आर्थिक ,सामाजिक, विषमता निर्माण होते. मानवी समाज नैसर्गिक संसाधनाचा अतिरिक्त, अमर्याद वापर करतो. तो पर्यावरणाचा ऱ्हास करतो . आर्थिक व्यवस्था मुख्य नैसर्गिक संसाधनावर अवलंबून असते. जिथे पर्यावरणीय शाश्वता आहे आणि पर्यावरण संवर्धन संरक्षणाचे कार्य केले जाते. तिथे आर्थिक शाश्वतता आहे. पर्यावरण संवर्धन ,संरक्षणाचे कार्य केले जाते. सर्वत्र नैसर्गिक पर्यावरण विविधता आहे. वेगळ्या भागातील आर्थिक विकासात असमान आढळून येतो. पर्यावरणातील अस्तित्व सुरक्षित,समर्थ व वृद्धिगत करण्याची प्रक्रिया म्हणजे विकास होय. पर्यावरणीय संपदांचा विकास प्रक्रियेत मानवाच्या अभौतिक विकास ही विज्ञान व तंत्रज्ञानाची मर्यादा समजावे. मानव विकासाच्या योजना कार्यान्वित करताना मानवाचे व सजीवांचे अस्तित्व पर्यावरणाच्या संतुलनावर आधारित आहे. हे मात्र विसरून चालणार नाही. मानवी जीवन खऱ्या अर्थाने सुखी समाधानी राहावे म्हणून निकोप आणि सुंदर पर्यावरणाचची नितांत गरज आहे. तसेच आर्थिक वाढ ही सर्वसमावेशक नाही. त्यामुळे समाजात वेगवेगळ्या उत्पन्नाच्या विविध राहणीमानाच्या गटांची निर्मिती होते. आर्थिक विषमतेचे गट निर्माण होतात. गरीब लोकांना श्रीमंत लोकांच्या तुलनेने कमी मोबदल्या व सवलती मिळतात.

कोणत्याही नैसर्गिक व्यवस्थापन धोरणात व नैसर्गिक संसाधन कार्यात नेहमी स्थानिक समुदायाचे ऐक्य व प्रत्यक्ष त्याचा सहभाग आवश्यक असतो. मानवाने सर्व प्रकारच्या स्तरांमध्ये व संस्थांमध्ये संसाधन संरक्षणासाठी अनेक नियम व कायदे निर्माण केलेले आहेत. एकूण राष्ट्रीय उत्पन्न ठरवितांना आर्थिक विकासाचा दर महत्वाचा मानला गेला. पण आर्थिक विकासाच्या पायांमध्ये नैसर्गिक व मानवी संसाधनाच्या दर्जांची प्रतिबिंब आढळून येत नाही. लोकांचे आर्थिक उत्पन्न वाढले. पण त्याचबरोबर किती पर्यावरणीय नैसर्गिक घटकांचा नाश झाला, किती नैसर्गिक घटकांचे जतन य संवर्धन केले पाहिजे याचा विचार केला जात नाही.

आर्थिक वाढीचा पर्यावरणावर होणारा परिणाम:

आर्थिक वाढ म्हणजे नवीन संसाधनांमधून एकूण उत्पादनात वाढ किंवा उपलब्ध संसाधनाचा उत्तम वापर होय. आर्थिक वाढ ही वाढलेल्या दरडोई उत्पन्नाच्या द्वारे मोजली जाते. आर्थिक वाढीचा आणि पर्यावरणाचा संबंध जवळचा आहे. पर्यावरणीय व अर्थव्यवस्थेतील संबंध महत्त्वपूर्ण आहेत. औद्योगिक उत्पादन हळूहळू वाढेल परंतु त्याच वेगाने पर्यावरणीय प्रदूरण वाढेल. पृथ्वीवरील नैसर्गिक संसाधने आर्थिक वाढीवर मर्यादा घालतात. या मर्यादा संसाधन प्रतिस्थापन, तांत्रिक प्रगती आणि संरचनात्मक बदलांच्या प्रमाणात बदलतात. नद्या इतक्या मोठ्या प्रमाणात आटल्या आहेत की केवळ सिंचन किंवा शेतीच नाही तर स्थानिक बदलांच्या प्रमाणात बदलतात. नद्या इतक्या मोठ्या प्रमाणात आटल्या आहेत की केवळ सिंचन किंवा शेतीच नाही तर स्थानिक परिसंस्था धोक्यात आल्या आहेत. गेल्या दशकापासून जगातील सर्वच देशांमध्ये अर्थव्यवस्थेत प्रचंढ वाढ झालेली दिसून येते. अलीकडच्या काळात चीन पाठोपाठ भारताचे आर्थिक व्यवस्थेत वाढ घढून आली आहे. आर्थिक वाढीवर अर्थव्यवस्थाचा विकास अवलंबून असतो.

आर्थिक वाढीचे फायदे:

आधुनिक जगात मानवी जीवनाचा उच्च स्तर हा दरडोई उत्पन्नावर व त्याच्या वाढीवर ठरवला जातो. दरडोई उत्पन्न व लोकांची क्रयशक्ती ही एकूण राष्ट्रीय उत्पादनावर ठरते. राष्ट्रीय उत्पादनाच्या आधारावर आर्थिक वाढ व्यक्त केली जाते. एकूण राष्ट्रीय उत्पादन, आर्थिक शाश्वता पर्यावरणीय शाश्वतता यांचा संबंध गेल्या दशकापासून अतिसूक्ष्म पद्धतीने अभ्यासला जात आहे. शाश्वतता महणजे चिरंजीवी किंवा कायम टिकून राहण्याची व्यवस्था होय. आर्थिक घटक हे कायम टिकून राहावेत महणून त्या घटकांचे व पर्यावरणाचे संवर्धन करणेच अधिक महत्त्वाचे आहे.

गरिबीतून बाहेर पडण्यासाठी लोकांना रोजगार मिळावा , अनेकांना नोकरी उपलब्ध व्हावी म्हणून आर्थिक वाढ केली बाते. लोकांची प्राप्ती वाढते. करवाढ करून सार्वजनिक फंडात आर्थिक पैसा जमा होतो. या फंडातून सार्वजनिक पायाभूत सुविधा करण्यासाठी लोककल्याणासाठी खर्च केला जातो. चांगल्या सुविधा उपलब्ध करून दिल्यामुळे परकीय भांडवलदार आकर्षित होतात.

आर्थिक वाढीशी संलग्न समस्या :

राष्ट्रात एकूण राष्ट्रीय उत्पादनावरून आर्थिक शाश्वतता ठरवली जाते. पण गेल्या काही दशकात पर्यावरणीय शाश्वततेवावत, असमानतेवावत सर्वत्र काळजी वाढली आहे. विकसित राष्ट्रांनी त्यांच्या व इतर देशांच्या नैसर्गिक संसाधनांचा वापर औद्योगीकरणाच्या सुरुवातीच्या काळात काही वर्ष जलद गतीने केला. जलद आर्थिक वाढ झाली पण त्यामुळे प्रदूषण, सामाजिक विषमता, पर्यावरणीय समस्या निर्माण झाल्या. दिल्ली येथील प्रदूषणाची समस्या, शुद्ध हवा , माळिण गाव, केदारणाथ येथील भुत्सखलण

विकसनशील किंवा अविकसित राष्ट्र :

विकसनशील देशामध्ये नैसर्गिक संसाधनाचा वापर करण्याकरता परकीय भांडवल मर्यादितपणे उपलब्ध असते. या देशांमध्ये परकीय उद्योजक व संस्थांना गुंतवणूक करण्यास भरपूर संधी मिळत गेली. विकसनशील देशांमध्ये नैसर्गिक संसाधनाचा शाश्वत वापर करण्याचे तंत्रज्ञान उपलब्ध नाही. पैशाची उणीव आहे याचा परिणाम हा हवा ,पाणी, मृदा या संसाधनाच्या प्रदूषणात अनिर्वंधपणे वाढ झाली. प्रदूषणाचा मानवी आरोग्यावर घातक परिणाम झाला. वाहनांची प्रचंड गर्दी झाली त्यांचे प्रदूषण, कारखानदारीचे प्रदूषण वाढत गेले. कोळसा व खिनज उत्खननामुळे कृषी योग्य क्षेत्र नष्ट झाले. जंगल क्षेत्रात घट झाली. विकसनशील देशांच्या आर्थिक वाढीचा फायदा काही ठराविक व मर्यादित गटाला भरपूर झाला. पण बहुसंख्य गरीब गट हा असुरक्षित होत गेला. आर्थिक वाढीमुळे गरीब श्रीमंत यांच्यात सतत तरी वाढत राहिली. गरीब अधिक गरीब झाले तर श्रीमंत अधिक श्रीमंत बनत गेले. यातूनच आर्थिक व सामाजिक विषमता वाढली. त्याचप्रमाणे अधिक आर्थिक वाढीचा लालसेने सतत पीक लागवड होऊन संसाधने नष्ट झाली. टाकाऊ पदार्थांमध्ये , कचऱ्यांमध्ये वाढ झाली. प्रदूषण वाढले, जागतिक तापमानात सुद्धा वाढ झाली. जैवविविधतेची हानी घडून आली. अनेक मौल्यवान घटक नष्ट होत गेले . कमी आर्थिक उत्पन्न असलेल्या गरीब कुटुंबांमध्ये कल्याणासाठी अधिक हात गरजेचे असल्याने अधिक अपत्यांना जन्म दिला. त्यातूनच दारिद्र्य वाढले. पर्यावरणाचा ऱ्हास होऊन उदरिनर्वाचे साधने नष्ट होऊ लागली. पर्यावरणीय ऱ्हासाला मुख्यतः लोकसंख्या वाढ जबाबदार आहे . जीवनाचा उच्चस्तर व राहणीमान यांच्यात फरक आहे. जीवनाचा उच्चस्तर हा आरोग्य , आनंद व शांतता समाधानाच्या संदर्भात असतो. तर राहणीमान हे वस्तू व पदार्थ सेवा यांच्या उपभोगाच्या संदर्भावरून ठरते.

निष्कर्ष:

पर्यावरण ही संकल्पना शास्त्रीय दृष्ट्या बहुव्यापक अशी संकल्पना आहे. समाज व सामाजिक पर्यावरण यांचा परस्परांवर परिणाम होत असल्याने सामाजिक परिवर्तनाची प्रक्रिया पर्यावरणात होत असते. पर्यावरणात प्राकृतिक आणि निर्जीव जैविक किंवा सजीव घटकांचा समावेश होतो. अर्थात मानवी जीवनाच्या विकासाची प्रक्रिया ही नैसर्गिक परिवर्तनावर आधारलेली आहे. मानवाने पर्यावरणाचा उपभोग घेताना संतुलनमूलक तत्वांकडे प्रत्यक्ष व अप्रत्यक्ष दुर्लक्ष केले. परिणामी पर्यावरणाच्या शास्त्रीय अभ्यासाची गरज उत्तरोत्तर वाढू लागली आहे. . एकूण राष्ट्रीय उत्पन्न ठरवितांना आर्थिक विकासाचा दर महत्वाचा मानला गेला. पण आर्थिक विकासाच्या पायांमध्ये नैसर्गिक व मानवी संसाधनाच्या दर्जांची प्रतिबिंब आढळून येत नाही. लोकांचे आर्थिक उत्पन्न वाढले. पण त्याचवरोवर किती पर्यावरणीय नैसर्गिक घटकांचा नाश झाला. किती नैसर्गिक घटकांचे जतन व संवर्धन केले पाहिजे याचा विचार केला जात नाही. .गेल्या काही दशकात पर्यावरणीय शाश्वततेबाबत,असमानतेबाबत सर्वत्र काळजी वाढली आहे. विकसनशील देशामध्ये नैसर्गिक संसाधनाचा वापर करण्याकरता परकीय भांडवल मर्यादितपणे उपलब्ध असते. या देशांमध्ये परकीय उद्योजक व संस्थांना गुंतवणूक करण्यास भरपूर संधी मिळत गेली. या प्रक्रियेत विकसनशील देशांची आर्थिक वाढ हे पर्यावरणाच्या संतुलनावर आधारित आहे. हे मात्र विवस्त्व चालणार नाही मानवी जीवन खऱ्या अर्थाने सुखी समाधानी राहावे म्हणून निकोप आणि सुंदर पर्यावरणाचे नितांत गरज आहे.

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अर्धिप



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जे. ई. एस. कॉलेज, जालना



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Mail.Id :-bhingardíve.surekha@gmail.com

गोषवारा :-

भारताने संघराज्य पद्धतीचा स्वीकार केलेला आहे. भारतीय संघराज्यातील उत्पन्नाः विभागणी अतिशय तर्कसंगत व परिपूर्ण आहे. भारतीय संघराज्यात केंद्र व राज्य सरकारे ग शास्त्रशुद्ध विभागणी तीन विभागांमध्ये करण्यात आलेली आहे. देशाचा सामूहिकपणे एकत्र विका असेल तर भिन्नतेचा विचार करून सर्व राज्यांना आवश्यक ती मदत केंद्र सरकार अनुदान योजनांच्या माध्यमातून करत असते. भारतीय राज्यघटनेत केंद्र सरकार व घटक राज्य सरकार साधनसामग्रीचे वाटप करण्यासंबंधीची तरतूद केलेली आहे. केंद्र सरकारने महसुलातील वय राज्यांना किती यावेत, राज्यांना कशी वितरित करावेत हे सुचवण्यासाठी दर पाच वर्षांसाठी कि विविध निकष सुचवत असते. भारताचे राष्ट्रपती राज्यघटनेच्या कलम २८० नुसार वित आयोगी शोधनिवंधाचे उदिष्टे :-

- १. केंद्र व राज्य वितीय संबंधाचा अभ्यास करणे.
- २. पंधराव्या वित्त आयोगाचा आक्ष्यास करणे .

सूचक शब्द : केंद्र राज्य संबंध, केंद्र राज्य जबाबदार्या व अधिकार ,पंधरावा वित्त आयोग . संशोधन पद्धत : प्रस्तुत शोधनिबंधासाठी दुय्यम साधन सामुग्रीचा वापर केला आहे.

भारताने संघराज्य पद्धतीचा स्वीकार केलेला आहे. केंद्र,राज्य व स्थानिक सरकारांचे कें निश्चित स्वरूपाचे आहे. देशातील राज्य व स्थानिक संघाने त्यांच्या उत्पन्नाच्या साधनाचे कि व्यवस्थित करणे आवश्यक आहे. भारतीय संघराज्यातील उत्पन्नाच्या साधनांची विभागणी औ तर्कसंगत व परिपूर्ण आहे. केंद्र व राज्याच्या महसुलाच्या व खर्चाच्या बाबी निश्चित आहे. केंद्र सर्वि राज्याला वितीय हस्तांतरण केले जाते. कर आकरणीचे सर्व अधिकार सहाट्या कलमाच्या स अनुस्चीतील केंद्र यादीत समाविष्ट केलेले आहे. घटनेच्या २८० कलमानुसार राष्ट्रपती वित अ केंद्र आणि राज्य सरकारच्या कार्याची विभागणी :-

केंद्र आणि राज्य सरकारच्या कार्याची विभागणी करताला कार्यक्षमता लिकष लावला जातो. म्र केंद्र व घटक राज्य सरकारला विभागून देण्यात आलेली वितीय साधने त्यांच्यावर सोपवण्यात जबाबदार्यांशी अनुरूप असावी लागते. भारतीय संघराज्यात केंद्र व राज्य सरकारे यांच्या कार्याची शर्म विभागणी तीन विभागांमध्ये करण्यात आलेली आहे. पहिल्या भागात कार्य व अधिकार केंद्र स्थि सोपवण्यात आलेले आहेत. दुसऱ्या भागात कार्य व अधिकार केंद्र एस. कॉलेज, जालना 60 (htt- Scanned with CamScanner

तिसऱ्या विभागात कार्य व अधिकार केंद्र आणि राज्य या दोघांकडे सामायिकपणे सोपवण्यात आलेले आहेत. याशिवाय उर्वरित अधिकार केंद्र सरकारकडे सोपवण्यात आलेले आहेत. या विभागाची सविस्तर माहिती पुढीलप्रमाणे;-

- केंद्र सरकार / मध्यवर्ती सरकार : संरक्षण, सशस्त्र दल, परकीय व्यवहार, जहाज, हवाई वाहतूक,राष्ट्रीय महामार्ग टपाल व तार, दळणवळण साधने इत्यादी
- घटक राज्य सरकार : पोलीस, शासकीय, सुटयवस्था, आरोग्य, सरकारी रुग्णालय ,दवाखाने, शिक्षण अपंगांना मदत, शेती,जलसिंचन इत्यादी
- सामायिक सूचीमध्ये : आर्थिक व सामाजिक नियोजन,फौजदारी कायदा दिवानी व नादारी, कामगार , किंमत, नियंत्रण इत्यादी.

भारतीय संघराज्यामध्ये प्रत्येक राज्याची भौगोलिक सामाजिक व आर्थिक परिस्थिती भिन्न स्वरूपाची आहे .त्यामुळे मार्ग देखील भिन्न आहे.प्रत्येक राज्याचे दरडोई उत्पन्न वेगळे आहे. त्यामुळे प्रत्येक राज्याचा विकासाचा दर वेगळा आहे. देशाचा सामूहिकपणे एकत्र विकास साधायचा असेल तर या भिन्नतेचा विचार करून सर्व राज्यांना आवश्यक ती मदत केंद्र सरकार अनुदान व विविध योजनांच्या माध्यमातून करत असते.

संविधानिक तरत्दी : -

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भारतीय राज्यघटनेत केंद्र सरकार व घटक राज्य सरकार यांच्यामध्ये साधनसामग्रीचे वाटप करण्यासबधीची तरतूद केलेली आहे. केंद्र सरकारकडून आका रवयाचे कर आणि राज्य सरकारकडून आकारावयाचे कर यांची दोन विभागात विभागणी करण्यात आलेली आहे. तसेच केंद्र व शज्य सरकारच्या कर,अधिकार कक्षा ठुरविण्यात आलेल्या आहेत. भारतीय राज्यघटनेत केंद्र सरकारच्या कायदेशीर अधिकार कक्षेत आणि घटक राज्य सरकारच्या कायदेशीर अधिकार कक्षेत कोणकोणते कर आहेत याचा उल्लेख केलेला आहे. उर्वरित कर आकरण्याचे अधिकार केंद्र सरकारकडे दिलेले आहेत.

केंद्र सरकारच्या करांची विभागणी :-

- जे कर केंद्र सरकारने बसवायचे वसूल करावयाचे आणि मिळणारे सर्व उत्पन्न केंद्र सरकारकडे स्वतःकडे ठेवायचे असे कर उदा. जकात कर,महामंडळ कर, उत्पन्न कर
- जे कर केंद्र सरकारने बसवायचे असतात आणि वसूल करावयाचे असतात परंतु त्या करापासून मिळणारे उत्पन्न केंद्र व घटक राज्य सरकारांमध्ये वाटावे लागते. उदा. उत्पन्न कर ,शेती उत्पन्न, उत्पादन
- जे कर केंद्र सरकारने बसवायचे वसूल करावेच असतात परंतु करापासून मिळणारे सर्व उत्पन्न राज्यांमध्ये विभागून द्यावयाचे असतात असे कर उदा. मालमनेवरील कर, वारसा कर, रेल्वे समुद्रमार्ग व हवाई मार्गाने वाहतूक केल्या जाणाऱ्या वस्तूंवरील कर

वित्त आयोग :-

केंद्र सरकारने महसुलातील वाटा, अनुदान राज्यांना किती यावेत राज्य राज्यांना कशी वितरित करावेत हे सूचवण्यासाठी दर पाच वर्षांसाठी वित्त आयोग विविध निकष सुचवत असते. भारतीय राज्यघटनेच्या कलम २८० मधील तरतुदीनुसार वित्त आयोग एक स्वतंत्र न्यायिक संस्था म्हणून कार्य करते.या वित आयोगाच्या कालावधी हा पाच वर्षाचा असतो. हा आयोग अनुदान यांच्या बाबतीत शिफारशी करतो त्यामुळे नेहमी बदलणाऱ्या गरजा आणि बदलणारी परिस्थिती पाहून उत्पन्न विभागणीची योग्य तरतूद होते. वित्त आयोगाची तरतूद हे भारतीय राज्यघटनेचे महत्त्वाचे वैशिष्ट्य आहे.

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अर्थशास्त्र विभाग जे. ई. एस. कॉलेज, जालना

(https://jesjalna.org/economics/index.html)

भारताचे राष्ट्रपती राज्यघटनेच्या कलम २८० नुसार वित्त आयोगाची नेमणूक करतात. एक अर व इतर चार सदस्य असे एकूण पाच सदस्य असतात. कलम २८० दोन नुसार वित्त आयोगाचा अध व सदस्यांची नेमणूक करण्याची पद्धती कशी असावी हे ठरवण्याचा अधिकार संसदेला दिलेला आहे. वित्त आयोगाच्या सदस्यांची पात्रता पुढीलप्रमाणे :-

- 1. सर्वोच्च न्यायालय किंवा उच्च न्यायालयाचा न्यायाधीश होण्याची पात्रता सदस्यांची असावी.
- 2. अर्थशास्त्राची मूलभूत ज्ञान असावे

वित्त आयोग खालील बाबी विषयक राष्ट्रपतींना सल्ला देण्याचे कार्य करतो.

- केंद्रीय कर उत्पन्नापैकी ज्या कराची विभागणी होऊ शकते ती विभागणी सुचिवणे
- > राज्यांना दिली जाणारे अनुदानाचे तत्वे निकष ठरवणे
- > केंद्र राज्यांमधील वित्त विषयक बाबी संबंधी मार्गदर्शन करणे
- राष्ट्रपतीने सुचवलेल्या वित विषयक वार्वीविषयी सल्ला देणे. पंधरावा वित्त आयोग ;-

पंधराव्या वित्त आयोगाचे अध्यक्ष श्री एन.के.सिंग आहेत. २७ नोव्हेंबर २०१७ ला त्यांची नेमण् करण्यात आली. या वित्त आयोगाच्या शिफारसीचा कालावधी २०२० ते २०२५ पर्यंत आहे. या आयोगाः सदस्य शक्तिकांत दास, डॉ. अनुप सिंग, अशोक लाहीरी ,रमेश चंद आणि सचिव अरविंद मेहता आहे. १५ ट्या वित्त आयोगाच्या शिफारसी खालील प्रमाणे :-

- राज्यांच्या वाट्यातील ४२ टक्के करांमध्ये कपात करून ४१ टक्के करण्याची करण्याचे शिफास
- जम्मू काश्मीर लडाख या नव्याने स्थापन झालेल्या केंद्रशासित प्रदेशांसाठी एक टक्का वाढ करण्यत
- प्रशासनाची कार्यक्षमता व्यव्वण्याची शिफारस केलेली आहे.
- आयोगाने राज्यांना कोणत्या निकषा अंतर्गत निधीचे वाटप केले जाते याचे निकष आणि प्रमाण
- पंधराव्या वित आयोगाने राज्यांच्या लोकसंख्येचे प्रमाण १५% प्रमाण नियुक्त केले. * केंद्र आणि राज्य सरकारांनी कर्ज एकत्रीकरणावर लक्ष केंद्रित केले पाहिजे आणि त्यांच्या संबंधी वितीय जवावदारी आणि वजेट व्यवस्थापन कायद्यानुसार वितीय कर्ज पातळीचे पालन करावे अशी
- शिफारस करण्याता आणा. सार्वजिनक आर्थिक ट्यवस्थापनासाठी वैधानिक चौंकट प्रदान करण्यासाठी कायद्याचा प्रमुख मसुद्र

गर करण्यासाण तम् केंद्र राज्यांमध्ये महसुली विभागणीच्या शिफारसींसाठी पंधरावा वित्त आयोग स्थापन करण्याचा कंद्रीय मंत्रिमंडळाच्या बैठकीत तत्वतः निर्णय घेण्यात आला. पंधराच्या वित आयोग स्थापन करण्याण करण्याण १०२५ पर्यंत होईन् के केंद्रीय मात्रमडळाच्या वर्ण्यात ... अंमलवजावणी १ एप्रिल २०२० पास्त ३१ मार्च २०२५ पर्यत होईल.केंद्र आणि राज्य संदर्भात महसुली विभागाचे निकष बदललल जाला. ... आयोगाच्या शिफारशी आधीच्या वित्त आयोगाच्या तुलनेत सर्वस्वी वेगळ्या असतील अशी अपेक्षा केंद्रीय आयोगाच्या शिफारशा आधाच्या वित्र जाता है अस्ती व्यक्त केली.महिला सबलीकरणासाठी राज्य, जिल्हा आणि तालुका पातळीवर पातळीवर अर्थमंत्री अरुण जटला याना व्याप प्राप्ता करण्यात येणार आहे.वेटी वचाव वेटी पढाव कार्यक्रम राबवला आईल.ग्रामीण लोकाना ।ऽ।जटल अव्यान ६२ (https://jesjalna.org/econom: with CamScanner शहमें मुदी -हो, शर्माचर कार्यन्दै पाटील , पैसा श्रीकेण आणि शलक्य ,चैपन्य एकरणन Datta and Sundharam , Indian Economy 5.Chand publication Lokal publics-linaracial Management , Assear Shah शा. स. मोदन, सार्वजिन आयाज्य, अच्छे दृश्चिकेशन https://www.nitinsir. https:// teachgraditratimes aum







India in the 21st Century: Opportunities and Challenges



Editor

Principal Dr.B.S.Yadav Dr.Surekha Bhingardive Mrs.Vijaya Bhangude Patil



Published by

JSBSS EDUCATIONAL COUNSELING ANDASSISTANCE CENTRE

ISBN-978-93-5895-851-5



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सहाय्यक प्राध्यापक,(अर्थशास्त्र विभाग) के.जे.सोमैय्या कॉलेज, कोपरगाव.

प्रस्तावना :-

2019 साली सुरू झालेल्या कोविड-19 च्या महामारीमुळे सांख्यिकी आणि कार्यक्रम अंमलबजावणी मंत्रालयाने जारी केलेल्या अधिकृत आकडेवारीनुसार, 2020-21 या आर्थिक वर्षाच्या एप्रिल-जून तिमाहीत भारतीय अर्थव्यवस्थेत 7.3% घट झाली आहे. मंत्रालयाने 1996 मध्ये त्रैमासिक GDP आकडेवारी संकलित करण्यास सुरुवात केल्यापासून आतापर्यंतची ही सर्वात वाईट घसरण आहे. 2020 मध्ये, लॉकडाऊन लागू झाल्यानंतर अंदाजे 10 दशलक्ष स्थलांतरित कामगार त्यांच्या मूळ ठिकाणी परतले. पण आश्चर्याची गोष्ट म्हणजे लॉकडाऊनच्या काळात ज्या स्थलांतरित कामगारांनी आपली नोकरी गमावली आणि आपला जीव गमावला, त्याबाबतची कोणतीही आकडेवारी राज्य सरकार किंवा केंद्र सरकारकडे नाही.

कोरोनाच्या दुसऱ्या लाटेत आपल्या मूळ ठिकाणी परतलेल्या स्थलांतरित कामगारांना सरकारने मदतीचा हात पुढे केला, फक्त डिजिटल-केंद्रीकृत डेटाबेस सिस्टमची स्थापना करण्याव्यतिरिक्त. कोविड-19 च्या दुसऱ्या लाटेने भारतीय अर्थव्यवस्थेतील विद्यमान असुरक्षा क्रूरपणे उघड केल्या आहेत आणि आणखी बिघडल्या आहेत. काही अत्यावश्यक सेवा वगळता भारताची \$2.9 ट्रिलियन अर्थव्यवस्था लॉकडाऊन कालावधीत बंद होती. दुकाने, भोजनालये, कारखाने, वाहतूक सेवा, व्यावसायिक आस्थापने बंद असल्याने, लॉकडाऊनचा अर्थव्यवस्थेवर विध्वंसक परिणाम झाला. अर्थव्यवस्थेच्या अनौपचारिक क्षेत्रांना जागितक महामारीचा सर्वाधिक फटका बसला होता. अनौपचारिक क्षेत्रांचा विचार केल्यास एप्रिल-जून दरम्यान भारताचा GDP आकुंचन 8% पेक्षा जास्त असू शकतो. खाजगी उपभोग आणि गुंतवणूक ही भारताच्या आर्थिक वाढीची दोन मोठी इंजिने आहेत.

शेती वगळता अर्थव्यवस्थेच्या सर्व प्रमुख क्षेत्रांना मोठा फटका बसला. दुसऱ्या लाटेच्या आगमनापूर्वी भारतीय अर्थव्यवस्थेला जोरदार धक्का बसला होता. मानवतावादी संकट आणि सरकारच्या मूक वागणुकीसह, कोविड-19 ने भारतीय अर्थव्यवस्थेतील विद्यमान असमानता उघड केली आणि आणखी बिघडवली. पुढील 4 तिमाहीत अर्थव्यवस्थेची संकुचितता कायम राहील आणि मंदी अपिरहार्य आहे. भारतीय अर्थव्यवस्था पूर्ण वर्षभर आकुंचन पावण्याच्या दिशेने वाटचाल करत आहे हे सर्वजण मान्य करतात. सेंटर फॉर मॉनिटरिंग इंडियन इकॉनॉमीने (SFMIE) केलेले सर्वेक्षण 2021 च्या एप्रिल-जून तिमाहीत 7.9% ते 12% पर्यंत बेरोजगारीच्या दरात प्रचंड वाढ दर्शविते. एमएसएमईनी त्यांचे व्यवसाय बंद केल्यामुळे अर्थव्यवस्थेवर मोठा परिणाम झाला आहे. लाखो नोकच्या कायमस्वरूपी गेल्या आहेत आणि उपभोग कमी झाला आहे. आरोग्य संकटाशी लढण्यासाठी आणि कोविड-19 प्रवृत्त झालेल्या मंदीतून आर्थिक पुनर्प्राप्ती जलद मार्गी लावण्यासाठी सरकारने अब्जावधी डॉलर्स खर्च करण्यास तयार असले पाहिजे. या आणीबाणीतून बाहेर पडण्याचा सर्वात प्रभावी मार्ग म्हणजे सरकारने अब्जावधी डॉलर्स अर्थव्यवस्थेत टाकले पाहिजेत.

केंद्राच्या नोटीस लॉकडाऊनला प्रतिसाद म्हणून GDP वाढ 23.9% घसरली होती. 2020-21 मध्ये भारताचा GDP 7.3% कमी झाला. स्वातंत्र्यानंतरच्या कोणत्याही वर्षातील भारतीय अर्थव्यवस्थेची ही सर्वात वाईट कामगिरी होती. आत्तापर्यंत, भारताचा जीडीपी विकास दर १० टक्क्यांच्या खाली असण्याची शक्यता आहे.

केंद्राच्या वित्तीय संकलनासाठी नियंत्रक जनरल ऑफ अकाउंट्स डेटा 20 लाख कोटी रुपयांचा सकल-कर महसूल (GTR) आणि 2020-21 साठी 14 लाख कोटी रुपयांचा निव्वळ कर महसूल सूचित करतो. कर महसुलात 12 टक्के वाढ होईल, याचा अर्थ 2020-21 साठी अंदाजित एकूण आणि निव्वळ कर महसूल अनुक्रमे 22.7 लाख कोटी आणि 15.8 लाख कोटी रुपये असेल.

यावरून केंद्राला काही अतिरिक्त निव्वळ कर महसूल अंदाजपत्रकाच्या परिमाणांच्या तुलनेत रु. 0.35 लाख कोटी सृचित होतो. मुख्य अपेक्षीत तूट अजूनही कर-विरहित महसूल आणि कर्ज-विरहित भांडवली पावर्त्यांमध्ये असू शकते. जर आपण भूतकाळात नजर टाकली तर, कर-विरहित महसूल आणि कर्ज-रहित भांडवली प्राप्तीसाठी वाढीचा दर अस्थिर होता, परंतु जर आपण ते एकत्र जोडले तर 2020-पूर्वीच्या पाच वर्षांत ते सरासरी 15% पेक्षा थोडे कमी झाले.

कोविड-19 मुळे विविध क्षेत्रांवर कसा परिणाम झाला आहे ते खालीलप्रमाणे.

आदरातिथ्य क्षेत्र :-

अनेक राज्यांनी स्थानिक लॉकडाऊन लादल्यामुळे, हॉस्पिटॅलिटी क्षेत्राला 2020 ची पुनरावृत्ती होत आहे. हॉस्पिटॅलिटी क्षेत्रात रेस्टॉरंट्स, वेड आणि ब्रेक्फास्ट, पब, बार, नाइटक्लब आणि बरेच काही यांसारख्या अनेक व्यवसायांचा समावेश आहे. भारताच्या वार्षिक GDP मध्ये मोठ्या प्रमाणात योगदान देणाऱ्या या क्षेत्राला राज्यांनी लादलेल्या निर्वंध आणि कपर्यूचा मोठा फटका बसला आहे.

पर्यटन क्षेत्र :-

हॉस्पिटॅलिटी क्षेत्र हे पर्यटन क्षेत्राशी बोडलेले आहे. लाखो भारतीयांना रोबगार देणारे क्षेत्र पहिल्या लाटेनंतर परत येऊ लागले, परंतु कोविडची दुसरी लाट पुन्हा विनाशाकडे आली भारताच्या वार्षिक GDP मध्ये पर्यटन क्षेत्राचा वाटा जवळपास ७% आहे.

त्यामध्ये हॉटेल्स, होमस्टे, मोटेल आणि बरेच काही समाविष्ट आहे. दुसऱ्या लाटेमुळे आलेल्या निर्वधांमुळे पर्यटन क्षेत्र अपंग झाले आहे, जे 2020 मध्ये व्यवसायांना झालेल्या सुरुवातीच्या तोट्यातून सावरण्यासाठी आधीच संघर्ष करत होते.

विमान वाहतूक आणि प्रवास क्षेत्र :-

साथीच्या आजाराच्या दुसऱ्या लाटेदरम्यान विमान वाहतूक आणि इतर क्षेत्रातील आस्थापनांना मोठ्या संघर्षाचा सामना करावा लागला. मोठ्या प्रवासी क्षेत्रालाही फटका बसत आहे कारण लोक घराबाहेर पडण्यास घाबरत आहेत. एअरलाइन्स आणि व्यापक प्रवासी क्षेत्रासाठी, त्याची पुनर्प्राप्ती भविष्यात लोक अशा सेवांची निवड करतील की नाही यावर अवलंबृन असेल. सध्या विमान वाहतूक आणि व्यापक प्रवास क्षेत्राचा दृष्टीकोन चांगला दिसत नाही.

ऑटोमोवाईल क्षेत्र :-

भारतातील कोविड-19 च्या परिस्थितीमुळे नजीकच्या काळात ऑटोमोबाईल क्षेत्र दबावाखाली राहण्याची अपेक्षा आहे. रिअल इस्टेट आणि वांधकाम क्षेत्र :-

मोठ्या संख्येने स्थलांतरित कामगारांनी शहरी भाग सोडल्यामुळे दुसऱ्या लाटेत रिअल इस्टेट आणि बांधकाम क्रियाकलापांमध्ये व्यत्यय येऊ लागला आहे. या क्षेत्रासाठी २०२० पर्यंत परिस्थिती गंभीर नाही.

वित्तीय तूट :-

कोविड-19 महामारीचा आमच्या वित्तीय तूट आणि निर्गुतवणुकीच्या लक्ष्यावर फारसा परिणाम झालेला नाही. या वर्षीच्या केंद्रीय अर्थसंकल्पात, अर्थमंत्री निर्मला सीतारामन यांनी 2021 ते 2022 साठी 6.8% चे वित्तीय तूट लक्ष्य जाहीर केले. 2020-21 साठी भारताची राजकोषीय तूट GDP च्या 9.5% पर्यंत वाढली आहे जी आधी अंदाजित 3.5% होती. आमच्या अर्थमंत्र्यांनी 2025-26 पर्यंत जीडीपीच्या 4.5% एवढी वित्तीय तूट गाठण्याचे आश्वासन दिले आहे आणि वाढीव कर अनुपालनाद्वारे तसेच मालमत्ता मुद्रीकरणाद्वारे वाफाळलेल्या कर महसुलात वाढ केली आहे.

सरकारने फेब्रुवारी 2020 मध्ये सादर केलेल्या मध्यम-मुदतीच्या वित्तीय धोरणाच्या विधानानुसार, 2021-22 आणि 2022-23 साठी वित्तीय तूट अनुक्रमे 3.3% आणि 3.1% होत.

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India in the 21st Century: Opportunities and Challenges



Editor

Principal Dr.B.S.Yadav Dr.Surekha Bhingardive Mrs.Vijaya Bhangude Patil



Published by

JSBSS EDUCATIONAL COUNSELING ANDASSISTANCE CENTRE

ISBN-978-93-5895-851-5



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EMPLOYMENT AND ENTREPRENEURSHIP OPPORTUNITIES THROUGH AGRO-TOURISM IN INDIA

Dr. KhoseMaharudraBibhishan

Assistant Professor, Department of Economocs,

KJ.Somaiya College of Arts, Commerce and Science, Kopargaon, Dist-Ahmednagar (Maharashtra)

Introduction: •

Agricultural Tourism is a worldwide trend which offers City dwellers a chance to escape urban concrete and re-discover their rural. In addition visiting farmers, agronomists and other agricultural experts can evaluate worldwide developments in agriculture, which have been greatly influenced by modern technology. Modern technology gave a new face to Agriculture in the form of Agro-Tourism. Tourism is nowadays well acknowledged as an engine of growth in the various economies in the world. Several countries have transformed their economies by developing their tourism potential. Tourism has great capacity to generate large-scale employment and additional income sources to the skilled and unskilled. Today the concept of traditionaltourism has been changed. Some new areas of the tourism have been emerged like Agro-Tourism. Promotion of tourism would bring many direct and indirect benefits to thepeople.Agro-tourism is a way of sustainable tourist development and multiactivity inrural areas through which the visitor has the opportunity to get aware with agriculturalareas, agricultural occupations, local products, traditional food and the daily life of therural people, as well as the cultural elements and traditions. Moreover, this activity bringsvisitors closer to nature and rural activities in which they can participate, be entertainedand feel the pleasure of touring.

Concept of Agro-Tourism:-

In general, Agro-tourism is the practice of attracting travelers or visitors to an area or areas used primarily for agricultural purposes.

Agricultural Tourism is the Holidays concept of visiting a working farm or any agricultural, horticultural, or agribusiness operations for the purpose of enjoyment, education, or active involvement in the activities of the farm or operation.

Agro-Tourism is that Agri-Business activity, when a native farmers or person of the area offers tours to their agriculture farm to allow a person to view them growing, harvesting, and processing locallygrown foods, Such as coconuts, pineapple, sugar-cane, corn, or any

agriculture produce the person would not encounter in their city or home country. Often the farmers would provide a home-stay opportunity and education.

Agro-Tourism and Eco-Tourism are closely related to each other. Eco-Tourism provides by the tour companies but, in the agro-Tourism farmers offer tours to their agriculture farm and providing entertainment, education and fun-filled experiences for the urban people. Moreover, this activity brings visitors closer to nature and rural activities in which they can participate, be entertained and feel the pleasure of touring.

Objectives:-

The objectives of this paper are as follows:

- To understand the concept and scope of Agro Tourism
- Toknow the employment and entrepreneurship opportunities through agro-tourism
- To identify potential of Agro Tourism in Maharashtra

Scope of Agro Tourism:-

Agro-Tourism has great Scope in present contact for the following reasons-

- An inexpensive gateway the cost of food, accommodation, recreation and travel Tourism. This widens the Tourist base. Present concept of travel and tourism is limited class which constitute only small portion of the population, however, the concept of travel and tourism to the larger population, widening the scope of tourism due to it.
- Curiosity of the urban population about the farming industry and life style. Agro-Tourism has the capacity to satisfy the curiosity of this segment of population scope for re-discoursing the rural life which is rich in diversity.
- Strong demand for wholesome family oriented recreational activities.
- Health conscious urban families search pro-nature villages to make life more peaceful.
- Desire for peace and tranquility: Every individual attempts to work more, different directions to earn more modern contorts. Hence, peace is always out of his system.
 Tourism is the means location. Peaces of tranquility are inbuilt in Agro-Tourism as it is away from urban people.
- Interest in natural environment: Busy urban population is leaning towards nature.
 Environment is always away from busy life.
- In resorts and cities, over crowd disturb each others peace. Hence, peace is beyond cities
 and resorts. Even though village atmosphere in the sub urban areas artificially provided
 through resorts, farm houses, it looks like, tiger colour. Artificiality is highlighted and
 not satisfying.

- Agro-atmosphere in the villages, there is scope to develop like agri-shoping, culinary tourism, pick and own your tree plot, bed and breakfast, camel riding, boating, fithing, berbal walk, rural games and health.
- Educational value of Agro-Tourism:

Agro-tourism could create awareness about rural people about rural peoples about agriculture science among urban school children's.

Employment and Entrepreneurship Opportunities through Agro-Tourism in India

Agro-tourism has tremendous potential for increasing farm incomes and stimulating the development of a dynamic, diversified rural economy. In many developed countries, Agrotourism has become an integral part of the tourism industry. It is being pursued as value addition to farming and as allied business that enable farmers and rural communities to harness the optimal benefits of the multifunctional nature of agriculture and natural resources in rural areas. This trend also gave rise to more demand for visitor's accommodations and created opportunities for home stays and bed-and-breakfast types of businesses. The development of these interlinked enterprises also generated other benefits to rural communities such as better environmental and cultural awareness, preservation of cultural heritage sites, and agrobiological diversity. Thus in those more advanced countries, some farms are developed not only for the production of food, fiber, and various agro products but also as tourism enterprises in the countryside. Day long interactive sessions with Stakeholders of Agro-tourism in India is organized to encourage the farming community to take up Agro-tourism to double the farm income by 2022. ATDC will honor several awardees with the "World Agro-Tourism Awards 2019"

Considering all those Farmers who have made the significant contribution to promote and showcase the Agro-Tourism Concept to the World.Population of India has increased five times than that existed in 1947, after partition the land got divided and subdivided per generation, currently only one fourth of the land is available on an average per person as compared to year 1947.

Agriculture as a business is becoming more and more expensive and many farmers cannot afford it. Add to this the gradual loss of fertility of land that is giving diminishing yields. Unless and until the farmers start business of any form to compliment and support to their income from land, they shall be doomed to eke out a bare existence below poverty line. In order to encourage farmers to establish small and viable business like Agro-Tourism units on the farm in the

villages, ATDC has formed guidance assistance committee to tender advice and technical knowhow.

- 75 to 85 % of Indian Population lives in rural villages.
- On realizing their difficulties and needs we feel there is still many things than can be done for these people.
- The ATDC has been concentrating its efforts all along for the overall upliftment of the farmers in rural villages.
- 90% of the rural community earns it's livelihood from agriculture directly or indirectly.
- To improve the standard of living of the rural people there is need to improve and
 increased the per capita income from farmers land. For this new approaches beyond
 traditional farming will have to implement in their farms. Agro-Tourism is one of them.
- The rural youth particularly the school drop outs and educational backward neglected rural women constitute more than 50% of our rural population.

Unless we undertake welfare activity for this section of the community social upliftment remains uncompleted. We think these women can be good host and help in preparing authentic rural rustic food for the Agro-Tourism guests in rural areas. The Agri Tourism Development Corporation has always been diverting its efforts as per the changing needs of the section of the social fabric; the ATDC shall continue to do the same... ATDC since inception has completed 12 years and on 16th May enters into 13th year, of its journey of prompting Agro-Tourism to help Indian rural social economy to flourish and help rural youth to earn good respectable living in the village and farm itself.

AgroTourism in Maharashtra

The state of Maharashtra is the pioneer state to develop and promote Agro-Tourism in the country. Agri Tourism Development Corporation incorporated in 2005 and owns the pilot Agro-Tourism project of 28 acres in Palshiwadi, talBaramatiDist Pune, 70 kms from Pune city. The main activities include operating its Agro-Tourism centre along with encouraging more farmers to take up Agro-Tourism, conducting training and research programs. This is an umbrella platform wherein most of the tourist reservations are booked and then tourists are sent to different centers. This saves on the marketing cost of the farmers. They may themselves also take the bookings. ATDC only provides a helping hand. ATDC the umbrella organization for the Agro-Tourism, practices what is preached, by successfully operating its owned pilot Agro-Tourism project.

In 2007, ATDC launched Training and skills development programs with Maharashtra State Agro-Tourism VistarYojana, first 52 farmers were selected in Maharashtra and the story continues This Agro-Tourism model has been replicated in 328 Agro-Tourism centers across 30 Districts in Maharashtra, which has helped to conserve, enhance the village environment, village traditions and culture, customs, village arts and handicrafts. Agro-Tourism model gives the authentic experiences to the visitors by showcasing village culture, agriculture, traditions that has helped gain sustainable supplementary income source and generated local employment. The concept of Agro-Tourism is very simple, whereby the urban tourists go the farmers home; stay like a farmer, engage in farming activities, experience the bullock cart, tractor ride, fly kites, eat authentic food, wear traditional clothes, understand the local culture, enjoy the folk songs and dance, buy fresh farm produce and in turn the farmer maintains home and farm hygiene, greets new tourists, sells his farm produce at a better price, earns a livelihood all year round.

The ATDC survey in 2014, 2015, 2016 shows that 0.40 million, 0.53million, 0.7 million tourists have visited these centers respectively totally generating 35.79 million Indian rupees to farmer's family, generated jobs to women and youth in the rural communities. This created a win situation for not only the farmers or the tourists but also for the Government. Not only was the farmer happy to stay in the farm and the tourist satisfied to buy farm fresh produce, but the Government accepted us with open arms as Agriculture Tourism was given a major boost in Maharashtra Tourism Policy 2016.

ATDC (Agro-Tourism India) Project's objectives are

- To develop and promote agricultural tourism (Agro-Tourism), through ATDC's projects, training and support as a potential vehicle for diversifying and stabilizing rural economies.
- Creating jobs, increasing farming community income, providing a broader market base,
 opportunities for on-farm employment so they do not have to migrate to urban areas.
- Agro-Tourism income to improve their livelihoods, traditional forms of art and music in rural areas 4.Increasing awareness of local agricultural products, enhancing understanding of the importance of maintaining agricultural lands there by strengthening the long term sustainability of small farms.

Following partners have encouraged ATDC in developing Agro-Tourism

- Tourism Policy 2016 initiative that has included Agro-Tourism as the major focus area
 to help small farmers Tourism Department Government of Maharashtra. One
 important policy decision taken is the "compulsory educational tour to Agro-tourism
 centers" for fifth to tenth standard school students.
- Marketing and Promoting Agro-Tourism under "Mahabhraman Scheme" –
 Maharashtra Tourism Development Corporation
- Helping small farmers getting financial support through banks to develop Agro-tourism centers – NABARD (National Bank for Agriculture and Rural Development) this apex bank in rural development in India

Some of the successful agro-tourism stories

- BaramatiAgri Tourism Center Palshiwadi owner ATDC- Pune district
- AnandKrushiParyatan Kendra owner AnandraoShinde Satara District
- AbhishekKrushiParytan Kendra Owner RajuBhandarkavtekar Solapur District
- BhumiAgri Tourism Center Owner GhanshyamJogdand Washim District
- DirgayuAgri Tourism Center owner KotkarPravin Thane District
- EkantAgri Tourism Center owner RuturajIngale Kolhapur District
- BhorkarAgri Tourism Center owner PremchandBhorkar Latur District
- SapttparniAgri Tourism center owner AvinashBhake Nagpur Distreit
- Jai Shree KRISHNA Agri Tourism Center Anuradha Patil Nandurbar Distreit
- Drum Stick Agri Tourism Center UdayChanddorkar Nashik District

There are many more success stories from each district of Maharahstra State.

Supports to the Agro-Tourism in Maharashtra

Promotion of Agro-Tourism involves some more important stakeholders namely Ministry of Agriculture and rural development ministry of the state and central governments. To promote domestic tourism, thrust areas identified by the government of India for the development of infrastructure, product development and diversification, development of eco-adventure sports, cultural presentations, providing inexpensive accommodation etc. The government has also realized the importance of agro-tourism. The Planning Commission of India had constituted a Working Group for the formulation of Tenth Five Year Plan on Tourism. It has accorded high priority to tourism as an instrument of employment generation and poverty alleviation in rural and backward areas by developing the potential of agro tourism to supplement farm incomes, and heritage tourism to promote village development. Agriculture Tourism Development

Corporation-ATDC is the main promoter of this activity in the Maharashtra. ATDC is promoting agriculture tourism for achieving income, employment and economic stability in rural areas. It help to boosting a range of activities, services and amenities, provided by farmers and rural people to attract urban tourists to their area thus providing opportunity to urban people to get back to the rural roots". ATDC is now providing following facilities to the farmers of Maharashtra;

- Prepares agri tourism project report and business plan of the each applicant.
- Agriculture farmHelps to the financial support by the nationalised banks, institutes and government.
- Agencies to builtagri and rural tourism facilities and infrastructure like accommodation, sanitation, approach road etc. Conducts agro-tourism business training program.
- Conducts seminars and conferences on agro-tourism business
- Conduct lectures of the successful national and international farmers in agro-tourism business Provides sales and marketing support.
- Conducts and coordinate tours from urban areas to the farms.
- Arranges national as well as international agri tourism center study tours.
- ATDC has entertained national as well as international visitors etc.

Agro-Tourism Potential in Maharashtra

Maharashtra is the third largest state of India, both in area and population. It is located on the west coast of India with a 720 km long coastline along the green Konkan region. Nestled in the Western Ghats and the Sahyadri mountain ranges have several hill stations and water reservoirs with semi-evergreen and deciduous forests. There are many tourist centres in Maharashtra which are the supporting natural environment for the agrotourismcentres in Maharashtra. Although, Maharashtra has a total 22368 thousand hacter area uder the agriculture and 36122 thosaunds of livestock (cow, beffelows,goats etc.). Principal crops include rice, Jowar, Bajra, wheat, pulses, turmeric, onions, cotton, sugarcane and several oil seeds including groundnut, sunflower and soyabean. The state has huge areas, under fruit cultivation of which mangoes, bananas, grapes, and oranges etc. Maharashtra is blessed with a rich and diversified cultural heritage. The state has several communities belonging to different religions, and a number of festivities colours the culture of Maharashtra with the spirit of exuberance. Some of the popular festivals that are celebrated in Maharashtra are Diwali, Ganesh Chaturthi, GudhiPadwa, Dasara, Nag Panchami, GokulAshtmi, NaraliPournima, Pola, MakarSankranti,

Banganga Festival and Holi etc. More than 4.11 core (43 percent of total) population is living in the urban areas of the Maharashtra, which will become a customer of the agro-tourist centres located in the rural areas. Other than nature and culture there is an enough road and rail connectivity in urban rural areas to travel in rural Maharashtra.

Conclusion:-

India has a great potential to the development of agro—tourism, because of natural conditions and different types of agro products as well as variety of rural traditions, festivals. More than 31% of population is live in urban areas and they want enjoy rural life and want to know about the rural life. It is a good opportunity to develop an agro-tourism, but there is a problem of low awareness about this business in the farmer and problem of finance and proper view in the farmers.

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MULTIDISCIPLINARY STUDIES: PROSPECTS AND PROBLEMS IN MODERN ERA

OIES: EMS





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Published in the year: July 2022

Published By:

Princeton Press

Overland Park, Kansas - 66212, USA

Website: www.princetonpress.us

Title: Multidisciplinary Studies: Prospects and Problems in Modern Era

ISBN: 978-920-5-20223-5

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A STUDY ON PERCEPTION OF ENTREPRENEURS TOWARDS CHALLENGES IN TECHNOLOGY ADOPTION IN STARTUPS

Dr. Ganesh K Chavhan* Santosh Ram Pagare** Shailendra Kashinath Bansode***

*Associate professor, K. J. Somaiya College of Arts Commerce and Science, Kopargaon Dist, Ahmednagar, Maharashtra.

**Professor, Department of Commerce, K.J Somaiya College of Arts, Commerce and Science, Kopargaon, Dist-Ahmednagar, Maharashtra.

***Assistant Professor, Department of English, K.J Somaiya College of Arts, Commerce and Science, Mohiniraj Nagar, Kopargaon, Ahamednagar, Maharashtra

ABSTRACT

The advancement of Information Technology and computerization, IT industry became one of the emerging industries in 1990s and India became an important Information Technology service provider hub to the global community, which was supported by encouraging parameters like knowledge know-how, fresh talent availability due to the increased number of engineering graduates in India and the emergence of knowledge workers which was lacking in the western world. After the Year 2000, these technology Service providers extended their services to various industries and domains with the ever-changing and emerging technologies. In the early 2000s, IT industry witnessed dotcom boom and while IT as an industry by then had become a cri backbone of many businesses, it became defect a goal of organizations to survive and grow in economy with other competitors in the global world. The specific objectives of the study are to overview the growth prospects of startups in India to find out the socio economic characteristics of the sample respondents. The research at hand employed the quantitative technique using survey methods to attain this purpose. 250 sample respondents have been eventually chosen for the research. The researcher concluded that the role that the government plays in creating an environment that is beneficial to the growth of new businesses may also be investigated. It is of the utmost importance to conduct an investigation into whether or not the efforts being made by the government are heading in the appropriate direction

Keywords: Support services, Start-up Enterprises, Challenges and Entrepreneurial Ecosystem

BACKGROUND TO THE RESEARCH STUDY

Entrepreneurship takes a woman entrepreneur into a totally different sphere in life. Women not just creates an opportunity for herself to bring her dreams to reality but, she also plays a vital role to bring in significant transformation in the society. This has been a challenge for a lot of women in the initial juncture forcing them to surrender their interests or sacrifice their dream of becoming a business woman halfway due to the discouragements and lack of perseverance in overcoming the challenges. Entrepreneurial venture has been defined by the Government of India in 2006, as 'A business that is owned and managed by a woman, in which the woman has at least a 51 percent financial stake in the company's capital. A entrepreneur has hidden potential that realizes due to the demanding role in the society and economic conditions. She has to overcome many challenges to fulfill her dreams and become financially independent.

NEED FOR WOMEN ENTREPRENEURS IN THE ECONOMY

The role of women in our society has changed drastically in the past few decades. The business ventures that were considered as masculine are now conquered by the women entrepreneur. The gender stereotypes are breaking in the society slowly. Women participation in the economic activity is just 25% wherein they constitute around 48% of the total Indian population. In India, compared to other countries, the gender gap in the overall workforce is the poorest. This inequality unswervingly distresses the economic development of the

country. Therefore, there is a need to understand business challenges faced by startup during the initial stage and growth stage to sustain the business venture.

- 1. Economic Growth: The invasion in the entrepreneurial ventures by the women leads to the significant economic growth and development. Women entrepreneurs have exceptional predisposition to build and uphold long term business relationships. Compared to their male counterparts, women entrepreneurs have more effective organizational and communicational skills. This ability helps them to network more appropriately that result in the reduced risk of failures of the organization. Thus the untapped potential of the women entrepreneurs has to be employed towards the innovation, job creation and economic growth. Generally, more number of women entrepreneurs validates for the improved economic growth and stability within a country.
- 2. Narrowing Gender Gap: A recent McKinsey Global Institute reports that by minimizing the gender gap in the labour force participation holds the potential to add \$12 trillion to global GDP by 2025. 7 This gives us a fair idea as to how the narrowing gender gap by empowering women entrepreneurs. This is achieved by bringing in the social and economic equality and inspiring more women to take up entrepreneurial ventures. When women become successful, the next generation of women also imitate their success, which results in their continuous economic participation and rapid growth in the economy.
- 3. Organizational Culture & Safety at Workplace: Women led organizations have a tendency for better organizational culture, transparency and high values by maintaining a healthier employee relationships across the organization. This is possible for the simple reason being the struggle of the women to maintain a work life balance have taught them to be more flexible, sensitive to the health and safety issues of the employees. Women entrepreneurs have the ability to resolve employee grievances effectively.
- 4. Social Change: When a women entrepreneur is successful, her happiness and the levels of confidence is increased with a boost in their self-esteem and overall well-being. The financially empowered and independent women invest a substantial amount of their income for the health and education of their children, thus building a healthier and educated future generation. This leads to an incredible social change. In the words of Former President Dr APJ Abdul Kalam, "Empowering women is a prerequisite for creating a good nation, when women are empowered, society with stability is assured. Empowerment of women is essential as their thoughts and their value systems lead to the development of a good family, good society and ultimately a good nation." Thus, the Indian economy needs more women entrepreneurs. The successful women in business encourages and attracts more women to become entrepreneurs themselves.

CHALLENGES FACED BY WOMEN ENTREPRENEURS IN INDIA

In India, there is a huge difference in the variety of opportunities available to women as compared to men. The most of the business opportunities come from their home and lifestyles. The women entrepreneurs are at a disadvantage because they are doubted with their skills and personality traits required to be an entrepreneur. This affects their confidence making it difficult for them to walk on an unknown and unpredictable path as compared to the male entrepreneurs who are mostly more confident and are able to take and bear the business risks. Forbes/ Entrepreneurs magazine says that 90% of the new ventures of the women entrepreneurs fail as there is a difference about the perception of failure by men and women. Women take failures more personally and possibly avoid taking any further risks. Indian women face challenges right from ideation, mentorship, fund raising to finding the right team. Often, there are too many social barriers in the way of networking or bouncing of ideas. It becomes almost imperative for women to convince bankers, for example, that they are indeed creditworthy. Convincing families that they are on the right track is another hurdle. Women entrepreneurs face difficulty in availing sufficient finance. The major reason for this is gender bias. Women cannot give collateral security to the financial institutions to avail the credit facility as they do not usually have any property on their names. Thus, their access to the external financing is restricted. Also, the banks contemplate that women do not priorities on their business and thus can any day quit from it, thus consider them as a little less credit worthy and discourage them to borrow funds,

Dun and Bradstreet. 1999. _The challenges of managing a small business: Small business talks to small business

Multidisciplinary Studies: Prospects and Problems in Modern Fra Travelling for the business is always been difficult for women. It is not easy for them to move around with Travelling for the business is always been difficult for women. It is a sufficient with an awfully suspicious with an awfully suspicious eyes in the unsupportive family, the officials and in the unsupportive family. safety and without being questioned. A single woman is meanly like unsupportive family, the officials, and the like and the like and the same at becoming an entrepreneur. This is mainly become India. Also the humiliation the women have to undergo of their homes as they are not very well at the women here lead a more secured life within the four walls of their homes as they are not very well educated which is a and also not financially independent. Thus, their business risk bearing ability is reduced, which is the most and also not imancially independent. Thus, then because the recent years, there have been significant efforts important ingredient in the successful entrepreneurship. In the recent years, there have been significant efforts from both the private and public sectors to improve the entrepreneurial ecosystem resulting in positive changes; however, there are still gender gaps in entrepreneurship which puts the female population at a disadvantage.

Women still remain underrepresented among the business owners and face disproportionately high barriers when trying to start and grow their businesses. Challenges of women entrepreneurs are myriad and often the result of complex entrepreneurial ecosystems, their motivations, attitudes and the socio-cultural environment in which they exist. Women entrepreneurs face additional barriers related to custom due to the social norms that dictate their role in the society. They have less time available due to the existing gender division of labour and child care activities. Norms around mobility are also restrictive for women entrepreneurs.²

STARTUP STRATEGIES ADOPTED FOR BUSINESS SETUP AND GROWTH OF BUSINESS

Madireddy (2010)³ has conducted a phenomenological study on Management and Leadership Challenges in achieving success by technology Start-ups with the sample data based in Silicon valley, CA, USA with the sample of 22 participants. He has captured the success factors in technology startups relevant to Silicon Valley. The findings are organized and presented in the order of categories of the successful start-up phenomenon: (a) project planning and execution strategies factor, (b) project monitoring strategies factor, (c) project reporting strategies factor, (d) hiring strategies factor, (e) product strategies factor, (f) patenting strategies factor, and (g) outsourcing strategies factor. The results indicate that patenting tactics, outsourcing techniques, and product strategies such as concurrent multi-products might be successful for technological start-ups. The consequences for leadership included the rise of transactional and transformational leadership as the most significant success criteria to achieving success in a given endeavor. The interview procedure was restricted to participants from a certain geographic region, namely Silicon Valley in California. The current study was restricted to only focusing on start-ups in Silicon Valley. This helped to identify the reasons for start-up failures or successes that were unique to Silicon Valley while excluding the reasons for start-up failures or successes in other locations. As a result, the results cannot be generalized to all start-ups in the same sectors located in other regions or to all start-ups in other sectors worldwide.

Varit (2014)4has conducted a research study based on case studies key aspects of startup and innovation strategies for high-tech small and medium-sized enterprises in Thailand. The purpose of this study is to investigate the link between start-up variables, innovation methods, and the business performance of high-tech entrepreneurs in Thailand. The research utilizes a qualitative approach and uses descriptive statistics. For the purpose of computing results, a case study of four entrepreneurial businesses as well as in-depth interviews with their CEOs and founders were carried out. According to the findings of the survey, three out of four businesses rely on an imitation approach, while just one business utilizes a first mover strategy. They all utilize a tactic of forming alliances. Although every firm has seen growth over the previous three years, the first mover company has had the greatest growth rate. Every entrepreneur has a high readiness of company start-up factor, but the pace at which their companies expand is unique to them. There are just four examples total, which is a small number that prevents a generalization of the entrepreneurial theory from being made.

Kathleen M. Eisenhardt, Jeffrey A. Martin, 2000. Dynamic capabilities: what are they? 'Strategic Management Journal, Volume 21. Issue 10-11, Pages 1105-1121

JayaramMadireddy. 2010. Management and leadership challenges in achieving success by technology startups: A phenomenological study', PhD Dissertation, University of Pheonix.

VaritIntrama, 2014. Business Start-Up Factors and Innovation Strategies Case Study: HiTech SME in Thailand', International Journal of the Computer, the Internet and Management Vol.22 No.1, pp ,53-61,

It's possible that the sample firms, which are all part of the Information Technology cluster, aren't the best representations of high technology clusters.

NEED FOR THE STUDY

It is more crucial than ever to make choices for your money that are deliberate and well-informed. Because of the increasing responsibility that is being placed on people to make wise financial choices, the significance of having a solid understanding of personal finance is something that cannot be minimized. To be able to pay their living expenses for a longer period of time and the fact that the financial climate seems to be changing at a quicker rate, individuals must have collected more cash prior to retirement. Costs and earnings have usually continued to climb to the point that having an income or retirement nest fund that a few years ago would have been lavish now looks to be just about acceptable. This is because there are more financial possibilities and there are more choices of financial services. Therefore, the purpose of this study is to gather evidence regarding the level of financial literacy held by university students in Ethiopia, present that evidence to the government in the form of recommendations for areas of improvement, and incorporate those recommendations into the process of designing a curriculum that will most effectively raise the level of financial literacy held by students. As soon as students reach a high level of financial literacy, the nation's economic growth will increase since these students are the future generations who will have the capacity to govern the country.

STATEMENT OF THE PROBLEM

Financially knowledgeable individuals knows how to manage activities related to money, how to save and invest, how financial institutions do their business and owns analytical abilities to make informed decisions. Furthermore, they would know how they should handle their financial affairs and how to be responsible financially for their self and family. Financially literate persons are able to prepare financial budget, understand the importance of saving and protect their savings, when they spend they do it wisely, when they make big purchase they do it for items that are worthwhile. Financial knowledge helps in differentiating the advantages and disadvantages of debt, pay attention to portfolio, income, expense, saving and investment.

OBJECTIVE OF THE STUDY

The primary purpose of the research is to analyze the difficulties that information technology services Startups in India encounter throughout the early setup and development stages of their businesses. The specific objectives of the study are:

- To overview the growth prospects of startups in India
- To find out the Socio economic characteristics of the sample respondents
- To investigate which finance mode is common among the sample population.
- To overview the challenges in technology adoption in Startups

OBSERVATIONS AND FINDINGS

Research Design

Technology seems to be the industry of choice for many of today's aspiring business owners. It's a broad, fastgrowing field that attracts investors and venture capitalists, and if you succeed, the payout potential is enormous. The allure of launching a tech startup is easy to understand, but some entrepreneurs fail to consider the unique risks they'll face in the competitive world of technology. After completing a literature analysis, the research discovered that various studies have supported each of the identified characteristics of entrepreneur. The next stage was to acquire an empirical proof of the same. The research at hand employed the quantitative technique using survey methods to attain this purpose, 250 sample respondents have been eventually chosen for the research.

FINDINGS

1. Socio economic characteristics

The socio-economic characteristics of the entrepreneurs are important factors to influence startups. In this perspective, the nature of the sample respondents is given below. The age, gender, income level and level of spending are the variables considered in the study.

Table 1: Gender

Gender	Frequency	Percent
Female	128	51.2
Male	122	48.8
Total	250	100

The above table shows that out of 250 sample respondents, majority of the respondents are male (48.8) and female are 51.2%.

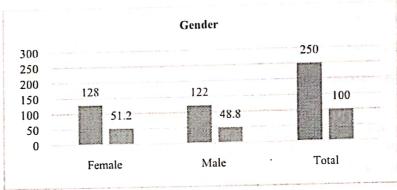
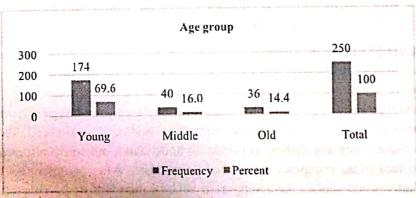


Table 2: Age group

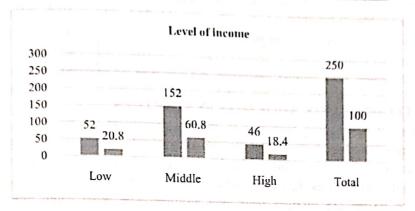
Age group	Frequency	Percent
Young	174	69.6
Middle	40	16.0
Old	. 36	14.4
Total	250	100



According to the age group, 40 (16.0%) respondents belong to the middle age group, 174 (69.6%) are from the young age group and 36 (14.4%) respondents are from the old age group.

Table 3 Level of income

Level of income	Frequency	Percent
Low	52	20.8
Middle	152	60.8
High	46	18,4
Total	250	100

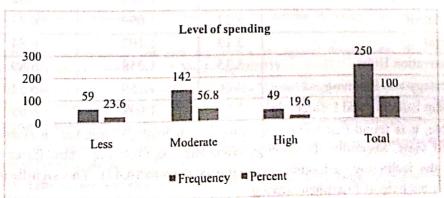


The respondents are grouped based on their level of income as given in the above table. 152 (60.8%) respondents are from middle income family, 52 (20.8%) respondents belong to the low income group and 46 (18.4%) from high income group.

Table 4 Level of spending

Frequency	Percent
59	23.6
142	56.8
49	19.6
250	100
	59 142 49

The distribution of the respondents according to their level of spending towards the online shopping indicates that 142 (56.8%) respondents are spending moderately, 59 (23.6%) respondents spending less and 49 (19.6%) respondents are spending more towards online shopping.



Mode of Finance Opted By the Start-Ups

Mode of finance opted from the data collected through online questionnaire showed that the most common mode of finance opted by the start-ups is followed by Bootstrapping (10.4%)., bank loans (24.8%), Seed funds (15.2%), Venture Capital (9.2%), Crowd Funding (6.8%), Microfinance (16.4%) Government schemes (9.2%) and others (8%)

Table 5 Mode of Finance

Mode of finance	Frequency	Percent
	26	10.4
Bootstrapping	62	24.8
Bank Loans	38	15.2
Seed Fund	23	9.2
Venture Capital		6.8
Crowd Funding	17	
Micro Finance	41	16.4
Government Schemes	23	9.2
	20	8.00
Others Total	250	100
lotai		

CHALLENGES IN TECHNOLOGY ADOPTION IN STARTUPS

The wealth and poverty of developing countries is entirely dependent on the entrepreneurial nature of their economies. The entrepreneurship has played an important role in economic growth, innovation, and competitiveness and it may also play a role over time in poverty alleviation (Landes 1998)Entrepreneurial women were polled on the difficulties they faced while establishing their businesses as well as those they face now; these two sets of issues are distinct from one another. The most often cited difficulties are those associated with finances and marketing in either case. However, people-related obstacles are more difficult now than they were when the company was just getting started, demonstrating that as teams develop, so do the difficulties connected with them. Personal challenges, such as bandwidth and time management, on the other hand, drastically decrease, which suggests that women's confidence in their own abilities as business owners has increased over the course of their experience.

Table 6: Challenges in technology adoption in Startups

Factors	Mean	Std. Deviation	Mean Rank
Marketing	3.28	1.179	6.39
Financial	3.16	1.146	6.02
Product	3.14	1.021	6.70
People	3.42	1.087	6.26
Technology	3.58	1.234	6.86
Process	3.29	1.237	6.27
Knowledge	3.26	1.189	6.52
Personal	3.21	1.099	6.47
Legal	3.13	1.102	6.84
Innovation Hubs	3.35	1.258	6.89
Strategy and Planning	3.26	1.259	6.52
Team Building and Leadership	3.07	1.098	6.09

From the above table, it is found that technology adoption in Startups, Innovation Hubs (6.89) one from the respondents point of view. Secondly, Technology considered as most important factor (6.86). Legal(6.84). Another feature of the technology adoption in Startupsis Personal(6.47). The significance of the result of ranking is tested with the help of Friedman ranking.

Table 7: Friedman Test

N 250	Botab if your hotel capacit to show
Chi-Square 25.582	conditions of the design of the shoot
df 11	sta filiate satisfication and the file of
p 0.006	

The ranking result from 250 sample respondents shows the difference in the ranking for each factor is significant. The calculated Chi-Square value is 25.582 for the degree of freedom 11 is more than expected level. The value of probability is 0.006. It shows that the ranks given by the respondents are significant.

CONCLUSION

In a nutshell, the current study contributes significantly to the body of knowledge that may be usefully used by In a husions, policymakers, and practitioners. This study contributes to start-up entrepreneurs, universities, academic researchers, and nations that are working towards knowledge-based, innovation-driven economies, where entrepreneurs play important roles, by addressing the need to improve entrepreneurial support in order to avoid wasting the R&D efforts of researchers. In other words, the study addresses the need to improve entrepreneurial support in order to avoid wasting the R&D efforts of researchers. Theoretically, this study adds value to the existing body of literature by bringing up important factors such as mentoring support, links to industry, social networks, the prior work experience of the entrepreneur, the feasibility of technology, the product, and the market, etc. that deserve more research attention to better understand start-up success as well as dealing with the challenges that are associated with being an entrepreneur. In a subsequent study, maybe this facet will be included into the process of constructing a prototype for market research. It is possible to do research on each stage of the life cycle of financial analysis for a startup. When it comes to designing a financial plan for the introduction of a product, there are a few different measurements that can be established that might be beneficial. In further research, the role that the government plays in creating an environment that is beneficial to the growth of new businesses may also be investigated. It is of the utmost importance to conduct an investigation into whether or not the efforts being made by the government are heading in the appropriate direction. It is possible to carry out research in order to learn which programme or policy is used by the vast majority of new businesses and the factors that contribute to this phenomenon.

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FUNDAMENTAL CONCEPTS OF HUMAN RESOURCE MANAGEMENT



DR. SANTOSH PAGARE
DR. C. SOUNDAR RAJAN
DR. R. ANTONY PRAKASH
DR. RENUKA DESHMUKH



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FIRST EDITION

AUTHORS

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(SCIENTIFIC INTERNATIONAL PUBLISHING HOUSE)

Fundamental Concepts Of Human

Title of the Book:

Resource Management

Edition: First - 2023

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future.

ISBN: 978-93-5625-602-6

MRP: Rs. 600/-

PUBLISHER & PRINTER: Scientific International Publishing

Contact: +917019991025

Website: www.sipinternationalpublishers.com

Author's Profile



Professor Santosh Pagare, is a highly skilled and cogent at the area of Commerce and Management with excellent team dynamics and expertise in Burner and area of Commerce Accounting. He is Vice-Principal and Head of Commerce faculty mrkes to Large of Arts, Commerce and Science, Kopargaon Dist-Ahmednagar in Maharashtra which is a vicinity and the Savitribal Phule Pune University. He has a teaching experience of 21 years and is the research garde in the subject of Business University. He has published three patents till date and has seven books to his credit of which four Administration. He has published three patents till date and has seven books to his credit of which four books are authored and three edited. He has published around 45 research papers in various national and international journals, 8 articles in books and 12 articles in conference proceedings. He is a MSME certified auditor for Quality Management (ISO) and has experience in organising conferences in college at national and international levels. He is a University certified Soft Skill Trainer and NAAC Co-ordinator since last twelve years.



Dr. Soundar Rajan. C, has nine years teaching and five years research experience in the field of Management Studies served in different Colleges since 2014. Currently He is serving as "Head of the Department" in Indra Ganesan College of Engineering, Tiruchirappalli, India. He was awarded Ph.D. degree in "Stock Return Behaviour and Seasonal Anomalies in the Indian Stock Market" Coimbatore Institute of Management and Technology which is affiliated by Bharathiar University, Coimbatore in 2015. The author Having a cumulative research experience of five years which includes 24 months as project fellow in the UGC Major Research Project entitled "Financial Modeling and Simulation of Indian Universities" by Coimbatore Institute of Management and Technology, Coimbatore, India. He has been invited as Speaker / Resource Person / Subject Expert at Faculty of Management Studies in different colleges. He has supervised many post-graduate students for the research and projects fulfillment of their degree program. He has so far written one book, 15 research paper in the journal of National and International level. He has presented more than 20 papers in the journal of National and International Conference. He is specialized in the area of interest in teaching and research includes HRM and Finance especially Capital Market field.



Dr. Antony Prakash. R, has Twelve years of teaching and two years business experience in the field of Management Studies served in different Colleges since 2008. Currently He is serving as "Associate Professor" in MIET Engineering College, Tiruchirappalli, India. He was awarded Ph.D. degree in "Competency Mapping in Banking Sector" at Bharathidasan University, Trichy in 2016. He has been invited as a Chief Guest/ Speaker/ Resource Person / Subject Expert at Faculty of Management Studies & Engineering College in different colleges and Schools. He has supervised many Post-Graduate students for the research and projects fulfillment of their MBA & M.Phil degree programs. He has so far 6 research paper in the journal of National and International level. He has presented more than 14 papers in the journal of National and International Conference. He is specialized in the area of interest in Teaching and Research



Dr. Renuka Deshmukh, received her Bachelors in Business Administration in Marketing domain from North Maharashtra University, Masters in Business Administration in Finance and HR and Doctorate in the field of Banking and Finance from North Maharashtra University. She has around 20 years of teaching experience. She started her career as lecturer in Godavari Institute of Management & Research and later at Institute of Management & Research, Jalgaon. She worked as Assistant Professor in Sinhgad Institute of Business Administration & Research, Pune, worked as Assistant Professor at Vishwakarma Institute of Management, and as Associate Professor at Sai Balaji Institute, Pune. Presently she is working as Assistant Professor in Vishwanath Karad MIT World Peace University, School of Management (PG), Pune.She has published three patents. She is guiding 1 PhD scholar in Dr Vishwanath Karad MIT World Peace University. BOS member preparation and updation of syllabus, conduction of BOS meeting. Has been appointed as External Senior Supervisor for papers, checking quality of question papers. NAAC coordinator NAAC criteria 2 coordinator. IQAC member guided and evaluated various MBA projects.



ISBN 978-93-5625-602-6



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SUB THEME: DIGITAL CURRENCY

An Overview of Trends in Digital Currency

Professor S. R. Pagare,

Faculty of Commerce and Management,

K. J. Somaiya College of Arts, Commerce and Science, Kopargaon-423601

INTRODUCTION:

Currency has since its first use: changed, improved, and grown in its role in our society, it has with new ideas and technologies become a more and more powerful tool to help with trade and barter. True change and innovation came from China's Tang dynasty around the 7th century in the Valley of the Yellow River and with the introduction of paper currency. Another great leap came with the introduction of the Internet which introduced many new possibilities such as; online banking, e-commerce, and a more globalized world. In the early 1980s, the idea of digital cash was introduced by David Chaum. Almost fifteen years later, the first widely used digital currency was introduced, e-gold. E-gold grew to several million users and was shut down in 2008 by the US Government. 2008 might have been the end for e-gold, but it was not the end of digital currency.

In 2008 a paper called "Bitcoin: A Peer-to-Peer Electronic Cash System." was published by an unknown group or individual called Satoshi Nakamoto. A few days into 2009 Bitcoin was live and the first block was created, called the genesis block. It works partly just like a traditional currency in that it is a way to store value to simplify trade. The many different implementations of digital currency provide a wide variety of advantages and disadvantages with much research into more widely accepted usage and even potential replacements for traditional currency.

Bitcoin is a cryptocurrency and holds the largest part of today's market and is valued very high. The value of Bitcoin and Ethereum is created artificially and price fluctuations tend to stay uncorrelated to the regular stock market, though Bitcoin has recently shown signs of moving with the traditional stock market. It is worth what people are willing to pay for it and the rapid increase in total market capitalization has created new cryptocurrencies and has motivated new research in the area. Since this is a new area of technology there will be rapid price fluctuations, since no one yet knows what it should be worth, if anything at all.

NATURE AND SCOPE:

There has been a lot of research into specific technologies for digital currency and different monetary policies, but there is a lack of breadth and these studies often only analyze only one specific digital currency. Currency as a whole is used in many different ways and has been changed and challenged throughout time, the recent introduction of digital currency has indicated that there might be ways to improve upon current systems. There has been a growing interest in digital assets and for new methods of payments. Wider acceptance has led to an increase in value and many new

implementations. Now with many common and companies account for many for question is, how they has appeared. implementations. How were many symmetry and for concept of digital surrancy, the question is how they for opinion of the state of the s title for concept of digital concerns, me operation of different situations (depolerated to second and different situations (depolerated to second solutions). Currency look, and now so we want to a second in digital companies and an deposition of the second flag of the second sec of private currencies showcase he text for a government-conscilled against

Currency is a medium of exchange for goods and services Concessor was interested to soive the problem in barier trade between two parties where eather has set something the other person wanted it acts as a tool to more value and a tool represent anything and everything which simplifies reading A surgice of the known as paper or come, issued by a government and recognized a 2 or 18 law. main idea has temained constant for some time. Namely, it is a tool used a square value so that things of different categories can be compared using he same not by with time, new variations and improvements have been imposed for complete

Currency can be summarized to have three use cases, a hold for remaring medium to store value, or to work as a unit of measure.

- A unit of account for the pricing of goods and services.
- 2] A method of storing value.
- 3] A medium of exchange that facilitates sconomic and financial ramacions.

I cannactions can be smaller taily transactions, requiring any access and their me easy usage. It could be a large ransferring of funds over long distances, which might not necessarily require fast transactions, but rather needs cheap transaction. Joining of value should be safe, reliable, and easy to withdraw when needed and at mases me could also be considered important. Comencies today need to do a lot and need a write effectively in many different scenarios for both parties included in these actions. improvements across all areas might be hard to achieve but looking a different area of usage there might be opportunities. Currency is used in many different ways and can take on many different forms. It can for example be represented by physical cast, a number stored in a bank account, or as a digital token stored or a nockelan.

FIAT CURRENCY:

First formal, or traditional currency is the oldest type of currency. It is a government-backed correccy that is regulated by different numeary policies. This type of currency works furnish a central bank and relies on tust in the system expensions for issuing money and controlling the monetary policies. This type of canency can be used both as physical cash and florogh online platforms.

DIGITAL CURRENCY:

Digital Currency is a new concept popularized with the rapid rise of the Internet. The real difference between fast currency and digital currency is the fact that one has physical representation and the other does not although the lines are increasingly becoming blurred

There are three main types of Digital Currency. The idea of Central Bank Digital Currency is to create an improved fast currency that is issued and compiled by a Commence Proceeding (Commence)

government. Compared to Cryptocurrencies, which for the most part work completely de-centralized CBDC's will most likely be fully centralized, with little power for individual users.

Virtual currencies on the other hand work differently. A virtual currency is a currency used in a virtual world that can indirectly hold value in real life. For example, the game World of Warcrast has an entire economy in its game that is centralized and controlled by the developers of the virtual world who have full control of the monetary policy.

TECHNOLOGY BEHIND DIGITAL CURRENCY:

Cryptography:

Most implementations of digital currency, if not all, depend on safe and efficient cryptography. Where the power of cryptocurrency comes from being able to safely distribute the whole ledger for everyone involved, while still only allowing the right people to spend their currency. The underlying mathematics and algorithms have to stay ahead of the rise in computing power, and with the rise in computing power, this has been a hot topic as of late. The main idea of cryptography is to make specified information readable or editable by only those who should have access. There are many types of cryptography and great cryptographic algorithms should be infeasibly hard to crack and quite fast to encrypt/ decrypt for those who should be able to. Strong cryptography allows digital currencies to store data on a public ledger, provides a safe mechanism for ownership, and can allow for strong consensus on what is the correct history.

MINING:

Mining in the world of digital currency means validating transactions and creating new blocks for the blockchain. People or groups who mine, invest resources and in turn, get rewards for creating and adding new blocks to the ledger. In decentralized digital currencies, this is how new units of the currency are minted. For example, in Bitcoin, this reward is slowly decreased with time by a set amount and the minting is thereby statically controlled and predetermined. A central bank digital currency that is controlled by a central bank might be dynamically controlled so that minting is based on different monetary policies and mining might not be open to the public network. The market could also allow miners to demand fees for processing transactions and in PoW mining has been profitable enough to create specifically designed hardware and entire facilities dedicated to processing transactions.

Transactions could take on different forms for different digital currencies but most often includes information about the amount, where it is sent to, and who the current owner is. An example is the transactions of Bitcoin consist of the public key for the next owner, a hash, and the signature from the current owner. The use of the private key and digital signatures creates a valid and verifiable transaction, and the use of timestamps makes double spending impossible invalid transactions. Transactions in digital currencies could potentially be instantaneous, though for many digital currencies, the validation takes a lot longer. The transaction itself can be considered instant, but the verification can take anything from seconds to over an hour depos

the implementation.

The receiver will need to wait for a new block to be added with the transaction that the sender had the correct amount and that the The receiver will need to want to a
the chain, thereby confirming that the sender had the correct amount and that the placed in a the chain, thereby confirming that the sense.

of the transaction was correct. Until then the transaction will be placed in a built validation. Depending on the implementation of the sense. of the transaction was correct. Onto the implementation of the transactions that await validation. Depending on the implementation of the transactions could require a fee to be paid and the speed of the transactions could require a fee to be paid and the speed of the transaction of the transaction was correct. transactions that await validation. Dependent and the speed of making the currency, transactions could require a fee to be paid and the speed of making the currency. The Bitcoin blockchair to transaction until it is verified and validated will vary. The Bitcoin blockchain transaction until it is written minutes. Users might want to wait for a few error. new block roughly every ten minutes. Users might want to wait for a few extra block roughly every ten minutes with said transaction before considered. new block roughly every ten inneces.

to be added on top to of the block with said transaction before considering to be added on top to of the block with said transaction before considering to be added on top to of the block with said transaction before considering to be added on top to of the block with said transaction before considering to be added on top to of the block with said transaction before considering to be added on top to of the block with said transaction before considering to be added on top to of the block with said transaction before considering to be added on top to of the block with said transaction before considering to be added on top to of the block with said transaction before considering to be added on top to of the block with said transaction before considering to be added on top to of the block with said transaction before considering to be added on top to of the block with said transaction before considering to be added on top to be added on top to of the block with said transaction before to be added on top to be transaction to be verified. By waiting a few extra blocks, the risk of a longer in

DIGITAL CURRENCIES:

There are multiple categories of digital currency and each sub-category category implemented in different ways and aim to solve different problems. This part problems a few of the largest implementations of digital currency as of today's market in temperature. of valuation. The idea is to clarify the different ways in how a digital currency on h implemented and to showcase that so far there is no one single idea. Cryptocures a subspace of digital currency and is most likely the one most commonly assessed with digital currency. It is an idea based on cryptography and utilizes blocking technology to create a topper system that allows online payments directly better parties and is based on an agreement of what data is valid by the use of consense algorithms. The term blockchain is oftentimes confused with cryptocurrency iself in is only a part of the entire cryptocurrency itself. There are varying implementations cryptocurrency, trying to specialize in different problems.

Bitcoin is the largest cryptocurrency as of today in terms of size was one of the in digital currencies. Created in 2009, Bitcoin is currently worth roughly one Indian dollars, which is a large portion of the digital currency market of today. It is around a decentralized ledger with transactions being validated through the constitution called a reactions being validated through the constitutions algorithm called proof-of-work. The idea is that as long as the majority of all work power belongs to trusted nodes Bitcoin will remain secure. Voting or mining require resources in the form of computing power and electricity. These costs are incentived in good behavior, rewarding these miners with a reward in the form of a predetermined number of bitcoins. These land the form of a predetermined and the form of number of bitcoins. These large price fluctuations have made Bitcoin and compensations are believed to the state of the st cryptocurrencies as highly risky and are among the largest reasons for not accepted

The main idea of Bitcoin was to create a peer-to-peer version of electronic and the payments without the second payments with the second payment payments with the second payments with the seco allowing online payments without the need to trust any third party for validation.

Bitcoin protocol was the first to solve the need to trust any third party for validation. Bitcoin protocol was the first to solve the problem of double-spending. This was shed by including timestamps in the transactions' hash, forming a record that come changed without redoing the PoW for all a contractions. changed without redoing the PoW for all following blocks. The longest chain server

proof of what the current state is, being produced and accepted by the majority. As long as the majority of computing power lies in the hands of honest nodes, these should always outpace the attackers. Nodes in the network can leave and rejoin, accepting the longest valid chain as the only true one. Using hexadecimal addresses, this decentralized network is pseudo-anonymous, meaning that all transactions can be traced to the corresponding addresses, but not directly to a user.

Bitcoin uses cryptography to keep information secured. The cryptographic algorithm used is called SHA-256 and stands for Secure Hash Algorithm. The bitcoin protocol applies this hash algorithm twice for redundancy, adding an extra layer of security for eventual improvements in future technology and knowledge. To keep blocks in the ledger as compact as possible, the protocol uses Merkle Trees. By hashing transactions into a Merkle Tree and only storing the root, space is saved, meanwhile, the blocks' hash does not break. In Bitcoin's network transactions are broadcasted to all nodes, where mining nodes collect these transactions, trying to create a new block using valid transactions.

CONCLUSION:

Most of today's cryptocurrencies would not fit as retail currency or for in-person exchanges. Their confirmation time, transaction fee, ease of use, and scalability does not meet the needs of consumers and is beaten by other means of payment, such as debit cards and cash. CBDCs could potentially be designed to work similarly to a combination of debit cards and cash, providing fast, cheap, and reliable transactions for everyday usage. Currently, there does not seem to be a viable digital currency that could replace debit cards or cash, but theoretically, it could soon be possible.

Cryptocurrencies could work to store value, but with the added risk that comes from their volatile nature. Cryptocurrencies can be used to store value in countries where the traditional bank system is hard to reach, not functioning, or entirely missing. It can be used for countries where their national currency suffers from high inflation. Storing cryptocurrencies can be deemed safe and efficient as long as the private key is stored securely, but again due to most cryptocurrencies' volatile nature, it is hard to predict what value they will end up storing.

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MULTIDISCIPLINARY STUDIES: PROSPECTS AND PROBLEMS IN MODERN ERA



ISBN: 978-920-5-20223-5



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Published in the year: July 2022

Published By:

Princeton Press

Overland Park, Kansas - 66212, USA

Website: www.princetonpress.us

Title: Multidisciplinary Studies: Prospects and Problems in Modern Era

ISBN: 978-920-5-20223-5

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158N P. P. P. A. S. 20228-5 Withwardhamak amones tropped and bisplant to Western And District AN EMPIRICAL STUDY ON IMPACT OF EMPLOYEE RETENDING WITH EMPIRICAL STOOL EMPIRICAL STOOL ON THE EMPLOYER BRANDING WITH REFERENCE TO CHENNAL CITY

Santosh Ram Pagare* Dr. Venkata Harshavardhan Reddy Dornadula**

*Professor, Department of Commerce, K.J Somaiya College of Arts, Commerce and Science, Ahmednagar, Maharashtra.

**Director, IT & ITES, Startups Mentoring Society. Reddy & Reddy Colony, Tirupati,

***Assistant Professor, Department of Commerce, Padmavani Arts and Science College for Women, Salem, Tamilnadu,

ABSTRACT

The technology market is overwhelmed making the bid for talented employees is higher and shows no sign of slowing down. Companies need to alter their strategies for attracting and keeping the finest employees Information technology has levelled the playing field for nations and improved millions of people's lives It's crucial for a nation to have strong IT capabilities if it wants to compete on the world stage and grow its GDF India's internationalization has been greatly aided by the IT sector. The Indian economy has benefited greatly from the IT sector's expansion, and this sector's USP is its ability to provide IT services at reasonable prices it played a key role in the nation's transition from an agrarian to a knowledge-based economy and had a huge impact on the social development of the nation. The study has the following objectives to study the retention strategies followed in the IT companies and to measure the impact of the strategies of retention of employees in the IT companies on the employer branding. This is an empirical study carried out in Chennal day Employer branding helps the companies to improve and efficient management of the human resource in the II sector. Recruitment and retention of employees are strongly influenced by the employer branding in this view, 300 employees have been selected for this study based simple random technique. The primary data have been collected through the Google forms. The author concluded that the employer brand is authentic only if a

Keywords: Employer Branding, Employee Retention, employer image, employer culture and IT companies

For many years, there have been enough of employment and available skills to meet the demands of For many years, there have been enough and the international segme, Indians are predicted to make employers. India is fast assuming its proper position on the international segme, Indians are predicted to make the segment to the se employers. India is fast assuming its proper possible proper p up 25% of the global workforce by 2022, and the second community depend on keeping personnel. Increasing retention miles labour force optimization and corporate productions is crucial for most businesses since employee turnover often and enhancing employer brands and reproducts.

results in disruption, costs, and recruiting charges. According to the majority of studies, 3 out of 5 workers and brightest people. would quit their employment for a better offer. The smartest and brightest people are always in demand, even would quit their employment for a better one. in the foughest people are always in demand, even in the foughest labour markets. A greater focus is placed on organizational effectiveness and efficiency in the in the toughest labour markets. A greater town, competitive economy, where human resources are crucial. Because human resources and competitive economy, where human resources are dynamic and demand.

- Multidisciplinary Studies: Prospects and Problems in Modern Era Onboarding and orientation: Every new recruit has to be prepared for success right away. In addition to Onboarding process should educate new hires about the corporate culture and how they the work, your may contribute to and succeed in it. Don't shortchange this important initial action. The orientation you may contribute in person or digitally, may set the tone for their entire employment with your give new fires, some new fires, may set the tone for their entire employment with your company. Need to remotely onboard new employees? Make sure you have Trisha Plovie's onboarding company. We company. Which she created while serving as Robert Half's senior vice president for the future of work.
- Mentorship programs: An excellent addition to your extended onboarding procedure, particularly in a Mentorship procedure, particularly in a remote work setting, is pairing a new hire with a mentor. Mentors may welcome new employees to the team, provide advice, and serve as a sounding board. And it benefits both parties since new team members get knowledge from seasoned workers while also providing their mentors with a different perspective.
- Employee compensation: It's essential for companies to pay their employees competitive compensation, which means employers need to evaluate and adjust salaries regularly. Even if your business can't increase pay right now, consider whether you could provide other forms of compensation, such as bonuses. Don't forget about improving health care benefits and retirement plans, which can help raise employees' job satisfaction, too.
- Perks: Offering benefits may help your company stand out to prospective new workers, re-engage your present workforce, and raise morale among staff members. Flexible schedules and remote work choices are the benefits that many professionals appreciate most, according to research for our Salary Guide. Additionally, a third of the professionals who responded to our study indicated that paid parental leave is a major benefit.
- 5. Communication: The transition to remote and hybrid employment has highlighted how crucial effective workplace communication is. Whether they are based on-site or remotely, direct reports should feel comfortable approaching you at any moment with suggestions, queries, or problems. Additionally, as a team leader, you must ensure that you are contributing in a good way to the team's overall goal of fostering timely, constructive, and effective communication. A team member's workload and level of job satisfaction, make sure to actively engage with them on a regular basis.
- Continuous feedback on performance: The yearly performance review is being replaced with more regular meetings with team members by many businesses. Discuss your workers' short- and long-term professional objectives during these one-on-one sessions, and assist them in imagining their futures with the business. While it's never a good idea to make promises you can't fulfil, go through prospective professional progression situations with a partner and develop a practical strategy for achieving your objectives.
- 7. Training and development: Identifying opportunities for professional progress, such as the need for learning new skills, as part of offering ongoing feedback on performance. Nowadays, with the way we work being continually altered by technology, it's more crucial than ever to upskill your staff. People who up skill acquire new skills as the demands of the workplace change. Make supporting employees' professional growth a top priority. Give them time to participate in online conferences, pay for their continuing education, or reimburse them for their tuition. Don't overlook succession planning either, since it may be a very successful strategy for enhancing leadership abilities and professional growth.
- 8. Recognition and rewards systems: Everyone wants to feel valued for their efforts. And an employer's appreciation may have a particularly significant influence on today's "anywhere workforce." Therefore, make sure to commend your direct reports for going above and above and highlight how their efforts benefit the benefit the company. Some businesses create formal incentive systems to encourage creative thinking and innovation. innovation, but even with a small staff or little budget, you may implement effective recognition programmes.
- Flexible work arrangements: Many companies understand that even though they have reopened their offices, some as a least part-time. Not having that option offices, some of their employees still prefer to work remotely, at least part-time. Not having that option

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might even spur employees to resign. A recent Robert Half survey found that half of professional time. might even spur employees to resign might even employees to reside the residence of the residence might even employees to reside the residence might even employees to residence might even

working from home would be working the workin Effective change management: Beyond and the Effective change management and the Effective change managemen has to deal with change, good and oad. And the has to deal with change and the has to deal with the has to during these times. If your organization is going and allow time for questions. in a group call or meeting, and allow time for questions.

NEED FOR THE STUDY

Employers' "efforts to establish an atmosphere that engages employees for the long-term and guarantees by Employers' "efforts to establish an authorphic to they retain attractive people in order to fulfil commercial goals" are referred to as "retaining talent," Therefore they retain attractive people in order to fulfil commercial goals" are referred to as "retaining talent," Therefore they retain attractive people in order to tall the state of the state it is accurate to say that information technology industry in India has helped to fulfil its duties as the country's economy's most reliable growth generator. Service, software exports, and BPO continue to be the sector's mainstays. The IT and ITES sector has seen rapid growth over the last several years. Different national and state government agencies have provided standard operating procedures (SOPS) for the sector in recognition of the significance of IT and its role in the growth of India. According to several assessments, Chennai alone contributes to around 15% of India's software exports. With a specific emphasis on information technology workers, the current research was done to analyze the numerous aspects that affect employee retention and to test a framework for improving retention of these experts. This study will enable the organization to take the necessary steps to improve employee performance, increase their satisfaction and intention to stay with the company for a longer period of time, and increase overall productivity of the organization by letting them know the current level of intention of employees to stay with the company.

SIGNIFICANCE OF THE STUDY

In a fast changing globalized Information technology economy, it is very difficult to find and recruit a right kind of people. But more critical and challenging job is retaining the people with the organization. This is especially in the case of Information technology companies. The growth and success of any organization depends on its employees. Attracting the talented employees is not a problem with information technology companies but to retain employees is the biggest challenge. Around the world, the concept of employee retention has become very important during last decade and various research surveys shows that employee turnover in Information Technology companies is very high compared to all other industries. Due to its significance in improving workplace performance and profitability much interest has been shown towards employee retention. Retention of employees is a very critical issue facing information technology companies as a result of shortage of skilled labour, economic growth and employee turnover. Numerous studies have been conducted using Information Technology employees as the subjects in Human Resource Management (HRM). Many research studies suggested to see the subjects in Human Resource Management of appuloyees. (HRM). Many research studies suggested various strategies for retaining employees. But the role of employee retention in work performance has not explored extensively. This study focuses on factors that affect retention of employees and impact of employee retention on their work performance

Information technology as a sector has grown considerably in past decade in India and made its presence felt them. This emerging sector has its own human to be a sector has worldwide. This emerging sector has grown considerably in past decade in India and made its presence them is high turnover rate of Information tachnot tachnot the presence of Information tachnot tac them is high turnover rate of Information technology employees. Turnover basically arises from the large one on the place for individual employee But basing the place for individual employees. leave one company for another. If the skills that they possesses are in a job is not the only reason why people beave one company for another. If the skills that they possess are in demand, they may be lure away by higher the skills that they possess are in demand, they may be lure away by higher and recognize the pay, better benefits or better job growth potential. That's why it is important to know and recognize the difference between employees who leave the job because they are unhappy and those who leave for other teasons. There are number of factors that contribute to employee turnover though there are number of reasons to control is difficulty. The control is difficulty. Gar leaving the organization, interventions to control is difficult. The scarcity

Multidisciplinary Studies: Prospects and Problems in Modern Era 158N: 970 the Information Technology companies Products and the client's requirements, the Information parket for the intermediate from the intermediate from the client's requirements, the Information lechnology companies are in search of new and newer strategies to retain their employees. Critical analysis of the force trends points to an impending shortage of highly-skilled employees. Critical analysis of technology companies. The impending shortage of highly-skilled employees. Critical analysis of models and ability to perform at high levels, meaning that organizations failing the possess the requisite perkforce trends pound and ability to perform at high levels, meaning that organizations failing to retain high performers providedge and authorized and authorized workforce that ultimately hinders their ability to remain be left with an analysis be left with an analy competitive. Instead of time. Therefore, it became important to address this problem, and examine of that affect employee retention and also analyze how it is increasing the competitive. organization for a true of the factors that affect employee retention and also analyze how it is increasing overall productivity of the factors. organization. OBJECTIVES

The study has the following objectives

- I. To study the retention strategies followed in the IT companies
- To measure the impact of the strategies of retention of employees in the IT companies on the

METHODOLOGY

This is an empirical study carried out in Chennai city. Employer branding helps the companies to improve and efficient management of the human resource in the IT sector. Recruitment and retention of employees are strongly influenced by the employer branding. In this view, 300 employees have been selected for this study based simple random technique. The primary data have been collected through the Google forms.

FINDINGS

Socio-Economic Characteristics

The study is indented to analyze the employer branding in the IT companies and the influence of the retention strategies on the employer branding. The opinion of the employees towards the employer brand values is measured. Their opinion of the employees may differ based on the nature like age, gender, educational status, experience and the income. In this context, the details of the respondents are summarized below.

Socio-Econo	omic characteristics	N	%
	Less than 30 years	109	36.3
Age group	30 to 45 years	95	31.7
	More than 45 years	96	32
Gender	Male	153	51
	Female	147	49
	Diploma	49	16.3
Educational Qualification	Under graduation	163	54.3
	Post graduation	88	29.3
TO THE SECOND SE	Below 5 years	110	36.7
xperience	6 to 10 years	92	30.7
The state of the s	More than 10 years	98	32.6
	Less than Rs. 1 Lakh	106	35.3
ncome Level	Rs. 1 Lakh to Rs. 2 Lakhs	101	33.7
	More than Rs. 2 Lakhs	93	31
	Senior Level	104	34.7
Desination	Junior Level	100	33.3
	Middle Level	96	32

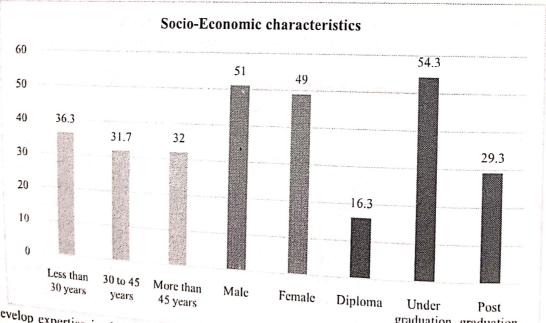
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ISBN: 978-920-5-20223-5	BFS	52	17.4
	Insurance	55	18,3
	Manufacturing	51	17
Domain Area	Health care Logistics & SCM	45	15
	Control of the Contro	42	14
	Others	300	100.0
	Total	analogical age is often	1 used as a

Age is a key demographic factor in research on retention. Chronological age is often used as a stand-in for Age is a key demographic factor in research (Physical, social, emotional and cognitive). The experiences of ge-related differences in human development (Physical, social, emotional and cognitive). The experiences of ge-related differences in human development (Physical, social, emotional and cognitive). ge-related differences in numan development of the see experiences have an impact on how they see the world he respondents differ according to their age, and these experiences have an impact on how they see the world he respondents differ according to their age, and the respondents more crucial to look at the reaction when age often signifies a person's degree of maturity, thus it becomes more crucial to look at the reaction when onsidering age. The Table 1 shows that most of the respondents (31.7%) belong to the age group between 30 onsidering age. ears and 45 years, 96 (32.0%) respondents are aged more than 45 years 109 (36.3%) areaged less than 30

Thile age and skill diversity in the workforce has always been to some extent present, gender diversity has reatly increased during the last several decades. The emergence of a vibrant, competitive global marketplace is resulted in a noticeable rise in the number of women in the labour force. Given the variety of the orkforce by gender, it becomes sense to infer that there may be variances in opinions and attitudes, which stifies looking at gender demographics. 153 (51%) respondents are male and 147 (49%) are female.

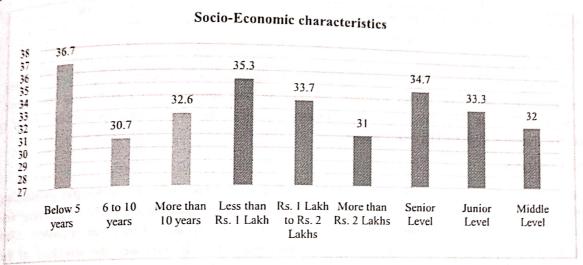
ne of the key factors that might influence someone's opinions is their level of education. It is essential to emprehend the respondents' educational backgrounds since each person's answer is likely to be impacted by eir educational standing. To identify the educational background and its impact on Employer Branding. hich will result in Employee Retention, information is collected from respondents in three scales, viz., UG, G and Professional. Majority (54.3%) of the respondents isunder graduates and 29.3% of the respondents are ost graduates.



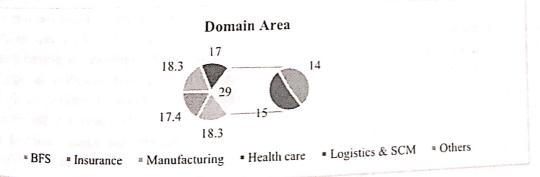
As they develop expertise in their industry, employees' assessments of their work experiences change. As a result, this variable was selected for use in this research as a demographic variable. The distribution of IT needs to level of industry to level of industry to level of industry to level of industry. workers in Chennai according to level of industry experience is shown in the table below. The length of time a knowled company serves as a demographic variable. The distribution showled company. Shared person spends working for a company serves as a proxy for their connection with that company. Shared the long demonstrates knowledge and experience get more developed the longer a person works for a company. Since their connection with that company. Since their connection with that company. This demonstrates the effectiveness of the organization's retention tactics. To establish the number of vears of experience with oken.

110 (36.7%) respondents experienced less than 5 years and 98(32.7%) respondents have more than 10 years of experience

years of their experiences, which represent the accumulation of knowledge, abilities, skills, and social light of their captures of job or line of work, workers' designations might be regarded to be capital relevant to a capital relevant. Employee perspectives may differ depending on the degree of work they have. For instance, top significant. Employed see a procedure from an entirely different angle than a lower level employee would. level personner considered in this study as an important demographic variable. Details of Designation level, Middle level and invited under three categories namely senior level, Middle level and invited to the designation Hence, designation se collected that 34.7% of the sample IT employees belong to the senior level, 33.3% belong to Middle level and 32% belong to junior level.



The IT industry has different business verticals also known as domain areas. Employees work in different domain areas. The major domain areas are Banking and Financial Services (BFS), Insurance, Manufacturing, Healthcare, Logistics and Supply Chain Management (SCM). The table above indicates that 18.3% of IT employees work in the BFS and Manufacturing area, 17.4% in Insurance, 17% in Health care, 15% in Logistics and SCM and 14 % in areas other than the ones mentioned. Mostly, the employees remain in their domain area as they build their competencies in their domains. The 'others' category in the above table includes domain areas such as retailing, education.



RETENTION STRATEGIES OF THE IT COMPANIES

Il workers often have advanced degrees and are intelligent and skilled. One of the finest service sectors for producing a let a fine advanced degrees and are intelligent and skilled. One of the finest service management producing a lot of jobs and foreign cash. They have a competent and efficient human resource management drision, which dission, which develops a competent employee retention plan. The study's main focus is on retention and toployer branding. toployer branding strategies for IT organizations.

	epo 4. 200 23 ° Salary Landyancement	No of Respondents Pertents	
HAN PAR	ment	29 Pertenday	May .
	Careet advancement Continuous feedback on performance Continuous feedback on performance	22	8 1
	A antimitation of the second	23	
	Employee completed and/or unsupported	10	
	Feeling overwork Flexible work attangements	25	
	Flexible work and	33	
	Mentorship programs Onboarding and orientation	10	No.
	Onboarding and	28 63	
	Perks and benefits	17	-
	Recognition Supportive work environment	30 5.9	
	Training and development	31	100
	Work-life balance	24	
	Work the tames are looked at in	light of respondents	

The following retention strategies are looked at in light of respondents' perspectives.

The following retention strategies are looked at in light of respondents' perspectives.

The following retention strategies are looked at in light of respondents' perspectives. The following retention strategies in things, Mentorship programs (11%) followed by Training and development (10.4%) and things, Mentorship programs (11%) percentage measured the respondents' percentage measured the respondents and respondents are respondent to the respondent percentage measured the res things. Mentorship programs (1176) and support the respondents' perception of a convironment (10%) are first three highest percentage measured the respondents' perception of a convironment (10%) are first three highest percentage measured the respondents' perception of a convironment (10%) are first three highest percentage measured the respondents' perception of a convironment (10%) are first three highest percentage measured the respondents' perception of a convironment (10%) are first three highest percentage measured the respondents' perception of a convironment (10%) are first three highest percentage measured the respondents' perception of a convironment (10%) are first three highest percentage measured the respondents' perception of a convironment (10%) are first three highest percentage measured the respondents' perception of a convironment (10%) are first three highest percentage measured the respondents' perception of a convironment (10%) are first three highest percentage measured three highest percentage measured three percentages are convironment (10%). retention techniques used by IT organizations.

CONCLUSIONS

Employee turnover is a major problem in the industry. The main causes of turnover are pay water benefits obtained from the company and alternative employment opportunities. The employers curious about their work environment and the working atmosphere. Employee turnover de organization as well as the other employees who were part of it. It increases the workload of employees. The firm may experience difficulties as a result of lower production and a scarchy workers. It also causes challenges in teamwork and might make it difficult to manage the tall dissatisfaction leads to less work progress, which in turn leads to a rise in building costs All organizations should promote an environment that encourages adequate possibilities for about gratitude for completed work, and a pleasant cooperative climate that makes an employee feel links firm in every way. Currently, it appears that not enough importance is being attributed to this come economic climate where business is tough there is pressure to cut costs and increase productivity. That the need to get the right people in the right job which is even more crucial. Employer branding that the only strategy, which helps in positioning the organization as the most attractive one in the ecosystem. An attractive employer is the one who creates the image that there are no choice is employees outside the organization and thus being the most desirable employer for potential employees a marketplace like India, where there are high attrition levels, employer branding is very improvides a provides a provides a provide and the second transfer and provides a prevalence to attract and retain top talent. The employer brand is authentic only if the process and enlightens it is the process of business and enlightens its identity, mission and values. This can only happen if the process and enlightens its identity, mission and values. employer brand initiates within the people of the organization and not just when recruiting Companies and another than the people of the organization and not just when recruiting the continue to the organization and not just when recruiting the organization and not just when recruiting the organization are continued to the organization and not just when recruiting the organization are continued to the organization and not just when recruiting the organization are continued to the organization and not just when recruiting the organization are continued to the organization and not just when recruiting the organization are continued to the organization and not just when recruiting the organization are continued to the organization and not just when recruiting the organization are continued to the organization are gain an emulous advantage by taking a long-term approach of investing in employer branding and their brands aligning to their future. their brands aligning to their future business needs.

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ABOUT THE EDITORS



Dr. T. S. Pathan

Dr. T. S. Pathan (M.Sc., Ph.D., F.A.Z.I., F.I.S.S.T., F.I.S.R.O.S.E.T.) Is working as a Associate Professor and Head in the Department of Zoology, Kalikadevi Arts, Commerce and Science College, Shirur Kasar Dist. Beed, Maharashtra and has teaching and research experience of more than 12 years. Dr. Pathan did his M.Sc. and Ph.D. in Zoology from Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (Maharashtra). He has 40 International and 6 national peer reviewed papers and 06 books to his credit. His present research interests are aquatic pollution and fish biology.



Dr. Atulkumar R. Chourpagar

Dr. Atulkumar R. Chourpagar (M.Sc., Ph.D., P.G.D.F.Sc., F.A.Z.I., M.Z.S.I.) is working as a Assistant Professor and Head in the Department of Zoology, Dadapatil Rajale Arts, Science and Commerce College, Adinathnagar, Tal. Pathardi, Dist. Ahmednagar Maharashtra and has teaching and research experience of more than 10 years. He did his M.Sc. (2006) and Ph.D. (2012) in Zoology from Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (Maharashtra). He has received the 'Congress of Zoology Medal' by Zoological Society of India on 2019 at Central Agriculture University, Agartala. He has 18 international and 04 national peer reviewed papers and 02 books to his credit. His present research interests are aquatic pollution and freshwater crab biology.



Dr. Santosh V. Rankhamb

Dr. Santosh V. Rankhamb (M.Sc., Ph.D., F.A.Z.I. F.I.A.R.A.) working as a Assistant Professor and Head in the Department of Zoology, Late Ramesh Warpudkar Arts, Commerce and Science College, Sonpeth, Dist. Parbhani, Maharashtra and has teaching and research experience of more than 12 years. He did his M.Sc. and Ph.D in Zoology from Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (Maharashtra). He has 14 international and 06 national peer reviewed papers and 03 books to his credit. His present research interests are polychates diversity.



Dr. Rumana S. Shaikh

Dr. Rumana S. Shaikh (M.Sc., Ph.D.) working as an Assistant Professor (C.H.B.) in the Department of Zoology, Pemraj Sarda College, Ahmednagar, Maharashtra. She did M.Sc. (2007) and Ph. D. (2012) in Zoology from Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (Maharashtra), INDIA. She has received young scientist award (Gold Medal) on 2010 by ZSI, at Guvahati University, Guvahati. She has published 10 research articles, papers and book chapters in national, International peer reviewed journals. Her main research work area on freshwater biology and meiobenthic fauna.



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Editors

Dr. T. S. Pathan

(M.Sc. Ph.D., F. A.Z.I., F. I. S. S. T., F.I.S.R.O.S.E.T,)
Associate Professor & Head, Department of Zoology,
Kalikadevi Arts, Science and Commerce College, Shirur Kasar,
Dist. Beed (M.S.), INDIA.

Dr. Atulkumar R. Chourpagar

(M.Sc. Ph.D., P.G.D.F.Sc., F. A.Z.I., M. Z.S.I.)

Assistantship Professor & Head, Department of Zoology,

Dadapatil Rajale Arts, Science and Commerce College, Adinathnagar,

Tal. Pathardi, Dist. Ahmednagar (M.S.), INDIA.

Dr. Santosh V. Rankhamb

(M.Sc. Ph.D., F. A.Z.I., F.I.A.R.A.)

Assistant Professor & Head, Department of Zoology, Late Ramesh Warpudkar ACS College, Sonpeth, Dist. Parbhani (M.S.), INDIA.

Dr. Rumana S. Shaikh

(M.Sc. Ph.D.)

Assistant Professor, Department of Zoology, Pemraj Sarda College, Ahmednagar (M.S.), INDIA

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OF FLUORIDE LEVELS IN GROUNDWATER OF HINGOLI, MAHARASHTRA

PUSHYAMITRA JOSHI, N. G. SHINDE AND P. P. JOSHI

Research Centre and Post Graduate Department of Zoology, K. J. Somaiya College of Arts, Commerce and Science, Kopargaon.

Post Graduate Department of Zoology, Adarsh Education Society's Arts, Commerce and Science College, Hingoli (MS).

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Abstract - Water is vital component for life. As water is life, water parameters and quality of water is one of the challenges in today's scenario. Fluoride is one of the naturally occurring constituents of water. Fluoride is naturally occurring mineral which found in water. It often known as double edged weapon, as permissible limit is good for human's body but more than that are harmful for humans. Many health-related problems can be occurred due to high intake of fluoride dental fluorosis, skeletal fluorosis, osteoporosis, etc. Increasing concentration of fluoride levels in groundwater is one of major problem across the globe.

According to national drinking water mission's data, 20 states and 230 districts among them with 66 million peoples are endemic areas for fluoride related problems. Fluoride is often known as

double aged weapon, as more than 1.5 mg/litre of fluoride is $h_{a_{\Gamma_{i}}} h_{i}$ for human body.

Groundwater is One of the important sources of water in many Groundwater is One of the many parts of country. Especially in rural area, sometimes it is the only parts of country. Especially in rural area, sometimes it is the only parts of country. Especially in a specially in a special spe available source of water for propagation and geogenic reasons is of fluoride in water due to anthropogenic and geogenic reasons is of fluoride in water due to all Due to this, the present-day study one of the international problems. Due to this, the present-day study one of the international problems on the international problems of Hingoli, Maharashtra. Analysis and conducted in District of Hingoli, Maharashtra. Analysis and assessment of groundwater samples from world health organi assessment of groundwater standard guidelines from world health organization as per the standard guidelines from world health organization as per the standard guideline association (APHA). The results (WHO) and American public samples possess excess amount of fluoride from illustrate that some of water of fluoride from selected villages.

Keywords - Water, Groundwater, Fluoride.

Introduction - Water is one of the natural resources. Water is vital component for life. It is well known fact that about 70% of the earth's surface is covered with water. Most of the water is in the oceans in unusable form while some of them are in frozen forms. Humans using Surface water and groundwater for their primary use. Groundwater in India facing major problem of fluoride in today's scenario. Odd even distribution of water, high depth digging for water, unsustainable levels of exploitation are common challenges to groundwater in India. According to report from the world bank, in India more than 85% of drinking water supplies are directly or indirectly dependent on groundwater. Sometimes groundwater is the only resource available for intake of water. This is common scenario found in rural part of India.

High amount of fluoride is one of the general trends found in groundwater sources. The increasing levels of fluoride in groundwater may be because of natural or anthropogenic processes. Natural causes are inherent geological conditions where as 180

anthropogenic causes includes wastewater from sewage, application of phosphate fertilizers etc. During weathering and circulation of phosphate fertilizers etc. During weathering and circulation of water in rocks and soils, leaching of fluoride can be takes place and mixing of fluoride in groundwater takes place. The fluoride levels of groundwater vary on geological settings as well as types of rocks.

High concentration of fluoride in groundwater is serious health problem in several parts of the world. According to the data of Maharashtra State Pollution control board (2011), 1183 villages over 28 districts out of 35 are affected by excess amount of fluoride. According to Jalstat database, 66 million people living in 230 districts of 20 states in India are at the risk of fluoride related problems and Maharashtra is one of them. Intake of water with high or low levels of fluoride, both are unfavorable to human health. However, excess amount of fluoride is bigger threat as it causes many health problems to the human health. Increasing levels of fluoride in groundwater is one of the serious causes, as groundwater is used for drinking purpose. Hence, it is essential to monitor and analyze quality of groundwater especially fluoride levels regularly.

Fluoride is an ion of element fluorine which belongs to halogen group. Fluoride is one of the natural minerals occurring in water. Fluoride is often known as double edged weapon, i.e. permissible limit of 1.5 mg/liter fluoride is good for health whereas more than 1.5 mg/liter harmful for health. Excessive intake of fluoride causes several problems to humans such as dental fluorosis, skeletal fluorosis, osteoporosis, increasing in thyroid levels etc.

Methodology The area of study selected for present research lies up to the 50 km part of Hingoli district in between latitudes 19.32982° N and 19.87529° N longitudes and 76.92209° E and 77.24329° E including 10 villages of Hingoli district. Water samples are collected in sterile plastic bottles to avoid unpredictable changes from different locations as well as sources such as wells, boars, hand pumps etc. Collection of water samples was done as per the standard guidelines by APHA (1995). The presence of fluoride in the samples was evaluated by SPANDS spectrophotometric method.

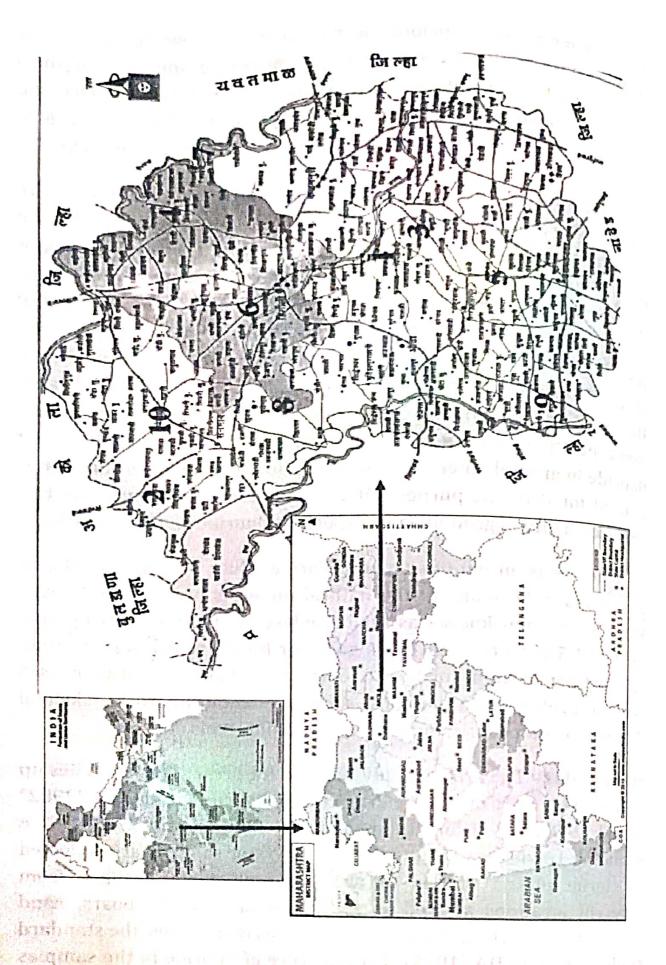


Table 1 Showing Name of Villages and its geographical position

1162			
Sr.	Name of Village	Latitude	Longitude
No.	Pimpaldari	19.57272°	
01	Sawarkheda	19.71035°	77.16820°
02	Pangra (Shinde)	19.54756°	77.18769°
03	Sirsam	19.84483°	77.22001° 77.24329°
05	Amba	19.45943°	77.17369°
06	Parola	19.78466°	77.147389
07	Borja	19.61651°	77.08538°
08	Jamrun Tanda	19.78607°	76.95142°
09	Hatta Tanda	19.32982°	76.94211°
10	Ajegaon	19.87529°	76.92209°
Results a	and Discussion	Property	

Table 2 Shows Amount of fluoride per Litre and type of groundwater

Sr.	Name of Village	Amount of Fluoride Per Litre	Type of Groundwater Source
01	Pimpaldari	1.71	Well
02	Sawarkheda	1.68	Well
03	Pangra (Shinde)	1.49	Hand Pump
04	Sirsam	1.72	Borewell
05	Amba	1.77	Hand Pump
06	Parola	1.90	Hand Pump
07	Borja	2.01	Borewell
08	Jamrun Tanda	1.92	Hand Pump
09	Hatta Tanda	1.50	Hand Pump
10	Ajegaon	1.64	Well

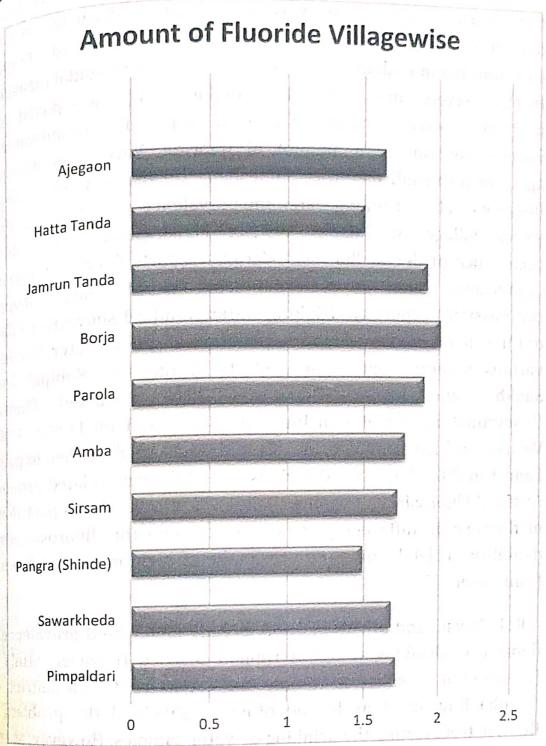
Table 1 shows names of villages and its geographical position through latitude and longitude. 10 Villages considered as study area for the amount of fluoride.

Table 2 Result shows that out of ten groundwater samples, eight Table 2 Result shows that our water samples have high amount of fluoride where as two water water samples have high amount of permissible water samples have low fluoride concentration or up to permissible limits two samples have slight Out of that eight water samples, two samples have slightly high Out of that eight water same sightly greater than 1.5, name of the same of the villages are Ajegaon, Sawarkheda, whereas other water samples have presence of high amount of fluoride, this may be because of local situation, anthropogenic/geological reasons. All the eight water samples and water from it is unfit for consumption as per the guidelines of World Health Organization. During the collection of water samples, common phenomenon observed about fluoride is its unawareness and this may be one of the reasons behind large number of people facing fluoride related problems. It is need of time to aware the local people about fluoride and its effects. During study, red marked handpumps and closed handpumps also observed due to excess amount of fluoride in some of the localities.

Table 3 shows fluoride levels and their effects on human

Fluoride Conc. (mg/l)	Effects of fluoride on human
<0.5	Dental carries.
0.5-1.5	Promotes dental health and prevents tooth decay and cavities.
1.5-4.0	Dental fluorosis, mottling and pitting of teeth.
4.0-10.0	Dental and skeletal fluorosis, pain in the back and all joints.

Table 3 shows effects of high amount of fluoride on human body. Table 3 study, we also observed that, yellowing of teeth and puring the study, we also observed that, yellowing of teeth and patches on teeth is one of the common factor in people who are patches on the teeth is resources. However, people are unaware consuming water from this resources. However, people are unaware consuming the contents in water and reason behind the yellowing of about the contents in water and reason behind the yellowing of teeths etc.



Brindha Kartiyeyan and Elango Lakshmanan in 2011 discussed Brindha Kartiyeyan and Elango measures in Fluoride Properties, causes, implications and mitigation measures in Fluoride Properties, Applications and Environmental Management. In this, they stated Applications and Environmental water may cause due to many increasing amount of fluoride in water may cause due to many reasons such as anthropogenic or geogenic reasons. Monica Yaday and Gurudatta Singh in 2021 already stated Fluoride Contamination Gurudatta Singh in 2021 and their Potential Remediation groundwater, Impacts and their Potential Remediation techniques. In that paper various techniques discussed for the defluoridation. Saxena and Sevak in 2016 stated consumption in Endemic villages of India and its remedial measures. In that, Saxena and Sevak stated Indian villages are posed with problem of excess amount of fluoride. Especially groundwater of villages contains high amount of fluoride. Various government agencies also confirmed this. Someshwar Golgire and others shows fluoride levels in drinking water and prevalence of dental fluorosis in vairag village of Solapur district Maharashtra. They shows occurrence of dental fluorosis. Various reports from international organization such as waterlife from world bank, European commission's report on drinking water standard showcases effects of fluoride on humans. Fluoride pollution of groundwater discusses various polluting agents and effects of fluoride. Mahipal Singh 2018 discussed Fluoride Rajeev Kumar in Sankhla and Contamination of water in India and its impact on Public Health. Various problems and fluoride affected states are described in paper. Lancet in 2022 highlighted seriousness of fluoride related problem. As titled Fluorosis: an ongoing challenge for India, shows prevalence of fluorosis in different parts of country and this fluorosis either dental or skeletal causes due to intake of high amount of fluoride from water.

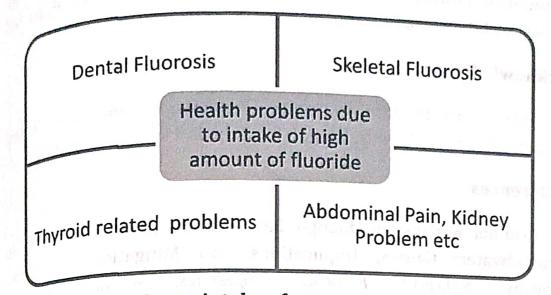
R.G. Pawale and others in 2008 already highlighted prevalence of fluoride in drinking water of Hingoli District. However, Study of Pawale et al is restricted to only one Taluka of Hingoli district, i.e. Aundha Nagnath. Pawale and others highlighted the problem of fluoride from testing the drinking of water samples. However, at that

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pr. T. S. Pathan, Dr. A. R. Chorpagar, Dr. S. V. Rankhamb, Dr. R. S. Shaikh

doesn't find any serious effects observed due to high they doesn't find any serious effects observed due to high serious serious of fluoride intake on humans.

piseases may cause due to excess amount of fluoride



Health Problems due to intake of excess amount of fluoride

Several Diseases such as Yellowing of teeth, Dental Fluorosis, Skeletal Fluorosis, Increase in thyroid levels, abdominal pain, abnormalities in RBC's etc. Dental Fluorosis is one of the widely observed problem due to intake of excess amount of fluoride. Risk causes due to intake of excess fluoride amount leads to several health hazards.

Unawareness of Fluoride related problems

Unawareness is one of the big challenges for fluoride related problems. During the study, we found that majority of people are unaware about fluoride and its consequences. In rural area where there is depth of underground water sources is high, possibility of prevalence of fluoride content also increases. Sometimes, in rural area underground water sources such as boar wells, wells, handpumps are the only available water sources for drinking or primary use. Health hazards due to excess amount of fluoride and awareness about it is need of time.

Conclusion

Out of Ten water samples, eight water samples sh_{ows} $e_{xce_{Ss}}$ amount of fluoride levels. Out of that eight water samples, t_{wo} sh_{ows} sh_{ows} slightly higher values of fluoride, where as others six sh_{ows} high amount of fluoride. During the study, red marked hand $pump_{Ss}$ high closed water sources also observed.

Acknowledgement

Authors are thankful to Senior Geologist, Groundwater Survey and Development Agency, Hingoli for help and kind cooperation.

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An International Edited Book

ISBN: 978-81-954002-7-0

ENVIRONMENT AND SOCIETY 2022



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Dr. Sadguru Prakash Dr. A. K. Verma Dr. R.C. Mishra Dr. Madhu Laxmi Sharma

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Dr. Sunita Arya
Dr. Seema Margret Singh

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Dr. Sadguru Prakash [M.Sc., Ph.D.]



Dr. Prakash has started his academic career in the Department of Zoology, MLK PG College, Balrampur (U.P.) in 2003. He has published more than 110 research papers, 25 book chapters and 05 books/edited books with around 1500 Google Scholar Citations (h-index: 18 and i10-index: 36). He is recipient of about 02 dozens of reputed awards of National and International fame including Dr.APJ Abdul Kalam Green Environment Promotion Award, Innovative Educationist Award, Innovative Zoologist Award, LBS Glocal Award for Biodiversity and so on. Besides, he is a Fellow of more than 10 academic/environmental/social societies and

attended more than 35 national and international conferences and organized about 10 conferences. Dr Prakash is a member of Research Advisory committee and Board of Studies of Siddharth University, Kapilvastu, Siddharthnagar and actively involved in research and serving as Editor and reviewer of a number of academic journals.

Dr. A.K. Verma [M.Sc. (Gold Medalist), Ph.D., D.Sc. (honoris causa)]



Dr. Verma, A. Professor of Zoology, Govt. PG College Saidabad-Prayagraj (U.P.) has published 105 research/review articles, 10 book chapters and 11 books/edited books. His current **Google Scholar Citations are more than 2000 (h-index: 25 and i10-index: 70)**. He supervised 01 Ph.D. student and successfully organized 15 national and 16 international conferences/seminars/webinars and actively participated in more than 100 conferences. Dr Verma has been former Convener of Board of Studies and Member of Academic Council of PRSU, Prayagraj and subject expert of Zoology RDC of Dr RML Avadh University Ayodhya

and subject expert of Environmental Science Board of Studies of Govt. KRG PG (Autonomous) College, Gwalior (M.P.), Maa Shakumbhari University, Saharanpur (U.P.). He is Editor-in-Chief of International Journal of Biological Innovations (IJBI) and editorial board member of about 15 research Journals. He has received about 71 most prestigious awards of Regional, National and International repute including Saraswati Samman 2017 (The highest award of Education Department, Govt. of Uttar Pradesh). Besides, he has received Fellowships of 17 well reputed academic societies of global fame. Dr. Verma is popularly known as "Man of Awards and Honours". He is currently working on biodiversity/nature conservation and ecological balance and is actively involved in conservation, sustainable development and management of Indian Sarus Crane (state bird of Uttar Pradesh) in and around district Kaushambi (U.P.). Owing to his concern towards environment and sustainable development, he has started a new healthy tradition of gifting plants in birthday and marriage anniversary celebrations. Added to this, the tradition is also being continued with guests and speakers during conferences in order to maintain a clean and green natural environment.

Prof. R.C. Mishra [M.Sc., Ph.D.]



Dr. Mishra is currently Vice Chancellor of Mahakaushal University, Jabalpur (M.P.). He has completed his masters from GBP UAT, Pantnagar (U.K.) and Ph.D. from University Allahabad, Allahabad. He has published around 100 research/review articles/book chapters and several books/edited books. He is a Fellow of Asian Biological Research Foundation (ABRF) and recipient of about two dozen awards and honours. He has successfully completed several projects funded by DST and organized many workshops/ seminars/ webinars etc.

Prof. Madhu Laxmi Sharma [M.Sc., Ph.D., D. Litt. (hon.)]



Dr. Sharma, Professor of Botany, Govt. KRG PG (autonomous) College, Gwalior (M.P.) has published about 25 research/review articles, 5 book chapters and 5 books/edited books. She has more than 42 years of teaching experience. She has received about 31 most prestigious awards and 12 fellowships of different academic/research related societies. She was master trainer of Semester system in higher education, Madhya Pradesh, organized about one dozen workshops/seminars/webinars and attended more than 200 National/International conferences.

Editors

Dr. Sadguru Prakash

Department of Zoology MLK PG College, Balrampur, (U.P.), India

Dr. A. K. Verma

Department of Zoology Govt. PG College, Saidabad, Prayagraj (U.P.), India

Prof. R. C. Mishra

Vice-Chancellor Mahakaushal University, Jabalpur (M.P.), India

Prof. Madhu Laxmi Sharma

Department of Botany Govt. KRG PG (Autonomous) College, Glawlior, (M.P.), India

Associate Editors

Prof. Sunita Arya

Department of Zoology DG PG College, Kanpur (U.P.), India

Dr. Seema Margret Singh

Department of Botany Govt. PG (Autonomous) College, Datia (M.P.), India

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Nature Light Publications, Pune



Glocal Environment and Social Association (GESA), New Delhi, India

ISBN- 978-81-954002-7-0

An International Edited Book

Editors

Dr. Sadguru Prakash Dr. A. K. Verma Prof. R. C. Mishra Prof. Madhu Laxmi Sharma

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Published in February 2023

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Published by:

Nature Light Publications, Pune

Glocal Environment and Social Association (GESA), New Delhi, India

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ISBN: 978-81-954002- 7-0 | Year: 2023 | pp: 102 - 109 |

Water Pollution: Consequences and Solutions with special reference to Anthropogenic approach

N.G. Shinde¹, P.P. Joshi², Pushyamitra Joshi^{1*}

Post Graduate Department of Zoology

Post Graduate Department of Zoology

K.J. Somaiya College of Arts, Commerce and Science, Kopargaon Dist. Ahmednagar (M.S.)

²Adarsh Education Society's Arts, Commerce and Science College, Hingoli (M.S.).

*Corresponding author: lokninad@gmail.com

Abstract

Water pollution is one of the biggest challenges across the globe including the water pollution is one of the organization the problem by to rapid increase in industrialization and urbanization, the problem becomes more and more severe in recent times. The life of human cannot be sustained without clean water. United Nations 17 sustainable goals also include access to clean water. Life of human cannot be sustained with polluted or contaminated water. Present article tries to highlight consequences and solutions with respect to anthropogenic reasons.

Keywords: Water, Groundwater, Fluoride.

Introduction

Water is viral component for the life. Water sources such as rivers, lakes, aquifers. oceans and groundwater sources such as borewells, wells, handpumps can get contaminated by a variety of anthropogenic activities. The anthropogenic activities are not only responsible for pollution but also for biodiversity threats (Prakash and Verma, 2022). Any modification to the physical, chemical, or biological characteristics of water which leads to negative effect on any living thing is referred to as water

pollution. All types of wastes including electronic wastes also contribute in pollution and poor health of environment (Verma and Prakash, 2020). Drinking water which also referred as potable water is the form of water which is considered as safe for the purpose of ingestion by humans as well as by animals also. This water is typically utilised for drinking, cooking, cleaning, irrigation of crops, etc. (APEC, 2015). Nowadays, even drinking or potable water is also negatively impacted by

chemicals. such as hacteria and other pollutants. means Aims and Objectives

To discuss effects of polluted water 10 mans as well as environment

and ecosystem. highlight wastewater

technologies To highlight consequences due to anthropogenic activities.

Memory work is descriptive in This study is based on mainly secondary source of data. The required information collected from different government reports, research articles, journals, books, newspapers as well as internet sources. This data was then analysed and reviewed for interpretations and conclusions.

Sources of Water pollution

The widely occuring and mostly seen pollutants are as follows:

- Pesticides and insecticides
- Industrial effluents
- Domestic waste
- Fertilizers and Detergents Generally, water pollution caused by two types of sources, that are:
- Direct Sources: This type of sources contribute to directly contamination of water. The direct mode means, pollutants i.e. the substances which causing pollution directly mixed with water bodies. Factories, refineries. waste management facilities are some of the common examples of direct sources which causes pollution as the

- wastewater directty pass into nearest water bodies and pollution takes place (Dwivedi, 2017).
- Indirect sources: In this type of sources, pollutants mixed in water water indirectly, for example; the excessive use of chemical fertilizers rise the accumulation of give chemicals in soil, these soil later on mixed up with water bodies or groundwater and the pollution takes place. The reasons behind acid rain also included in the indirect sources.

Effects of Pollution of Water

Health Problems:

Polluted water has numerous detrimental consequences on human health, including diseases, when consumed or drunk. Typhoid. cholera, hepatitis, are some of the commonly occuring health problems caused due to polluted water.

- 2. Destruction of ecosystem: Ecosystem are vast, sensitive as well active for interactions as well as for better enviornment. Α minute alretations to surrounding negatively impacted ecosystems. If water pollution is not controlled, an entire ecological balance will be disturbed, which is harmful for biodiversity, sustainable development and survival of mankinds (Ashok, 2017; Verma, 2018, 2019).
- 3. Eutrophication: Chemical constituents in water bodiesleads to development of algae. On top of the pond or lake, these algae accumulate in a layer. The formed algae is consumed by bacteria which give rise to lowering of oxygen levels in

- water bodies, and hence all the aquatic life present in respective water body negativly impacted.
- 4. Impact on food chain: Interuption in the food chains takes place when toxins, chemicals and pollutantswhich are present in water sources consumed by aquatic organisms such as fishes, shellfishes and later on these organisms consumed by humans. Fluoride, nitrite are some of the chemicals which may affect health of humans.

Water: General Information

The chemical formula of water is H₂O. One molecule of water made up of two hydrogen atoms covalently bonded withone oxygen atom. The earth from a space looks majorly in blue colour. This blue colour is basically water which coveres the earth. In fact water constitutes majority part of earth though its not available in usable forms. We need water almost for every activity starting from household to industrial. Human body also composed of 65% amount of water. There's no imagination of life without water on earth.

The unevenly distribution of water on earth's surface is one of issue for availability of water. Water is known as universal solvent and dissolves almost every polar solute. Water is tasteless as well as colourless liquid. Comparing to the other liquids or solutions, water shows unique properties such as thermal condutivity, dipole moment, surface tention, higher specific heat etc.

Diseases associated with

For a person to survive, they need water to stay how The body requires water to stay hydrater to support several L The body required as well as to support $\frac{1}{\text{several}} \frac{1}{\text{bodily}}$ as well as to support $\frac{1}{\text{several}} \frac{1}{\text{bodily}}$ processes like digestion, metabolism, and podily processes like digestion, metabolism, and waste removal. Yet, poor quality of the waste reme....
water in several parts across the globe is one of the largest issues facing humanity today. Water contamination is a major cause of numerous ailments. Sometimes it can also leads to gastrointestinal illnesses (Anderson and Stentrom, 1987). Anybody can be harmed, but children, the elderly with immune system and are particularly vulnerable to infections from various because they compromised immune systems (Patil, 2009; Rozina Khatun, 2017).

1. Cholera

Chlorea is known as one of the most rapidly spreading diseasecaused by the bactirium Vibrio cholerae the toxic strain which may enter in the body of human from water or food. The bacteria can survive even after three weeks also. Seafood is major surviving place for the Vibrio cholerae. Normally it takes the duration of two to four days for confirmation of the symptoms of this disease. The disease includes watery diarrhoea. nauseam cramps vomiting. More than 50 countries across the globe reports cholera every year to world health organization. Since it is water borne disease, to overcome cholora, properly maintained hygiene, basic sanitation and clean drinking water are the basic requirements. Instant

medications should be provided throughout disease by the means of oral or intravenous for maintaining hydration.

2. Amocbiasis

Entamoeba histolytica is the parasite that eauses amoebiasis. The disease is fetched on byingesting faeces from an infected person, typically through sewage or untreated drinking water. Amoebiasis eauses diarrhoea, fever, and abdominal pain in addition to causing weight loss. The parasite takes two to four weeks to fully develop. In severe situations, it might weaken the abdomen and result in bowel perforations.

3. Typhoid Fever

Salmonella typhiis the microbiological agent that causes typhoid fever. The patient additionally has chills, cramps, and diarrhoea in addition to abdominal pain. Contaminated water is another factor in typhoid. It is a centre for illnesses. Those who have typhoid typically experience severe primary effects, and the primary infection may persist for up to three weeks or more. Flies contribute to increased contamination. Any sort of water that has been tainted with Salmonella typhi can cause this illness.

4. Gastroenteritis or "Gastric Flu"

The contamination of water by calcivirus results to the gastric flu. The duration to takes infection and menifests symptoms is 36 hours. The symptoms includes fever, diarrhoea, vomitingand nausea. When people share utensils while living together, the sickness spreads quickly.

As the virus may survive freezing, the ice blocks that were given for the various puproses might be contaminated. The dehydration suffered should quickly replaced in case of infants. The gastric flu not only caused by single reason of virus, there are many other causal agents also behind this that's why immunization does not aidswith respect to this disease. Drinking treated water as well as maintaining good personal hygiene is the only prevention.

5. Giardiasis

This infection caused by the parasite Giardia lamblia. Before exhibiting symptoms of gastrointestinal pain and increased gas, the parasite stays for 1 to 2 weeks. The infected individuals hardly exhibit any symptoms, but they could get diarrhoea and lose weight. When the excrement of a sick person or animal comes into touch with drinking water, improper sanitation causes contamination. An infected person's faeces sample is used to diagnose the condition. The condition typically affects young people more. People in good health typically recover more quickly than kids. There are readily available medications that are effective against the parasite.Clean drinking water maintaining effective hygiene prevents the disease.

6. Hepatitis A

The hepatitis A virus pathogen is causal agent behind this disease. This disease is spread by tainted food and drink. The majority of patients get acute symptoms in lessduration. however infected patients may also experience fever,

tiredness, diarrhoea, and nausea. The main transporters are water and milk products. A preventative in and of itself is practising excellent hygiene and sanitation.

7. SARS

Coronavirus, a microbiological agent, is the cause of the severe acute respiratory syndrome, which appears in untreated patient typically A SARS water. experiences stomach issues, fever, and sore throat. It is among the most typical infections that are spread by tainted water.

8. Infection with E. coli

This type of infection caused by specific strains of the bacteria Escherichia coli, sometimes known as E. coli. The infected suffers symptoms including fever, vomiting,nausea and diarrhoea also.Generally one week duration takes up to shows symptoms. The loss of fluids during disease may cause severe infection to the people having weak immune system. Especiallyaged people follow and childrens should the preventive measures as the severity of this disease in them is high. Packed dairy products and juice may carriersof these causal agents.

Waste Water Treatment Processes

The process by which wastewater(the water which isnot suitable for use) converted into bilge water which can discharged back into environment known as watewater treatment processes. The formation of Waste water done by various activities such as bathing, washing and rainwater runoff etc. Waste

comprisesof water also bacteria, chemicals and other toxins. The treatment aims to reducing the The ucaminants upto the permissible the contaminants upto the permissible levels and to make safe water which can be environment. The wastewater treatment the into two types a intoprocesses divided into two types, first is known as chemical or physical treatment and second one known as biological wastewater treatment plant Physical waste treatment plants generally uses chemical reactions as well as activities to treat wastewater.As name itslf biological wastewater treatment plant uses biological matter and various bacteria for the breaking of waste matter. Nowadays, biological treatment systems are referred asthe ideal method for treating wastewater from households and Physical wastewater business sites. treatment plants are widely used to treat the wastewater from commercial entities factories, such as industries manufacturing firms. The reason behind this is majority amount of the wastewater from these entities contains different toxins as well as variety of chemicals which causes negative impact on the environment (Joshi and Joshi, 2020). The general stages involves in Waste

water treatment are as follows:

1. Wastewater Collection

This is the first step in waste water treatment process. The collection points are put in place by respective authority such as muncipal administration to safeguard all the wastewater collected and directed to the central point. This

water is then directed towards the site of plant using under meannent plant men andeground undeground or by exhauster tracks. drainage proper conditions should be transported while transported However, while transportation

The nines or maintaine. The pipes or tracks should wastewater, proof and in manual wasteward and in manual case, the leak proof and exhausting be lear roffering exhausting services people wear protective clothing. Now a should wear method is not should manual method is nearby closed

2. Odor Control

At the treatment plant, odor control is Al more important. Wastewater contains a lot of dirty substances that cause a foul smell over time. To ensure that the surrounding areas are free of the foul smell, odor treatment processes are initiated at the treatment plant. All odor sources are contained and treated using chemicals to neutralize the foul smell producing elements. It is the first wastewater treatment plant process and it's very important.

3. Screening

This is the next step in wastewater treatment process. Screening involves the removal of large objects for example nappies, cotton buds, plastics, diapers, rags, sanitary items, nappies, face wipes, broken bottles or bottle tops that in one way or another may damage equipment. Failure to observe this step, machine results in constant equipment problems. Specially designed equipment is used to get rid of grit that is usually washed down into the sewer lines by rainwater. The solid wastes removed

from the wastewater are then transported and disposed off in landfills.

4. Primary Treatment

This process involves the separation of macrobiotic solid matter from the wastewater. Primary treatment involves pouring of wastewater into big tanks for the solid matter to settle at the surface of the tanks. The solid waste, the sludge that settles at the surface of tanks is removed by large scrappers and is pushed to the centre of cylindrical tanks and later on, driven out of tanks for further treatment. The remaining water is then undergo for secondary treatment.

5. Secondary Treatment

This is also referred as the activated sludge process. The secondary treatment stage involves addition of seed sludge to the wastewater to ensure the further breakdown. Air is pumped firstly into tank which mixes big aeration wastewater with seed sludge. Seed sludge is basically little amount of sludge which fuels the growth of bacteria which uses oxygen and growth of other mirobes consumes remaining amount of organic This process leads to the matter. production of large particles which settle down at the bottom of huge tanks. The wastewater then passes through the large tanks for the duration of 3-6 hours.

6. Bio-solids handling

The solid matter which settled out after the primary as well as secondary treatement steps are then moved towards digesters. These digesters are heated at the room temperature. The solid wastes

this process, the production of methane takes place and formation of nutrient rich bio solids evolved which are recyled and dewatered into the local firms. The methane formed used as source of energy at treatment plant. The methane can be used in boilers.

7. Tertiary treatment

This stage shows resemblance to the normal treatment plants of drinking water which cleans and purifies raw water for the purpose of drinking. The tertiary treatment can remove upto the 99 % of impurities from the wastewater. This produces effluent water which is closer to the quality of drinking water. Though comes up of disadvantage, this process is quite expensive as it needs special equipments and well trained as well as skilled operators etc.

8. Disinfection

Though after primary and secondary treatment stages there is possibility of causal organisms of diseases remaining in treated wastewater. To eliminate them disinfection is mandatory process. This is done with mixture of chlorine with sodium hypochlorite for the minimum duration of 20-25 minutes. The process of disinfection is an indivisible part of treatment process because it give rise to good health conditions of animals and the local people who uses water for the various purposes. The treated wastewater is then released into the environment.

9. Sludge Treatment

After the treatment processes, the sludge produced thicken. primary the requires concentration and thickening lo processing. $N_{0\eta_{1}}^{\delta t_{0}}$ enable duration of this process is $24 \frac{|v_0|}{h_0 u_{r_3}}$. The remaining water is then collected and aeration tankers and sent back to big aeration tanks for the further treatment processes. The sludge is then treated and discharged back into the environment. Wastewater tretament processes comes up with number of this $e_{n_{Sure_{S}}}$ environment clean, no kept making pollution, use of natural preventing resources, waterborne diseases as well as adequate amount of

Conclusion

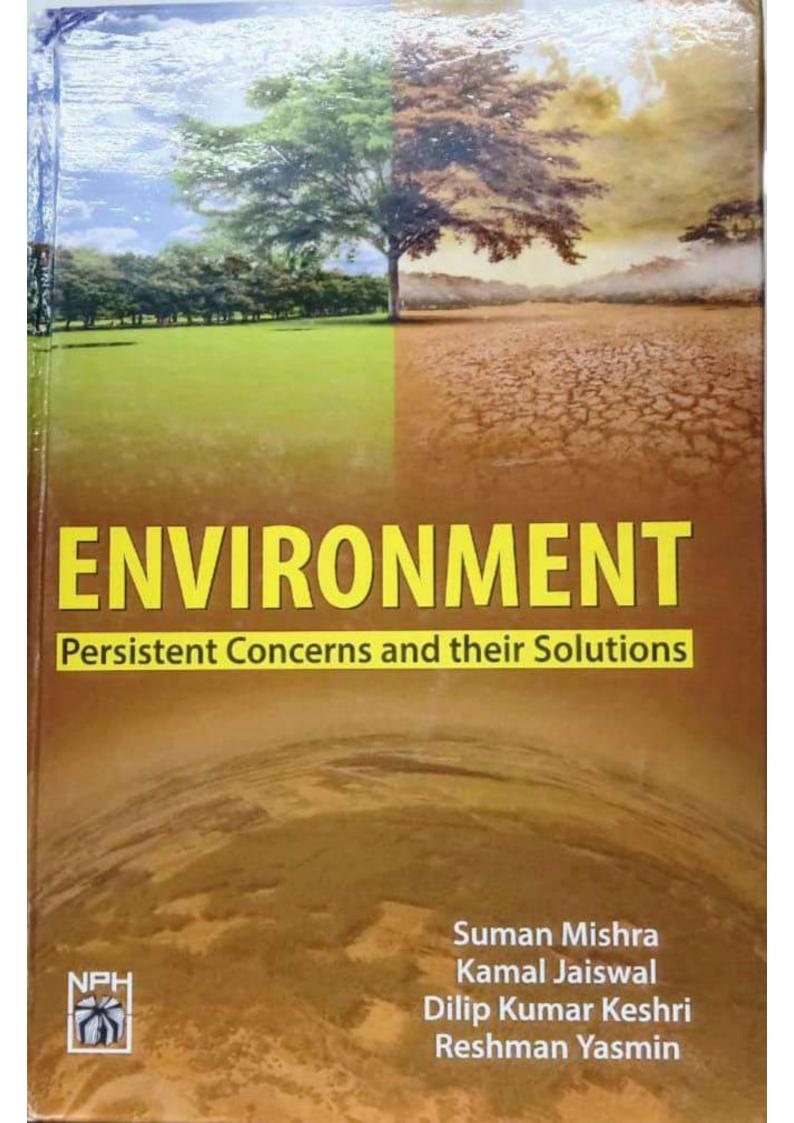
From the above discussion we can conclude that, due to increase in the population, industrialization as well as domestic use, quality of the drinking water is decreased and there is a need for the proper treatment of water alongwith some prevention method to reduce water pollution. There isnecessity tomanage the safe supply of drinking water as stated in article. The awareness regarding water pollution, pollutants as well as impact on human health is important factor. At the same time, government can include environment concerns such as impact of water pollution etc.since from early education curriculum.Onlyafter and theproper framework implementation of strategies, we can say 'Jal hi Jeevan'

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ENVIRONMENT

Persistent Concerns and their Solutions

Suman Mishra • Kamal Jaiswal Dilip Kumar Keshri • Reshman Yasmin



Narendra Publishing House Publishers & Distributors C-21, Varun Apartment, Sector -9, Rohini

NEW DELHI - 110085 Ph. 011-45025794 +919717874875

Email info@rehinda.com, rphinda@gmail.com www.nehinda.com



Environment: Persistent Concerns and their Solutions, Pages: 87–93

Edited by: Dr. Suman Mishra, Prof. Kamal Jaiswal, Dr. Dilip Kumar Keshri and Dr. Reshman Yasmin Copyright © 2023, Narendra Publishing House, Delhi, India

CHAPTER 7

FLUORIDE CONTAMINATION IN CERTAIN WATER SOURCES OF HINGOLI, MAHARASHTRA

Pushyamitra Joshi¹, N.G. Shinde¹ and P.P. Joshi²*

Research Centre and Post Graduate Department of Zoology, K. J. Somaiya College of Arts, Commerce and Science, Kopargaon.

²Post Graduate Department of Zoology, Adarsh Education Society's Arts, Commerce and Science College, Hingoli (MS).

*E-mail: lokninad@gmail.com, drprashantjo@gmail.com

ABSTRACT

Water is one of the abundantly available sources in nature. It is essential constituent for all animals and plants. Fluoride is one of the natural occurring constituents of water. Fluoride has both good as well as bad impact on human beings. Initiation of topical and systemic use of fluorides is one of the major problems in dentistry. Fluorides fetched significant reduction in the dental caries prevalence, especially in advanced economic countries. Though in the 1980s, it was found that fluoride prevents caries mainly through its topical action. Drinking water is a common medium for intake of fluoride. Increasing concentration of fluoride in drinking water sources is an international issue. According to World Health Organization (WHO), more than 1.5 mg/liter fluoride in water is injurious to human health.

Present study conducted in Hingoli, Maharashtra, where water samples are taken from different sources and analyzed for fluoride contents, Further effects due to high amount of fluoride on humans also observed. During study, samples collected from groundwater sources after the depth 200 ft possesses higher amount of fluoride as compared to other sources. People living and consuming water from these groundwater sources shows health problems such as yellowing of teeth, dental fluorosis etc. Present study shows amount of fluoride in selected water sources, control measures and suggestions for prevention of problems due to excess amount of fluoride.

Keywords: Water, Samples, Fluoride, WHO, Dental.

INTRODUCTION

Fluoride is one of the serious causes of threat in water in 21st century. In India Fluoride is one of the serious 20 states and 230 districts are categorized into endemic areas of fluoride, while 20 states and 230 districts are at the risk of effects of fluoride contamination Manual Property of the serious contamination of the se 20 states and 230 districts are at the risk of effects of fluoride contamination. Most of sixty million people are at the risk of effects of fluoride contamination. Most of sixty million people are at the risk of effects of fluoride contamination. Most of sixty million people are at the risk of effects of fluoride contamination. Most of sixty million people are at the risk of effects of fluoride contamination. Most of sixty million people are at the risk of effects of fluoride contamination. sixty million people are the sixty million people are the sixty million people in rural India live in absolute poverty and often lack access to clean the people in rural lack sanitation. In study area, nearly half of the population of the people in rural lacks sanitation. the people in rural field and unaware of the waterborne diseases affect. drinking water and once population is illiterate about fluoride and unaware of the waterborne diseases affecting their health. The poor rural infrastructure having no organized provision of water quality and controls due to that risk of many waters related health problems such as fluorosis increasing day by day.

Fluoride has both beneficial and hurtful impact on human beings. Initiation of topical and systemic fluorides for the inhibition and prevention of dental caries is a significant problem in dentistry. Though in the 1980s, it was found that fluorie prevents caries mainly through its topical action. Drinking water is a common medium for intake of fluoride. Increasing concentration of fluoride in drinking water sources is an international issue. According to World Health Organization (WHO), more than 1.5 mg/liter fluoride in water is injurious to human health. Concentration of fluoride levels in most of the Asian countries including India is more than the World Health Organization (WHO) guidelines values. According to World Health Organization more than 1.5 mg of fluoride per litre water is harmful for human consumption. Ground water is a major source of water in rural area for drinking as well as domestic purpose. Groundwater is one of the important sources of water in rural and tribal areas than cities, because most times it is the only source available for water. Throughout the time, many waters related health problems such as fluorosis increasing day by day.

METHODOLOGY

For current study, ten water samples were collected randomly up to 40 km distance villages nearby Hingoli, Maharashtra. Ten water samples were collected from various sources such as borewells, wells, water tanks etc. Collection of water samples was done as per the standard guidelines by APHA (1995). The presence of fluoride in the samples was evaluated by SPANDS spectrophotometric method.

RESULTS AND DISCUSSION

Result shows that out of ten water samples, three water samples found excess level of fluoride content while content. level of fluoride content while one shows slight high amount of fluoride content.

As Per WHO guidelines 1.5 mg/lit fluoride is good and beneficial for human body. As per WHO gains during the samples collection, we found that most of people are By oral discussion and its effects. During sample collection we also noticed unaware about fluoride and its effects. During sample collection we also noticed unaware about still using water from sources where there is excess amount of that people are still using water from sources where there is excess amount of that people as the last shows amount of fluoride from different water sources and their effects on bourse fluoride. Table 2 shows fluoride levels and their effects on humans.

Table 1: Shows amount of fluoride from different water sources in Hingoli.

Table	(Samples (Depth in ft)	
Sr. No.	Sources of Samples (Depth in ft)	Amount of Fluoride in mg/lit
	Water sample from well (100 ft)	0.71
01 02	Water sample from well (150 ft)	0.82
03	Water sample from bore well (150 ft)	1.03
04	Water sample from bore well (200 ft)	1.57
05	Water sample from bore well (250 ft)	1.80
06	Water sample from bore well (300 ft)	1.93
07	Water sample from bore well (350 ft)	2.07
08	Sample from water tank (T1)	0.51
09	Sample from water tank (T2)	0.67
10	Sample from water tank (T3)	0.90

Table 2: Shows fluoride levels and their impact on human beings

Fluoride Conc. (mg/l)	Effects of fluoride on human
0	Limited growth and fertility.
<0.5	Dental carries.
0.5-1.5	Encourages dental health and avoids tooth decay and cavities.
1.5-4.0	Dental fluorosis, mottling and pitting of teeth.
4.0-10.0	Dental and skeletal fluorosis, pain in the back and all joints.

Table 1 shows fluoride amount from various water samples and sources while Table 2 shows impacts of fluoride and its effects on human. Current study indicates that the water samples collected from wells (100 and 150 ft), bore wells (150,200,250,300,350) and Water tanks respectively. Water sample from 200 ft showed slightly higher amount of fluoride 1.57 mg/l as well as samples from 250 ft 300 c ft, 300 ft and 350 ft shows 1.80 mg/l, 1.93 mg/l and 2.07 mg/l amount of fluoride respectively. Water samples from such depths after consuming by humans may create have a state potability of create harmful impact. However, Pawale et al. (2008) studies the potability of drinking and drin drinking water in villages of Aundha and observed that absence of any majorsigns of fluorosis. of fluorosis amid children and adults in respective area which is a signal that this

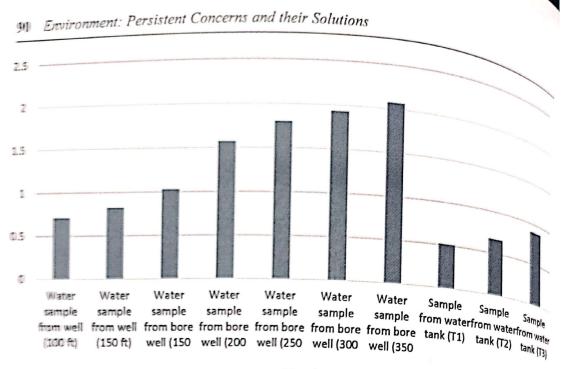


Fig. 1

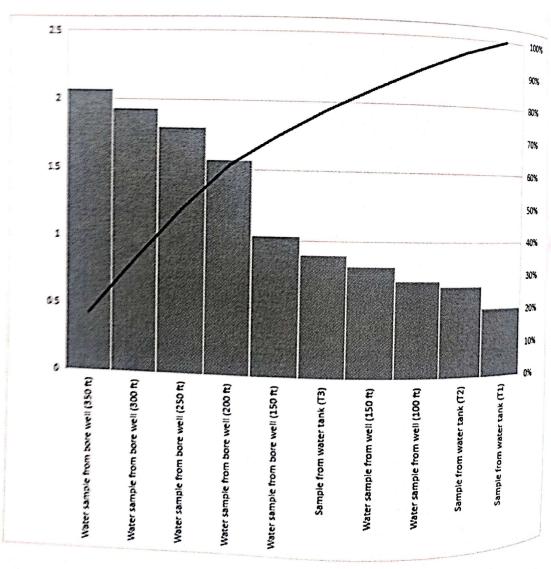


Fig. 2

is not a serious threat of water contamination. Overall samples shows that, is not a serious after the depth 200 ft possesses higher amount of fluoride groundwater sources after the mount 1.5 mg/l. Water samples groundwater some amount 1.5 mg/l. Water samples of groundwater below compared to permissible amount of fluorida. compared to P or groundwater below average and optimum amount of fluoride less than 1.5 mg/l. Same 200 ft shows average with samples collected from tool-200 It shows with samples collected from tanks which shows optimum value situation continues with samples collected from tanks which shows optimum value of fluoride. In comparison to study surrounded Hingoli, our results displays that the of fluorida and samples below depth of 200 ft possesses average fluoride levels as well as all samp.

those having excess amount of fluoride needs to be monitored and requires remediation.





Fig. 3

importance of Study

- 1. As water is vital, fluoride which is one of the naturally occurred constituent in water, it should be in proper amount.
- 2. Sixty million Indians living in endemic areas for fluoride are at the risk of fluoride related diseases.
- 3. Increasing amount of fluoride in one of the serious reasons for health issues.

Observations

- 1. Groundwater resources below 200 ft have excess amount of fluoride in
- 2. Majority of people found unaware about fluoride.
- 3. During the study, yellowing of teeth seen in some people.

Suggestions

1. Immediately stop using water for drinking purpose from excess amount of fluoride sources.

- Public awareness should be done about fluoride.
- Proper Survey of water sources should be done after certain time.

Control Measures

Reverse osmosis system

- It is one of the popularly used source for removal of fluoride from water
- It can remove up to 95% of fluoride from water.
- Beside fluoride, a RO system can also remove pesticides, chlorine, asbestos,

Activated alumina

- i) In this water purification method, water passes through a bed of aluminium
- ii) Alumina absorbs the contaminants, leaving behind the water clean.
- iii) In addition to fluoride, it also filters heavy metals and toxins.

Tulsi or Holy Basil -

- Addition of few leaves of this Ocimum sanctum (Tulsi) in water has been shown to reduce the amount of fluoride. Research conducted by Natural society found that Tulsi was found to reduced fluoride, which meets the WHO standard on safe fluoride levels.
- iii) When 75 mg of Tulsi plant leaves were soaked in fluoridated water and left for eight hours, it reduced the level of fluoride to below 1.1ppm. (Bardson, Saxena and Sevak).

Nalgonda Technique

- In this fluoride is removed by using aluminium salt, lime and bleaching powder.
- This is one of the popular techniques used for mitigation of fluoride.

CONFLICT OF INTEREST

Authors have no conflict of interest to declare.

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Chapter 7.

EMERGING THREAT AND CHALLENGES OF FRESHWATER BIODIVERSITY

PRADNYA KADU, POOJA GAKKHAD

Department of Microbiology, Karamshibhai Jethabhai Somaiya College of Art, Commerce and Science Kopargaon, Maharashtra, India.

Email: pradnyaskadu@gmail.com

Abstract:

Availability of freshwater is the primary requirement of all living forms. It is also an important resource for almost all human activities. Not only humans but several other living species depend on freshwater for their existence. An aquatic ecosystem is the most important part of the earth's balanced environment. It is important to maintain freshwater biodiversity for the conservation of aquatic life and the ecosystem. This chapter provides a brief overview of emerging threats and challenges faced by aquatic organisms and also all living forms that depends on freshwater for their survival. This chapter also focuses on solutions to overcome the threats to freshwater biodiversity.

Keywords: Emerging threats, Aquatic ecosystem, Overexploitation, Habitat Degradation, Species Invasion, Pollution.

Introduction:

Water is the main component of the earth's hydrosphere and the living bodies of water are an important part of earth's ecosystem. It plays an important role in all forms of life. It is a transparent, inorganic substance with the chemical formula, H2O indicating that each of its molecules contains one oxygen and two hydrogen atoms linked by covalent bonds. Due to the little saturation of light at the red wavelength water has an innate blue colour but in small quantities, water appears colourless (Abell & Thieme, 2008). An ecosystem is a community of living things or species. Some ecosystems are very wet and others very dry, some with fresh water and others with salty water. Some ecosystems, like coral reefs, support lots of species, as compared to dry Antarctic valleys, which support very few (Schindler, 1997). A water-based environment is called an aquatic ecosystem which includes lakes, rivers, ponds, wetlands, swamps, streams, etc. Many living organisms that depend on a water-based environment for their food, reproduction, shelter, and other activities are called aquatic organisms. Some aquatic organisms include plankton, nekton, and benthonic zones. These living forms interact with both the chemical and physical characteristics of nature. Generally, two classes of the aquatic ecosystem are known namely the freshwater ecosystem and the marine ecosystem (Strayer & Dudgeon, 2010). The marine ecosystem is the largest aquatic ecosystem. The hydrosphere contains about 97% of marine water and 3% of freshwater which is distributed into various categories like 30.1% Groundwater, 68.7% Glaciers and Icecaps, 0.30% surface water, and 0.9% other. The surface water is sub-divided into 87% lakes, 11% swamps, and 2% rivers.

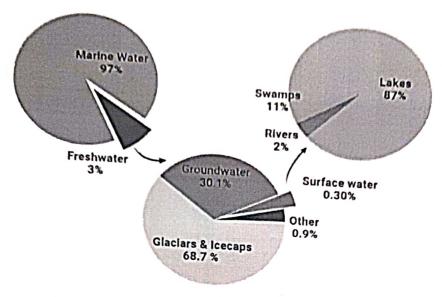


Figure 1: Distribution of Water on Earth's Surface

The threat to the freshwater environment remains higher in developed and developing countries. These threats to biodiversity include overutilization, flow modification, water pollution, construction of dams, destruction of habitat, or degradation of natural elements. Agriculture runoff and climate change is the biggest emerging threats today to freshwater diversity. Usual chemical stresses like the acidification process, pesticide contamination, and eutrophication have a negative impact on freshwater biodiversity. Emerging Threats to Freshwater Biodiversity Freshwater is the primary requirement for all living forms. It is also an important resource for almost all human activities. As only 3% of the total earth's water is freshwater, which is consumable to living organisms it is included in the most endangered ecosystem on earth (Carpenter & Fisher, 1992). Not only humans but several other living species depend on freshwater for their existence including phytoplankton, aquatic plants, mammals, birds, fishes, reptiles, etc. The freshwater biodiversity is endangered due to the number of crises and unnecessary use of freshwater. The biggest threats to freshwater biodiversity include water pollution, overexploitation, flow modification, habitat degradation, and species invasion (Dudgeon & Arthington, 2006).

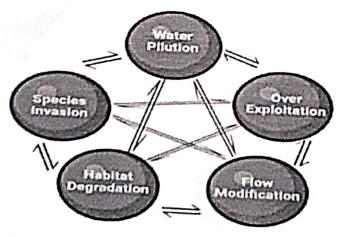


Figure 2: Categories of five major threats to freshwater biodiversity

1. Water Pollution

An aquatic ecosystem is the most important part of the well-balanced environment of the earth. Freshwater biodiversity is also an important part of the total aquatic ecosystem. It includes phytoplankton, zooplankton, aquatic plants, mammals, fishes, reptiles, etc. Water pollution is a big threat to those aquatic life (Dudgeon, 2019). Water pollution has a direct impact on the aquatic ecosystem. It affects their growth and development. Many factors are responsible for causing pollution in freshwater resources, which include runoff of sewage and over-abstraction. Agricultural and industrial wastes into freshwater ecosystems. Sewage runoff contains household and domestic wastes; Industrial runoff contains hazardous chemical and material deposition and agricultural wastes contain deposition of harmful chemical pesticides, insecticides, and fertilizers into the freshwater ecosystem. These water pollutants ultimately show adverse effects on freshwater biodiversity (Reid & Carlson, 2019).

2. Overexploitation

Exploitation simply means, taking advantage of any resource or thing for the self-centered benefit of oneself to obtain profit from those resources. Overexploitation refers to taking excess benefits from freshwater biodiversity resources. It has an adverse effect on fishes, reptiles, vertebrates, and some amphibians. Freshwater overexploitation includes overfishing, excess hunting of aquatic animals, and unnecessary use of freshwater. Overexploitation results in the destruction of freshwater biodiversity (Cazzolla, 2016).

3. Habitat Degradation

Habitat degradation is the concept in which natural habitats fail to support the growth and development of their native species. Some human origin processes make aquatic habitats unsuitable for the native species of that habitat. Habitat degradation is a major threat to freshwater biodiversity. Human activities like water pollution, flow modifications, in-water constructions, artificial interference in the aquatic ecosystem, oil accumulation in water, etc. are responsible for habitat loss (Moore & Pace, 1997). Due to habitat loss, the species that depend on that particular habitat for their survival come under emerged conditions. occurrence of non-native species results in an invasion of native species. These kinds of species invasions in freshwater habitats result in disturbances of freshwater biodiversity. Hence, species invasion causes a primary threat to freshwater biodiversity (Ceschin, 2021). Light generation and production, domestic applications, drinking purposes, washing, cooking, cleaning, etc. are some of the uses of water. Scarcity of freshwater is a serious problem caused by many reasons like global warming, soil erosion, cutting of trees, construction of dams and many more. Threats to freshwater biodiversity can disturb aquatic life as well as human life. Zooplanktons as well as phytoplankton are also the habitat of freshwater diversity (Hermoso & Abell, 2016). Many species of freshwater are becoming extinct as compared to marine species or terrestrial animals. Excess fishing, plastic deposition, migration, habitat demolition, and oil spills in water are some of the challenges caused by human activities that are faced by freshwater organisms. Not only do human activities cause deleterious impact but there are some environmental factors like water temperature, salinity, humidity, pH, and soil attrition disrupts the survival of aquatic creatures (Dudgeon, 2010). It is very important to find a solution to this problem and to emerging threats. It is necessary to prevent this loss of freshwater. International Organizations like IUCN (International Union for Conservation of Nature) work great for the prevention of ecosystem. Protection of nature, its strategic use, and collection of data to help governance of intrinsic resources, field projects, and work for the conservation of extinct species are some of the functions performed by IUCN. The corporate sector along with IUCN, governs an eco-friendly use of renewable resources. Some regional and global projects are undertaken as a solution to solve the problems faced by aquatic

biodiversity (Abell & Vigerstol, 2019).

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Chapter 2.

CLIMATE CHANGE AND ITS IMPACT ON FRESHWATER BIODIVERSITY

AAKASH PAWAR, YOGESH CHAUDHARI, JAGRUTI PATIL

Department of Microbiology, Karamshibhai Jethabhai Somaiya College of Art, Commerce and Science Kopargaon, Maharashtra, India.

Email: aakashpawar7373@gmail.com

Abstract:

Climate change is a major environmental problem that is mainly faced all across the world. India is a country that mainly faces various difficulties. Climate change is a long-term shift in the temperature including weather patterns. Natural as well as anthropogenic activities are the main causes of climate change. The types of ecosystems consist of Forest ecosystems, Grassland ecosystems, Wetland ecosystems, Mangrove ecosystems, Marine and Coastal ecosystems as well as Agro-ecosystems. Biodiversity is important for the processes that promote all life on the earth. Freshwater biodiversity, as well as inland waters, are important natural resources for the scientific, economic, aesthetic, and cultural in addition to educational terms.

Keywords: Biodiversity, Agro-ecosystem, Climate change, Inland Waters, Freshwater.

Introduction:

Climate change is a long-term alteration of the temperature and weather patterns (Riedy, et al., 2016). Climate change brings about several types of environmental changes. This results in droughts, heat waves as well as fires in certain areas, including other areas floods including freak storms (Desjardins, et al., 2013). Climate change is a major environmental problem that is mainly faced all across the world. India is a country that mainly faces various difficulties. Climate change is related to several negative effects on agriculture, forest, water resources, biodiversity, coastal management as well as rising temperature. The major negative effect of climate change in India is the decrease in crop productivity (Balasubramanian, et al., Birundha, et al., 2012). Natural as well as anthropogenic activities cause climate change (Gulzar, et al., Mehmood, et al., Ganie, et al., Showqi, et al., 2018). Water is essential for life (Agrawal, et al., Pandey, et al., Sharma, et al., 2010). Human beings mainly depend on water for various purposes (Lugo, et al., Lugo, et al., Puente., et al., 2021). The aquatic ecosystem is the main useful consequential source for the biological diversity (Irfan, et al., Alatawi, et al., 2019). A freshwater system like wetlands, lakes, rivers as well as floodplains plays a crucial role in human purposes including goods as well as services, they give major applications in survival as well as well-being (Vari, et al., Podschun, et al., Eros, et al., Hein, et al., Pataki, et al., Ioja, et al., Adamescu, et al., Gerhardt, et al., Gruber, et al., Dedic, et al., Ciric, et al., Gavrilovic, et al., Baldi, et al., 2022).

Freshwater in the world is only 0.01% of the water including land surface is around 0.8%. The approximate 126,000 defined species rely on the freshwater habitats, consisting of species like insects, fishes, reptiles, mollusks, plants as well as mammals. Freshwater biodiversity, as well as inland waters, are important natural resources for the scientific, economic, aesthetic, and cultural in addition to educational terms (Arya et al., 2021).

Causes of climate change:

Climate change is a long-term shift in the temperature as well as weather patterns (Nda, et al., Adnan, et al., Ahmad, et al., Usman, et al., Razi, et al., Daud, et al., 2018). The two main climate change causes such as Anthropogenic as well as natural causes (Stern, et al., Kaufmann, et al., 2014).

Anthropogenic Causes:

Human actions are changed that leading to changes in the atmospheric constituents of the earth's surface. The Human actions that cause a change in climate such as the burning of fossil fuels, and deforestation, including the development of land for the farms, roads as well as cities. Due to these actions, greenhouse gases are released into the atmosphere (Mohanty, et al., Mohanty, et al., 2009).

1. Deforestation:

Forests is playing a very crucial role in Earth's climate system, widely in various manners. Majorly for earth's climate change, that is absorbed carbon dioxide in the atmosphere then changed into the living biomass with the help of photosynthesis. Forests function like natural filters to carbon dioxide captured from the atmosphere. While forests are burned along with clears that are used for like cropland, infrastructure, pasture as well as urbanization. Due to deforestation result, the released available carbon is assembled, In both the trees themselves as well as in the soil of the forest. The forests cover is removed to change the regional patterns of the climate of the catastrophic rainfall spells that regard extended dry periods (Longobardi, et al., Montenegro, et al., Beltrami, et al., Eby, et al., 2016).

2. Emissions of Greenhouse Gases:

Since pre-industrial time, the surface of land air temperature is increased about twice to average global temperature because of greenhouse gases emission. The Constant greenhouse gases emission in the industrialized nations causes sea level increases, hydrometeorological events as well as seasonal inconsistencies. Globally, economic as well as population growth carries on the main crucial operator for rising the emissions of CO2 from the combustion of fossil fuels (Cassia, et al., Nocioni, et al., Aragunde, et al., Lamattina, et al., 2018).

3. Burning Fossil Fuels:

In global agricultural food, part uses greater than 30% of the global end-used energy need, which is greatly met in sources of fossil fuels, along with emits about 22 percent of the entire anthropogenic

greenhouse gases. As Per NRC (2011) Earth is becoming warmer due to the human activity's inclusion of the heat-trapping greenhouse gases such as CO2, CH4, N2O, as well as water vapor in the atmosphere, majorly with the burning of the fossil fuels. The uses of fossil fuels are expanded, and the quantity of that gases in the atmosphere increases. The fossil fuels combustion (burning of the natural gases, oil as well as coal), cement formation, etc., rises of CO2 level and decreases of CO2 absorbed by trees. The rising concentration of CO2 is the main greater participation in global warming.

4. Urbanization:

Urbanization is driving the propulsion of the economy that promotes to change of the surplus labor from of rural agricultural part into the urban industrial part that participated in the development of an economy. Although, unexpected urbanization causes adverse effects on deforestation, environmental degradation, economy along with participating in the global warming as well as climate change. The urban extension increases warming in the cities as well as their surroundings (effect of heat island), mainly in the heat associated events, like heat waves.

5. Emissions of Pollutants:

Certain industrial as well as agricultural activities emit pollutants (apart from Greenhouse Gases) it forms aerosols. Certain aerosols further affect the production of the clouds, which are the warming as well as the cooling effect based on their kind as well as location. The black carbon materials or soot formed during fossil fuels as well as vegetation burned, mainly to the warming effect that absorbs the solar radiation.

Natural causes:

The earth's climate is affected as well as changed because of several natural causes such as Sun's intensity, Changes in the Earth's Orbit, Volcanic Eruptions as well as Sea-level rise.

1. Sun's Intensity:

Climate is affected by various natural changes it influences the amount of solar energy that comes to Earth's surface. The changes that take place in the sun itself may influence the sunlight intensity it comes to the Earth's surface. A quantity of the heat energy accepted of any region in the globe is the direct effect of sun angle on the climate, for the angle that sunlight strikes Earth differs with location, season as well as the time of day because of Earth's orbit around the sun including Earth's rotation around the tilted axis. The sunlight intensity brings about either the warming (In the times of higher solar intensity) or cooling (In the times of smaller solar intensity).

2. Changes in the Earth's Orbit:

By Rutgers University (2018), the Earth's climate is influenced by the several components that deal with Earth as a whole, as regards its location in the space respective to the sun. That components consist of the angle of the Earth's axial tilt (also called Earth's obliquity), an eccentricity of the Earth's

orbit as well as the Earth's location of time in precession to solstices including equinoxes (along with distinct Earth-Sun distances of any season) that participate in the climate change (Fakana, et al., 2020).

3. Volcanic Eruptions:

Volcanic eruption releases the molten rock and lava, into the deep of the Earth, greenhouse gases. That give negative effects on the atmosphere. The gases, dust particles, as well as ashes, are released into the atmosphere at the volcanic eruptions that cause the climate. Major particles spewed from the volcanoes cool a planet to shade coming solar radiation. The volcanoes vent an enormous quantity of water vapor as well as carbon dioxide while they are erupting (Robock, et al., 2000).

4. Sea-level rise:

The average sea level increase is predicted of increases due to the thermal expansion of oceans as well as glaciers melting including ice sheets. The main reasons for the sea-level increases are the loss of the land-form ice as well as thermal expansion. A loss of the land-form ice (like glaciers as well as sheets of ice) because of that enlarged melting Sea-levels it increased by around 17 cm (the global average). The thermal expansion is brought about by the warming of oceans (the water enlarges as that warms); i.e., warmer oceans specified great space (Mimura, et al., 2013).

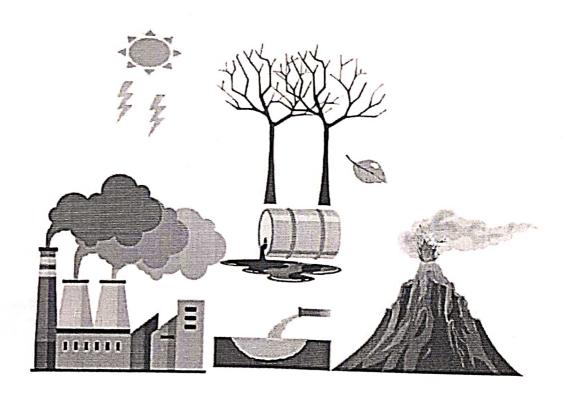


Figure 1. Causes of climate change (Adopted from Google)

Biodiversity of India:

The term biodiversity was coined by Walter G. Rosen in the year 1985. Biodiversity is described as a "complete range of the life in all it's produced. It consists of habitats in that life develops, a way of its species as well as the habitats associated with each other, including a physical environment along with processes required for that interaction (Stephen, et al., Suresh, et al., Livingstone, et al., 2015). India is the 12 mega diversity country in the world, which shows 11 percent of the world's flora of around 2.4 percent of the UN global landmass. Around 28 percent of the entire Indian flora, as well as 33 percent of angiosperms, appear in India are endemic (Chitale, et al., Behera, et al., Roy, et al., 2014).

Ecosystem types:

1. Forest Ecosystems:

Forest ecosystems are greatly varied. As per Champion as well as Seth's classification, forest kind is a unit of the vegetation possessing physiognomic, as well as structural characteristics hence, pronounced it shows different from the other units. The Tropical forests of the country are distinguished in the sequence of the consecutively drier climatic kinds. A dense as well as multiple layered moist tropical forests that are present in large temperatures along with rainfall and consist of (i) the wet-evergreen forests, described to the dense growth of the tall trees, as well as huge in epiphytes, climbers, shrubs as well as lianas yet low of herbs including grasses; (ii) the semi-evergreen forests described to the dense growth of the combined deciduous in addition to evergreen trees further a great carpet herbs layer, ferns as well as grasses; (iii) the moist-deciduous forests, described to the dominance of the deciduous trees including the lesser story of the evergreen trees including shrubs; (iv) littoral as well a swamp described to dominance in the halophytic evergreen plants.

2. Grassland Ecosystems:

Grassland ecosystems are several regions in India that formed because of the destruction of the natural forests through biotic intervention, especially because of enormous grazing as well as clearing of land for agriculture. As Per Whyte (1968), a region of grass cover kinds is mainly governed by climatic components, including primary latitude.

3. Wetland Ecosystems:

An inland aquatic ecosystem is greatly varied and consists of lakes, streams, rivers, lagoons, springs as well as estuaries, and several human-formed habitats like rivers, ponds, and canals. Aquatic ecosystems consist of wetlands carrying various communities that harbor around 1800 algal species as well as 1250 species of higher plants. An aquatic (including wetland) flora (consisting of algae) incorporates greater than 15% of India's entire assessed floristic diversity.

A mangrove is described as the ecological group of the halophytic species of plant including a diverse composite plant community dominated by that species. A coastal zone in the mainland of India and the islands of Andaman and Nicobar is endowed with the existence of the broad as well as varied mangroves. Mangrove ecosystems are between the great products as well as biologically varied ecosystems composed of links among terrestrial as well as marine ecosystems.

5. Marine and Coastal Ecosystems:

The expansion of the marine biodiversity in India is nearly lesser-known. Greater than the 13,000 coastal as well as marine species that are described in India. The entire region of the coral reefs consists of 2,375 sq km. The main coral reef ecosystems like the Gulf of Mannar, Andaman, and Nicobar, Gulf of Kachchh, as well as Lakshadweep Islands, embrace all three main reef kinds (atoll, fringing as well as barrier). Following the fourth National Report of India's Convention on Biological Diversity (CBD). The Andaman Islands is about 80% in global coral diversity, proposing the last count would attain till the 400 species.

6. Agro-Ecosystems:

India in which a diversity of different agro-ecosystems, described the difference in the climatic, edaphic as well as geographic characteristics, including as a consequence of various cropping methods in addition to crop constitution. In India greater than 800 species of crop, every with an immense difference, like rice possesses 50,000 varieties, as well as sorghum, which possesses 5,000 varieties. Commonly a broad variety of weeds form a component in the agro-ecosystems. A National Bureau of the Soil Survey and the Land used design to differentiate 20 wide agro-ecological areas, based on natural characteristics as well as growing times. That high variety in the ecological zones represents different agro-ecosystems (Singh, et al., Chaturvedi, et al., 2017).



Figure 2. Freshwater biodiversity on Earth (Adopted from Google)

Freshwater biodiversity:

Freshwater biodiversity is the main conservation basis in "water for the life". Water is the basic resource for the life-promoting system (Agrawal, et al., Danai, et al., 2017). The above 10, 000 fish species are present in the freshwater, around 40 percent of the global fish diversity as well as a quarter of the world's vertebrate species. Including several aquatic reptiles (turtles, crocodiles), amphibian species as well as mammals (otters, dolphins, river, platypus) in the freshwater habitats (Gatti, et al., 2016). The Freshwater ecosystem is the very essential ecosystem that gives humans as well as other organisms fundamental requirements like water as well as food (Izam, et al., Azman, et al., Jonit, et al., Sallehoddin, et al., Khairul, et al., Abidin, et al., Farinordin, et al., 2021).

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RECENT TRENDS IN ENVIRONMENT AND BIODIVERSITY

DR. ADITYA NARAYAN &

MR. ROHAN YADAV

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Rencent Trends in Environment and Biodiversity

Chapter 4.

FRESHWATER BIODIVERSITY INDICATORS OF EUTROPHICATION AND **POLLUTION**

MILITA VANJARE, URMILA AHIRE

Department of Microbiology, Karamshibhai Jethabhai Somaiya College of Art, Commerce and Science Kopargaon, Maharashtra, India.

Email: militavanjare@gmail.com, ahireurmila15@gmail.com

Abstract:

Natural eutrophication is the term for that excess nutrient present in water bodies caused by natural processes. In a flood, nutrients from the bottom of the land can be carried away and deposit in a lake or river. These pools of water become extremely nutrient-rich, allowing for the rapid growth of algae and other basic plant life. The reason behind anthropogenic eutrophication is human action. Humans provide nutrients in the form of fertilizers to agricultural farms, golf courses, and lawns, among other places. Due to surface runoff, the fertilizers eventually end up in water bodies likelakes and rivers. Under the condition of eutrophication, phytoplankton growth occurs rapidly. These few species of phytoplankton are very toxic and unsavory. Some planktons are useful for marine life. There are some biological indicators available to check the quantification of the eutrophic environment such as Chlorophyll-a, D/O, Nitrogen, and water transparency. With thehelp of these biological indicators, eutrophication can be controlled at several levels.

Keywords: Eutrophication, Phytoplankton, Dissolved oxygen, Algal blooms, Nutrients, Pollution.

Introduction:

Background of freshwater ecosystem:

Freshwater is mainly referred to as water with a very small content of salt. The ecosystem of freshwater includes several types of water bodies with low salt concentrations such as rivers, lakes, streams, ponds, wetlands, bogs, springs, etc. The freshwater ecosystem is completely unlike the marine ecosystem which has a high salt concentration (Carpenter & Christensen 1995). The freshwater ecosystem is of three types. The first one is the Lentic type in which the water is slow- moving including the water bodies like lakes, pools, ponds, etc. The second one is the Lotic type in which the water is fast-moving including the water bodies like rivers, streams, etc. and finally, Feel the third one is the wetlands which are the areas where most of the portion of soil is covered by water (Paerl 1988). As per the components of the freshwater ecosystem are concerned, there are some rooted plants and phytoplanktons that are present which are generally referred to as producers.

Biodiversity of freshwater ecosystem:

Biodiversity simply means the various life forms surviving in that specific environment. It includes all types of the life forms such as varieties of animals, fungi, plants, microorganisms, etc. Hence, the biodiversity of the freshwater ecosystem means life in "fresh" water. So, freshwater biodiversity is the different types of life forms which are surviving in the freshwater bodies (Benndorf, J. 1990). Many living species are dependent on freshwater biodiversity for their survival. Freshwater plays an important role in the local ecosystem. As the freshwater biodiversity contains various life forms such as producers, consumers, and decomposers, some of these can be important for local life as it provides a source of income as well as food to human. Some plants, animals, fungi, algae and microfauna are included in freshwater biodiversity. Freshwater biodiversity also plays an important role in controlling pollution of water and this can be done by several aquatic species.

Pollution in the freshwater ecosystem:

The pollution of water is the phenomenon in which water is contaminated by various factors such as biological, chemical, physical, inorganic, and organic factors and turns the water completely unusable. Water pollution majorly affects the biodiversity of water. The pollution of water can lead to diminish the freshwater ecosystem and trigger the turbulent growth of phytoplankton, and some other pollutants in water bodies and shows destructive effects on the life forms. The food chain is also disturbed due to water pollution.

Among the total 3% of fresh water on earth, only a small amount of freshwaters resources such as 1% or less can be facile for us. Industrial wastes, community wastes, agricultural waste, and thermal pollution can be the major cause of water pollution along with Eutrophication (Boyd & Tucker 1998).

Eutrophication:

The term Eutrophication is derived from the Greek word – Eutrophia which means a state of normal nourishment and growth. In simple words, Eutrophication is the curse or any kind of syndrome to the water ecosystem or we can say life-threatening disease to the water ecosystem.

Eutrophication can be referred to as the process in which the entire water body is completely inundated with nutrients and minerals. Due to these, the productivity rate of phytoplankton is very high during this process. In the process of Eutrophication, we can see the algal growth on the entire surface of the water bodies.

Eutrophication is physically identified by the layer formed on the surface of lakes, rivers, etc. This layer of algae is also known as algal blooms. The explosion of the population of algae as well as blue-green bacteria which is commonly called Cyanobacteria leads to covering the entire surface of the water and stops penetration of sunlight under the water. When sunlight is unable to penetrate under the water, this condition becomes extremely dangerous for the life forms such as plants that

are present under the water which is covered by the algal blooms because of Eutrophication Chorus, I., & Welker, M. (2021). The oxygen needed for the animal to respiration cannot enter the water. Because of the less oxygen supply, animals get suffocated, and ultimately, they die. Similarly, due to restrictions on the penetration of sunlight, the plants present under the water cannot be able to perform photosynthesis, and ultimately, they also die. Hence, overall Eutrophication shows an adverse effect on the biodiversity of freshwater.

Eutrophication occurs when there is an excess of nutrients in a water body, leading to abundant growth of basic plant life. The definition of eutrophication is a well-established relationship between nutrient levels and growth in phytoplankton biomass. However, many definitions have been proposed by different authors and authorities.

"Eutrophication – in its more generic definition that relates both fresh and marine waters – is the process of enrichment of waters with principally nitrogen, plant nutrients, and phosphorus, which increases aquatic primary production and, in more severe cases, they cause visible algal blooms, algal scums, and accelerated benthic algal development of submerged and floating macrophytes." (Vollenweider (1992)

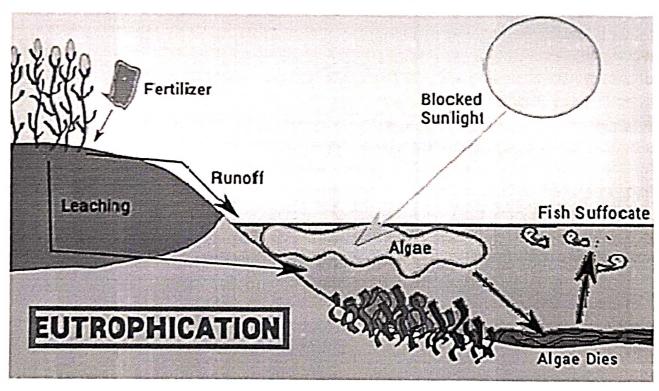


Figure: 1: Eutrophication process (Adopted from Google)

Freshwater Biodiversity indicator:

The quantification of eutrophication is a very difficult task. The marine ecosystem is too complex by the regular interconnection between biological, physical, and chemical components. Some indicators are available to check out the intensity of eutrophication.

Dissolved Oxygen:

Dissolved oxygen which is present in water is a very important term for all aquatic entities. Algae need oxygen to grow they utilize the oxygen present in water. Enormous algal biomass provides little water. At a low concentration of oxygen present in water, fish cannot be able to survive in water and they will die.

Nutrients:

Orthophosphate, Total nitrogen (N), nitrogen in nitrate (NO3-), and Total phosphorus (P), are the important elements that can be estimated. Nitrate and Phosphate are also the most abundant nutrients for plants development. The nutrients in high concentration will also enhance the biomass of the algae.

Chlorophyll a:

Chlorophyll measures the number of algae present in water bodies. Algae use oxygen, light, and Chlorophyll for their photosynthetic nature.

Water transparency:

It is the parameter that indicates the amount of light that can enter the water. Secchi disk is commonly used to measure this parameter. Secchi disk dipped in water to measure the class of water.

Biological water quality:

This parameter is suitable to check water quality for living organisms present in it. Fish live longer as an indicator of good water quality.

Phytoplankton abundance:

Eutrophication scaling based on phytoplankton cell counts has received little attention. Cell number, on the other hand, was shown to be an effective variable in evaluating spatial trends in published work on spatial analysis (Kitsiou and Karydis, 2001; Kitsiou and Karydis, 2002). It was suggested that the following scale be used: (a) oligotrophic waters with up to 6x103 cells L-1; (b) mesotrophic waters with up to 1.5x105 cells L-1; and (c) eutrophic waters with more than 1.5x105 cells L-1.

Causes of Eutrophication:

The presence of nutrients like phosphorus and nitrogen limits the plant growth of the ecosystem. The growth of plankton, algae, and other simple plant life is supported by the growth of more sophisticated life of plants when water bodies are too loaded with these nutrients.

Controls:

Because of the broad quantity of water quality mortifications connected to the enrichment of nutrients, eutrophication has been to show a severe risk to potable sources of drinking water, fisheries, and restoration water. Eutrophication and cyano-bacterial blooms are still ubiquitous in outside waterways throughout the world; however, many towns have acknowledged controlling point-source loading of nutrients (Smith & Schindler 2009). Human population enlargement and climate change are responsible for the worst quantity and quality of water. Therefore, management of water resources ought to learn how to minimize the intensity and frequency of algal material and cyanobacterial blooms possibly quicker (Paerl & Paul 2012).

To reduce the results of eutrophication, water resource management have to use different strategies, including (1) nutrient redirection (Edmondson 1970), (2) change in the nutrient ratio (Downing et al. 2001), (3) physical mixing (Huisman et al. 2004), (4) the use of opaque liners or water-based dyes to shade water bodies, and (5) the use of powerful herbicides and algaecides (Boyd & Tucker 1998). These efforts have generally proved ineffectual, expensive, and unfeasible, particularly for vast, complicated ecosystems (but see Edmondson 1970).

For increasing water quality, it is necessary to decrease the concentration of phosphorous and nitrogen content present in water bodies. There are many methods available to control nutrients present at the bottom which ultimately enhance the quality of water and also increases the clarity of the water. Treatment of reducing nutrients is very costly and difficult to control specifically in agricultural areas where sources of algal nutrients are from nonpoint sources. In lakes where the loading of external fertilizers has to be reduced this method can improve the water quality. Limit the internal nutrient load from sediment is necessary for water quality enhancement. (Sndergaard et al. 2003).

In earlier Algaecides and copper sulfate are used to treat or reduce harmful algal blooms from the water. Which is also an effective method (Boyd & Tucker 1998). But the use of algaecides is an expensive method. There are many drawbacks of this method as it is harmful to humans and cattle. Algaecides may also harm aquatic life.

Bio-manipulation is the term use to reinstitute ecosystem health. There is another view for enhancing the quality of the water where rich nutrients are available (Shapiro et al. 1975). The primary assumption means Planktivorous fishes known as secondary consumers are eliminated by the addition of planktivorous fishes known as tertiary consumers or by using the harvesting method. Dolphina uses for phytoplankton control. The zooplanktons with large bodies dominate the zooplankton grazers with small bodies, which are not as efficient as compared to large body zooplanktons. Phytoplanktons and zooplanktons form a correlation in them which shows a significant effect on the freshwater ecosystem and population of freshwater.

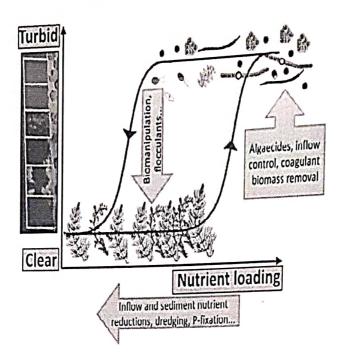


Figure: 2: Process of enhancing water transparency (Lürlingn & Mucci 2020).

Pollution of water:

Water pollution takes place when hazardous and poisonous wastes such as chemical substances, or other particles invade the water bodies including the sea, oceans, rivers, and ponds getting dissolved in them or lying suspended in the water or getting deposited on the bed, resulting in a reduction in the quality of water. Polluted water is harmful to aquatic life. Household waste also leads to contamination of the water (Sharpley & Smith1998). We use water on a daily basis including for drinking purposes, bathing, etc. Sometimes pollution of water can occur due to natural activities such as animal waste, volcano eruptions, algal blooms, and residues from storms and floods. Even though, everyday sewage and even garbage from cities are dumped into rivers resulting in the pollution of the water. Other components are also present which may lead to water pollution, for example, combustion, oil spills, chemical fertilizers, fossil fuel, and pesticides used by farmers. Consuming this polluted water causes diseases including hepatitis and diarrhea. Also, in poor nations, because of lack of development, due to contaminated water, the outbreak of cholera and some other infectious diseases are often observed. Because of the water pollution, aquatic life which is depending on it will be destroyed. Crabs, birds, fishes, and many other animals which survive on freshwater will be killed in a polluted water environment. And all these components ultimately show harmful effects on the ecosystem, threatening life on earth (Carpenter & Christensen 1995).

It is important to save fresh and clean water first to prevent pollution. Taking care of not wasting water. Dispose of medications correctly. The use of Pesticides and herbicides should be avoided.

It is necessary to reduce or completely remove hazardous material used in the production industry. Wastewater treatment is an important factor to avoid water pollution. Prevent plastic and another chemical from entering the water bodies which are harmful to aquatic life.

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