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RESEARCH ESSENCE

Peer-Reviewed Multidisciplinary Biannual Journal



Sree Narayana College, Sivagiri, Varkala

Sreenivasapuram P.O., Sivagiri, Varkala, Kerala, India, Pincode - 695145

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It gives me immense pleasure to know that a Peer-Reviewed biannual multidisciplinary research journal “**Research Essence**” is being published from **Sree Narayana College**, Sivagiri, Varkala. It seeks to promote and coordinate academic pursuits and research projects in the Science and Humanities. The journal serves as a forum for sharing ideas, insights and experiences. It aims to cater to the interests and needs of all who are deeply concerned about quality improvement in education and committed to the quest for academic excellence.

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***Bauhinia acuminata* A study on Seed Desiccation and Germination.**

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Abstract

Bauhinia acuminata, a large evergreen shrub, is cultivated both as an ornamental and a medicinal plant. The plant exhibits a variety of pharmacological properties, including antimicrobial, anti-inflammatory, antioxidant, and cytotoxic activities, and has gained recognition in traditional medicine for its therapeutic safety. This study explores the relationship between seed moisture content, viability, and germination percentage of *B. acuminata*. Fresh seeds exhibited a moisture content of 15.88% and an initial germination percentage of 69.66. Despite 100% viability in TTZ tests, moisture content below 10% showed a decline in both viability and germination percentage over time. By the 20th week, seeds had a moisture content of 8.13%, with germination reduced to 62.18%. These results suggest that *B. acuminata* seeds exhibit orthodox seed behaviour, capable of tolerating desiccation to moisture levels below 10%.

Introduction

The genus *Bauhinia* comprises approximately 300 species distributed across tropical and subtropical regions. It belongs to the Leguminosae family and includes shrubs, trees, and climbers. About 15 species of *Bauhinia* are found in India among which *Bauhinia acuminata* is an important medicinal plant of the Indian subcontinent, native to Asia. This species has some pharmacological activities; antimicrobial, anti-inflammatory, antinociceptive, anthelmintic, antioxidant, antidiarrheal, cytotoxic, and hemolytic activity. It has increased acceptance in Ayurvedic and other traditional practices due to its safe therapeutic effect and lack of side effects as such modern drugs rely more on herbal resources (Divya Sebastian Rose, 2020). The bark, leaves, stem, blooms, and roots of the plant are utilized in conventional drugs. Javanese use the roots to treat cough and cold. In India, a decoction of the leaves and bark is used to treat asthma. Besides its medicinal use, *B. acuminata* is valued as an

ornamental plant and is utilized in air pollution mitigation and bonsai cultivation. The primary mode of propagation is through seeds. It was decided to study such a medicinally and ornamentally important plant to understand the seed characteristics, focusing on seed moisture content, viability, and germination percentage to conclude the nature of the seed.

Materials and Methods

Seed Collection and Storage

Mature pods of *B. acuminata* were collected from Kilimanoor, Ponganad, and Peringammala between December 2024 and April 2024. Seeds were extracted from pods, stored in open containers under laboratory conditions, and monitored biweekly for moisture content, viability, and germination percentage.

Moisture Content Determination

Seed moisture content was determined using the International Seed Testing Association (ISTA)

protocol. Fresh and dry weights were measured using a high-constant hot air oven at 130°C for one hour. Moisture content was calculated as:

$$\text{Moisture content (\%)} = \frac{\text{Fresh weight} - \text{Dry weight}}{\text{Fresh weight}} \times 100$$

Viability Testing

Viability was assessed using the Tetrazolium (TTZ) staining method. Seeds were preconditioned by soaking in distilled water for two hours, cut longitudinally, and soaked in 1% TTZ solution for 24 hours. Stained seeds (deep red) were considered as viable. The viability percentage was calculated as:

$$\text{Seed viability (\%)} = \frac{\text{No of stained seeds}}{\text{Total number of seeds}} \times 100$$

Germination Trials:

Germination tests were conducted alongside viability assessments. Seeds were sown, and the percentage of germination was recorded.

Results

Moisture Content and Viability:

Fresh seeds exhibited a moisture content of 15.88% with 100% viability in TTZ tests. The

Initial germination percentage of fresh seed is about 69.66%. After four weeks, when moisture content reaches 14%, there is a hike in germination percentage (93.33%). By reaching 13.51% moisture content, 100% seed germination was noticed. It is the highest germination percentage attained during the desiccation study. With a decline in moisture content, the seed showed a tendency of reduction in germination percentage. During the 10th week, only 93% of seeds get stained in TTZ. Moisture content got reduced by 11.26%. During the 12th week viability declined to 80% and the percentage of germination was about 73.33%. In the 14th week, the moisture content reaches 10.14%. In the 16th week, the viability was reduced to 72% with a germination percentage of 70. During the 20th week of the study, 62.18% of seeds germinated, and 60% of seeds got stained in TTZ. Quick variability test in TTZ and germination during the initial phase of storage show no correlation even though 100% variability whole seeds not germinated. After reaching 13.51% of moisture content, the variability and germination percentage tend to reduce.

Duration	Moisture Content (%)	Viability (%)	Germination (%)
Fresh Seed	15.88	100	69.66
2 Weeks	14.56	100	86.66
4 Weeks	14.00	100	93.33
6 Weeks	13.51	100	100.00
8 Weeks	11.44	100	93.33
10 Weeks	11.26	93	82.63
12 Weeks	10.72	80	73.33
14 Weeks	10.14	76	73.33
16 Weeks	9.46	72	70.00
20 Weeks	8.13	60	62.18

Discussion

Initial moisture content (15.88%) showed no correlation between viability and germination up to the 6th week. From the 8th week onwards as the moisture content decreases, the viability and germination percentage also decrease. In *Cesalpinia pulcherrima* the seed storage up to six months increases the germination and viability (Janaina S. Ferro *et al.*, 2019). In the 20th week of the study the seeds moisture content reached 8.13% with a germination percentage of 62.18. Hence the seeds can withstand desiccation below 10% of moisture content and the seeds tend to show orthodox nature. At the 20th week of the study, more than 50% seeds germinated and the seeds were viable. Other ornamental plants like *B. blackeana*, *B. cockiana*, *B. purpurea* and other species like *B. racemosa* and *B. tomentosa* have initial moisture content ranges between 8% to 12%, all of the seeds showed orthodox behaviour, and are able to store for long time. In *B. coccinia* 25% of seeds that germinated when dried to 12% moisture content belongs to a recalcitrant nature (Jaya suriyaetet *al.*, 2013).

Conclusion

Bauhinia acuminata seeds exhibit orthodox behaviour, tolerating desiccation to moisture levels below 10% while maintaining viability and

germination potential for extended periods. These findings enhance our understanding of seed storage physiology, aiding conservation and propagation efforts for this valuable medicinal and ornamental plant.

References

1. Gehan Jayasuriya, K.M.G., Wijetunga, A.S.T.B., Baskin, J.M., & Baskin, C.C. (2013). Seed dormancy and storage behaviour in tropical Fabaceae: A study of 100 species from Sri Lanka. *Seed Science Research*, 23(3), 257-269.
 2. Moore, R.P. (1985). *Handbook on Tetrazolium Testing*. International Seed Testing Association, Zurich.
 3. ISTA. (1999). International rules for seed testing. *Seed Science and Technology*, 21, 288 pp.
 4. ISTA. (2008). International rules for seed testing. *Seed Science and Technology*, 31(3), 31-33.
- Ferro, J.S., Rocha, D.F., Junior, J.L.A.M., Neto, J.C.A., Silva, J.V., & Junior Pavão, J.M.S. (2019). Germination and viability of seeds of *pulcherrima* newly harvested and stored. *Journal of Agricultural Science*, 11(7).

From Cash to Code: How the e-Rupee is reshaping transactions

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Abstract

The evolution of money has been a journey from the barter system to the adoption of digital currencies, with Central Bank Digital Currencies (CBDCs) representing the latest advancement. India's e-Rupee, introduced by the Reserve Bank of India, reflects the country's commitment to modernizing its financial ecosystem. This paper explores the e-Rupee's introduction, key features, and operation, contrasting it with physical currency and cryptocurrencies. The dual-phase pilot launch in India—wholesale and retail—highlights its transformative potential for financial inclusion, transaction efficiency, and economic resilience. The e-Rupee aligns with global trends as countries worldwide adopt CBDCs, fostering stability and innovation in digital payment systems.

Keywords: CBDC, Cryptocurrency, e-Rupee, digital currency, financial inclusion

Introduction

Money has undergone a remarkable transformation over centuries, evolving from the simple barter system to today's digital currencies. The barter system involved the direct exchange of goods and services without a standardized medium. However, this system faced significant challenges, such as the double coincidence of wants, valuation issues, and storage problems, leading to the emergence of commodity money. Commodity money, such as gold, silver, salt, or cattle, became widely accepted as a medium of exchange. Despite its advantages, commodity money was bulky, difficult to transport, and lacked divisibility. Around 600 BCE, civilizations began minting coins made of precious metals, marking the advent of metallic money. These coins provided a more practical and standardized form of exchange.

As trade expanded, paper money was introduced, offering a lightweight and convenient alternative. Central banks began regulating the

issuance of paper currency, ensuring trust and stability in monetary systems. By the 20th century, there was a significant shift from physical cash to digital banking systems, characterized by the introduction of credit cards, debit cards, and online banking platforms. These advancements revolutionized financial transactions but brought challenges such as transaction delays and centralized control. To address these issues, cryptocurrencies emerged as a decentralized alternative. In 2009, Bitcoin was launched, marking the beginning of blockchain-based digital currencies. Cryptocurrencies offer secure, transparent, and faster transactions, paving the way for the next stage in the evolution of money.

Need and Significance of the Study

With the global and domestic surge in digital payments, the e-Rupee represents a critical step toward reducing reliance on physical cash, addressing issues like inefficiencies in cash handling, and curbing counterfeit currency. It

aligns with the Reserve Bank of India's vision to modernize payment systems and achieve greater financial inclusion by providing secure, traceable, and cost-effective transaction methods. Additionally, the study contributes to understanding the broader implications of the e-Rupee in terms of economic transparency, tackling tax evasion, and enabling efficient interbank settlements. By exploring its integration with existing digital platforms like UPI and its potential to reach unbanked and under banked populations, the study highlights the e-Rupee's role in fostering a resilient, inclusive, and futuristic financial landscape. This research is essential for policymakers, financial institutions, and stakeholders in the digital economy, providing insights to navigate the opportunities and challenges of adopting CBDCs.

Objectives of the Study

- To analyze the impact of the e-Rupee on financial transactions in India
- To evaluate the role of the e-Rupee in enhancing financial inclusion and economic transparency

Methodology

The present study is entirely based on secondary data. The data were gathered from government reports, RBI publications, academic journals and industry studies on digital currencies, CBDC and financial inclusion. The study provides a broader context of study and helps compare the e-Rupee's impact with other digital currencies globally.

Central Bank Digital Currencies (CBDCs): Bridging the Gap

Central Bank Digital Currencies (CBDCs) represent a transformative shift in global monetary systems, merging the stability of fiat money with the efficiency of digital technologies. Unlike

cryptocurrencies, which operate in decentralized ecosystems, CBDCs are digital versions of sovereign currencies issued and regulated by central banks, ensuring reliability and public trust. The concept of CBDCs began gaining traction in the 2010s, fueled by the rise of cryptocurrencies like Bitcoin. While cryptocurrencies introduced innovative payment solutions, their volatility and lack of regulation prompted central banks to explore state-controlled digital alternatives.

The Bahamas became the first country to launch a fully operational CBDC, the Sand Dollar, in October 2020. This digital currency addressed financial inclusion challenges in remote regions by offering secure and efficient transactions. China followed with its Digital Yuan (e-CNY), starting pilot programs in 2020 to modernize payments and reduce dependency on cash. The e-CNY integrates seamlessly with China's established digital payment platforms, such as Alipay and WeChat. Sweden, facing a decline in cash usage, initiated the e-Krona pilot in 2020, focusing on maintaining accessibility and resilience in payments. Today, over 130 countries, including Nigeria (eNaira), Jamaica (Jam-Dex), and members of the Eastern Caribbean Central Bank (DCash), are in various stages of CBDC development, showcasing diverse motivations like improving financial inclusion, enhancing cross-border payments, and modernizing financial systems.

In India, the Reserve Bank of India (RBI) announced the e-Rupee in 2021 to address the country's specific financial needs and align with the global shift. A pilot launch began in December 2022 with two variants: the wholesale e-Rupee for interbank settlements and the retail e-Rupee for public use. Trials initially included major banks like SBI, ICICI, and HDFC, conducted in cities such as Mumbai and Bengaluru. The initiative

aims to reduce dependency on physical cash, enhance transaction efficiency, and bolster financial inclusion, while ensuring centralized control and regulatory compliance. The e-Rupee reflects India's unique economic priorities while contributing to the global momentum for CBDCs.

Understanding the e-Rupee

The e-Rupee, also known as the Digital Rupee, is India's Central Bank Digital Currency (CBDC), issued and regulated by the Reserve Bank of India (RBI). It is a digital form of fiat currency designed to coexist with physical currency while providing a more efficient, secure, and cost-effective payment solution. The e-Rupee is built on block chain and distributed ledger technologies (DLT), ensuring transparency and preventing duplication. It serves as a legal tender, backed by the RBI, making it distinct from crypto currencies, which lack centralized backing.

Introduction of e-Rupee in India

The introduction of the e-Rupee in India marks a significant step in the evolution of the country's payment systems. The Reserve Bank of India (RBI) launched the pilot phases for the e-Rupee in two formats: Wholesale CBDC (e₹-W) and Retail CBDC (e₹-R). Both phases aim to enhance the efficiency of transactions, reduce reliance on cash, and align with global trends in Central Bank Digital Currencies (CBDCs).

Phase 1: Wholesale CBDC (e₹-W)

The wholesale version of the e-Rupee was launched on November 1, 2022, targeting financial institutions for interbank settlements. This phase involved nine major banks, including the State Bank of India (SBI), ICICI Bank, HDFC Bank, and the Bank of Baroda. The primary use case for the e₹-W was to streamline the settlement of secondary market transactions in government

securities. By eliminating intermediaries and reducing settlement times, this initiative aimed to improve the efficiency and security of wholesale financial operations. The successful execution of this phase provided insights into the operational framework and scalability of the digital rupee.

Phase 2: Retail CBDC (e₹-R)

The retail version of the e-Rupee pilot commenced on December 1, 2022, focusing on individual and merchant use. Initially rolled out in four cities—Mumbai, New Delhi, Bengaluru, and Bhubaneswar—the pilot involved four participating banks: SBI, ICICI Bank, Yes Bank, and IDFC First Bank. The e₹-R pilot allowed users to conduct person-to-person (P2P) and person-to-merchant (P2M) transactions using digital wallets accessible on mobile apps. Payments could be made via QR codes or direct transfers. The retail pilot gradually expanded to more cities and additional banks to gather diverse data on user behavior, transaction volumes, and technological adaptability.

Features of e-Rupee

The e-Rupee functions as an electronic representation of the Indian Rupee (₹). Key features include:

- **Legal Tender:** It holds the same value as physical cash and can be used for payments or settlements.
- **Two Formats:** It is available as a Retail CBDC for individuals and merchants and as a Wholesale CBDC for interbank transactions.
- **Centralized Regulation:** Issued and controlled by the RBI, ensuring stability and regulatory compliance.
- **Interoperability:** Designed to work seamlessly across various digital payment platforms.

- **Security:** Uses advanced cryptographic techniques to ensure secure and tamper-proof transactions.

Difference between e-Rupee and Physical Currency

The e-Rupee and physical currency share the same value but differ in their nature and usage:

1. **Physical Nature:** Physical currency exists as banknotes or coins, while the e-Rupee exists only in digital form.
2. **Storage:** Physical currency is stored in wallets or safes, while the e-Rupee is stored in digital wallets or accounts.
3. **Cost Efficiency:** Unlike physical currency, the e-Rupee eliminates the costs of printing, transportation, and storage.
4. **Traceability:** e-Rupee transactions are traceable, reducing fraud and tax evasion, whereas cash transactions are harder to monitor.

How it Works: Wallets, Accounts, and Transactions

The e-Rupee operates through a robust ecosystem involving digital wallets, accounts, and seamless transactions:

- **Wallets:** Users store e-Rupee in RBI-authorized digital wallets linked to their bank accounts or independently provided by banks. These wallets are accessible via mobile or web applications.
- **Accounts:** Unlike traditional accounts, an e-Rupee wallet does not necessarily require full banking services, enabling wider accessibility.
- **Transactions:** Users can conduct peer-to-peer (P2P) transfers or pay merchants directly using QR codes or contactless technologies.

Wholesale transactions, on the other hand, enable banks and financial institutions to settle large-scale interbank transfers efficiently.

Overall, the e-Rupee is designed to integrate with India's existing digital payment infrastructure, such as UPI, while addressing the limitations of cash and improving financial inclusion across the nation.

Conclusion

The e-Rupee represents a critical leap in India's monetary and payment systems, aligning with global advancements in digital finance. Through its wholesale and retail pilot phases, the Reserve Bank of India has demonstrated the feasibility of CBDCs in addressing inefficiencies in traditional financial systems while offering secure and cost-effective alternatives to physical currency. The e-Rupee not only enhances transactional efficiency but also promotes financial inclusion, making digital payments accessible to a wider population. As India continues to refine and expand the scope of the e-Rupee, its integration into the country's existing digital payment infrastructure positions it as a catalyst for economic modernization. Globally, the e-Rupee contributes to the broader movement toward CBDCs, balancing innovation with stability and underscoring India's commitment to leading in the digital currency era.

References

1. Ananth, S. (2022). *The rise of Central Bank Digital Currencies (CBDCs): Implications for financial inclusion in India*. Journal of Digital Finance, 5(2), 15-29. <https://doi.org/10.1016/j.jdfin.2022.02.003>
2. Bhattacharya, S., & Gupta, R. (2023). *India's e-Rupee: A transformative tool for financial inclusion and economic transparency*. Indian Economic Review, 27(1), 57-76. <https://doi.org/10.1007/s41576-023-0031-7>

3. Biswas, S. (2022). *Exploring the future of e-Rupee: The role of CBDCs in reshaping digital payments in India*. Financial Technology Review, 19(3), 42-59. <https://doi.org/10.1007/s10551-022-03456-w>
4. Dube, M. (2022). *Understanding the impact of Central Bank Digital Currencies on global financial markets*. International Journal of Financial Studies, 13(4), 85-102. <https://doi.org/10.3390/ijfs13040085>
5. Frolov, D., & Lee, J. H. (2023). *Comparative analysis of CBDCs: Lessons from the Digital Yuan and Digital Rupee*. Journal of Digital Payments, 7(1), 104-120. <https://doi.org/10.1016/j.jdp.2023.04.010>
6. Kumar, A., & Sharma, P. (2021). *CBDCs: Centralized control in the era of decentralized finance*. Indian Journal of Banking and Finance, 8(1), 99-112. <https://doi.org/10.2139/ssrn.3452570>
7. Reserve Bank of India. (2022). *A pilot launch of the e-Rupee: A new era in digital currency and financial systems in India*. Reserve Bank of India Report, December. https://www.rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=50277
8. Raza, S., & Haider, Z. (2022). *Digital Rupee and the future of digital payments in India*. Indian Journal of Economics, 76(3), 219-236. <https://doi.org/10.1080/00206738.2022.1930398>
9. Singh, R., & Mehta, A. (2023). *The role of CBDCs in global payment systems: Focus on the e-Rupee and its international impact*. Journal of International Monetary and Finance, 41(2), 123-138. <https://doi.org/10.1016/j.jimonfin.2023.01.017>
10. World Economic Forum. (2021). *The evolution of money: Understanding the role of Central Bank Digital Currencies (CBDCs)*. WEF Report. <https://www.weforum.org/reports/the-evolution-of-money-understanding-the-role-of-central-bank-digital-currencies>

Unveiling the Next Frontiers in Lean manufacturing Research

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Abstract

As industries evolve within the competitive global landscape, lean manufacturing remains a vital strategy for improving efficiency, reducing waste, and streamlining operations. This research paper explores the present state of lean manufacturing and offers an in-depth examination of potential future research avenues that could shape the next era of manufacturing excellence. By analysing emerging technologies, shifting market demands, and sustainability concerns, our aim is to provide guidance to both researchers and practitioners as they navigate new areas for refinement and adaptation within lean manufacturing. Drawing from a wide range of scholarly articles, this study identifies current trends and gaps in the existing literature. Ultimately, our findings aim to contribute to the ongoing development of lean manufacturing, fostering systems that are resilient and adaptable in the ever-changing business landscape of tomorrow.

Keywords: Lean manufacturing, Research trends, Future research, Lean production

Introduction

Lean manufacturing is a structured methodology focused on refining production procedures, eradicating inefficiencies, and optimizing output efficiency to attain operational excellence. Built upon fundamental principles such as continuous enhancement, valuing human resources, and visualizing workflow, lean manufacturing aims to enhance resource utilization while delivering top-notch goods or services to clientele. By nurturing a culture of ongoing progress and empowering frontline staff to recognize and address issues, lean manufacturing enables swift adaptation to market fluctuations, minimizes lead times, and bolsters overall competitiveness. Employing strategies like

just-in-time manufacturing, total productive maintenance andkanban systems, lean manufacturing underscores the significance of reducing inventory, streamlining setup processes, and ensuring seamless workflow across production cycles. Overall, lean manufacturing acts as a strategic framework for enterprises striving to optimize operations, foster innovation, and provide value to stakeholders.

Lean manufacturing, built upon efficiency, waste minimization, and ongoing enhancement, has become a fundamental structure influencing modern production methods. With industries aiming for greater competitiveness and sustainability, grasping the present status of lean

manufacturing research is crucial. This research initiates an extensive exploration of the academic realm, aiming to reveal the complexities and fluctuations within existing knowledge.

This study offers an overview of the existing research terrain and highlights unexplored avenues and potential directions for future investigation into lean manufacturing. Its objective is to provide valuable perspectives to assist scholars, professionals, and policymakers in pushing the field forward, promoting creativity, and tackling upcoming challenges.

Statement of the problem

In today's dynamic global business environment, lean manufacturing plays a crucial role in enhancing efficiency, minimizing waste, and optimizing operations across diverse sectors. However, as industries progress, there arises a pressing need to identify and investigate forthcoming research paths in lean manufacturing to uphold its relevance and efficacy. Despite the extensive literature available on this subject, there exist gaps and unexplored areas, particularly in emerging technologies, evolving market dynamics, and sustainability concerns. Hence, the central issue revolves around uncovering these untapped opportunities and offering a thorough comprehension of the future research directions in lean manufacturing. Such insights aim to guide academics, industry professionals, and policymakers toward advancing manufacturing practices and addressing impending challenges effectively.

Objective of the study

By systematically reviewing the current literature, this study aims to identify gaps in current lean research and propose future research directions. The ultimate goal is to contribute to the advancement of lean manufacturing by paving the way for impactful and relevant research

Research Methodology

This review article is descriptive in nature which is based on secondary data. For this study, an in-depth search was performed within the Scopus database to gather pertinent publications concerning lean manufacturing. Specific inclusion and exclusion criteria were applied to ensure the retrieval of relevant information for analysis.

“Lean manufacturing” and “Lean production” were utilized as keywords, yielding 1898 documents. Due to a specified time frame, publications from 2019 to the present were chosen. Analysis of the Scopus database revealed a declining trend in lean research since 2019. The objective of this study is to anticipate future research trends in lean manufacturing, hence the selection of the past 5 years to gauge potential future scope (909 documents found). Various filters were applied to refine the results, including exclusion of irrelevant subject areas and limiting the focus to Business, Management, Accounting, and Engineering. Engineering was incorporated into the study because the majority of relevant lean manufacturing research falls within the engineering field. Only articles were considered, resulting in 289 documents. Further refinement included restricting the source type to journals and preferring articles published in English, resulting in 278 documents. Open access articles were prioritized, resulting in 79 documents for detailed review. These documents were scrutinized to identify future trends or scope in lean manufacturing, excluding works not directly related to lean principles, practices, and applications across various industries.

Out of the 79 articles retrieved from the Scopus database, only 23 articles were chosen for inclusion in the study, while others were excluded. The excluded articles did not explicitly outline future

research directions or advocate for the practical application of developed theories due to impracticality. Additionally, studies proposing the application of developed models in different industries or sectors were also disregarded.

Discussion

Lean manufacturing falls within the domain of Operations Management, yet its applications extend across diverse disciplines like Commerce, Management, and Engineering. It remains a prominent topic in academic circles, evident from the significant volume of research articles published annually in various scholarly journals. Conducting an analysis on lean manufacturing promises to unveil valuable insights into present research patterns and potential future avenues within this domain.

Alkhoraif, A., et al. (2019) highlight a scarcity of research utilizing grounded theory, ethnography, mixed methods, or action research approaches in studying lean implementation within SMEs. Moreover, they underscore the predominance of lean research in Western countries, neglecting developing nations like the Middle East and Asia. Consequently, there is a gap in comparative case studies examining lean implementation in SMEs across developed and developing countries to assess the applicability of lean tools in economies under development. They also stress the necessity for more studies within the manufacturing sector to address this research gap.

Abukhamis, F., & Abdelhadi, A. (2022) propose further exploration into the implementation of continuous improvement initiatives within non-profit organizations, utilizing Agile and lean methodologies, an area that has received relatively limited attention in research. Achibat, F. E., et al. (2023) suggest future investigations focusing on the integration of Six Sigma and lean manufacturing

practices. Additionally, research is recommended to examine the synergy between green practices and lean manufacturing, as highlighted by Bocquet, R., (2019) and Choudhary, S., et al. (2019), with an emphasis on identifying the critical success factors associated with this combination and to examine its associated social aspects.

Adeyemi, B., et al. (2021) advocate for studies exploring the compatibility between 3-D printing technology and lean manufacturing principles, along with the impact of the Internet of Things (IoT) on lean philosophies. Furthermore, Al Rahamneh, A. A., et al. (2023) and Panigrahi, S., et al. (2023) underscore the importance of conducting future studies to explore how green practices can be integrated with the adoption of Industry 4.0 technologies within the context of lean manufacturing frameworks. Ghaithan, A., et al. (2021) suggest delving into the maturity, awareness, drivers, and challenges associated with Industry 4.0 and lean technologies.

Baldawi, Z., et al. (2023) recommend future endeavors centered on the Lean Dimensions Assessment Model. Al-Hyari, K. (2020) suggests investigating lean practices and their impact on the operations of manufacturing SMEs. Almasarweh, M. S. (2020) suggests further research to evaluate the challenges faced in implementing lean accounting within manufacturing companies, taking into account cultural, technical, organizational, and economic factors. Additionally, exploring the connections between specific lean manufacturing practices and individual technologies is proposed as an area for investigation. Another potential avenue for future research is the examination of the integration of lean manufacturing and factory digitalization as a combined practice.

Buer, S. V., et al (2021) suggest that future research should focus on examining the impact of

technology on lean organizations and on the frameworks used for implementing lean principles.

Carrera, J. F., et al. (2021) propose future research endeavours on exploring the interrelationship between Corporate Social Responsibility (CSR), sustainability, and Lean practices. Castillo, C. (2022) identifies an area for future study which involves investigating the perceptions of workers before and after the implementation of lean manufacturing techniques, specifically value stream mapping (VSM), particularly within increasingly automated production environments.

Castro, F., et al. (2019) propose conducting studies to assess the impacts of implementing a lean manufacturing program on both long-term motivation and operational performance. They also recommend exploring the effectiveness of management practices aimed at motivating teams involved in lean manufacturing. Ciliberto, C., et al. (2021) advocate for future research to enhance cooperation among all stakeholders within the production chain, with particular attention to those engaged in recycling and recovery activities. Costa, F., et al. (2019) suggest investigating the perspectives of shop floor workers regarding sustainable continuous improvement practices.

Lara, A. C., et al. (2022) proposes additional research, particularly concerning the association between Just-in-Time (JIT) and Lean manufacturing practices with organizational performance across financial, operational, and environmental dimensions, as evaluated through the Triple Bottom Line (TBL) framework. They also advocate for a thorough analysis of previous studies on green lean practices and their relationship with organizational performance, again based on the TBL. Maware, C., & Parsley, D. M. (2023) recommend future research focusing on technology and its influence on Lean manufacturing. Pandey, B., et al. (2022) suggest

that researchers and practitioners should prioritize the development of standardized methods for implementing lean tools. Panigrahi, S., et al. (2023) proposes investigating the role of awareness of lean manufacturing and its significance for successful implementation across manufacturing firms.

Tanudiharjo, R., et al. (2021) propose future investigations into lean implementation within the Fast-Moving Consumer Goods (FMCG) industry, taking into account variables such as the business environment, supplier management, and financial capability. Yuik, Ch. J., et al. (2020) suggest that future research should focus on determining the priority or criticality levels of key success factors in lean manufacturing implementation across different manufacturing sectors in various states, using a large sample size. They also recommend involving shop floor employees to validate the findings.

Findings of the study

After examining the current body of literature, it becomes evident that lean manufacturing is a prominent subject within academia, with numerous authors having thoroughly explored various aspects of lean principles. While there is extensive research on lean implementation across different sectors, including case studies and empirical studies focusing on the application of specific lean tools or practices, there are still areas that require further detailed investigation.

The authors suggest various avenues for future research within the realm of lean manufacturing, emphasizing its potential integration with other concepts. One such area involves combining lean principles with sustainability initiatives, particularly incorporating green practices across different sectors. Additionally, there is scope for exploring the integration of lean methodologies

with technological advancements, such as Industry 4.0 and emerging technologies like Internet of Things, 3D printing, and robotics, to foster smart manufacturing practices. Another promising area is factory digitalization, which involves merging lean principles with technology for enhanced operational efficiency. Furthermore, opportunities exist for studying lean adoption within supply chains, its impact on Human Resource Management (HRM) practices, and its application in Lean Accounting. Additionally, the authors highlight the lack of standardized methods for implementing lean tools as a researchable area, along with the need for further studies on lean assessment models.

Conclusion

This study aimed to explore the future research prospects of lean manufacturing. The enduring principles of lean methodologies, based on waste reduction, continuous improvement, and efficiency, have demonstrated their resilience over time. Upon delving into prospective horizons, it becomes apparent that the evolving landscape of technology and sustainability will redefine the parameters of lean manufacturing. Investigating the incorporation of Industry 4.0 technologies into lean practices and examining the role of human factors in various facets of lean implementation emerge as crucial topics for future inquiry. Furthermore, the imperative of sustainability has emerged as a fundamental consideration, necessitating a shift towards environmentally conscious and socially responsible lean manufacturing practices. The primary limitation of this study lies in its reliance solely on articles published in the Scopus database, overlooking academic journals indexed in other databases such as Web of Science and Google Scholar. Future research endeavours could address this limitation by incorporating these additional databases to enhance insights into lean research.

References

1. Abukhamis, F., & Abdelhadi, A. (2022). A Critical Analysis of Agile and Lean Methodology to Fulfill the Project Management Gaps in Nonprofit Organizations (NPOs). *Applied Sciences (Switzerland)*, 12(11). Scopus. <https://doi.org/10.3390/app12115467>
2. Achibat, F. E., Lebkiri, A., Aouane, E. M., Lougraimzi, H., Berrid, N., & Maqboul, A. (2023). Analysis of the impact of six sigma and lean manufacturing on the performance of companies. *Management Systems in Production Engineering*, 31(2), 191–196. Scopus. <https://doi.org/10.2478/mspe-2023-0020>
3. Adeyemi, B., Ogbeyemi, A., & Zhang, W. (2021). Combining simple motion measurement, lean analysis technique and historical data review for countering negative labor cost variance: A case study. *International Journal of Engineering Business Management*, 13. Scopus. <https://doi.org/10.1177/18479790211023617>
4. Al-Hyari, K. (2020). Lean bundles within Jordanian manufacturing SMEs and their effect on business performance. *Problems and Perspectives in Management*, 18(2), 302–315. Scopus. [https://doi.org/10.21511/ppm.18\(2\).2020.25](https://doi.org/10.21511/ppm.18(2).2020.25)
5. Alkhoraiif, A., Rashid, H., & McLaughlin, P. (2019). Lean implementation in small and medium enterprises: Literature review. *Operations Research Perspectives*, 6. Scopus. <https://doi.org/10.1016/j.orp.2018.100089>
6. Almasarweh, M. S. (2020). The applicability of lean manufacturing methods and its impact on the performance of the Jordanian industrial companies listed in ASE. *Management Science*

- Letters*, 10(13), 3023–3032. Scopus. <https://doi.org/10.5267/j.msl.2020.5.022>
7. Al Rahamneh, A. A., Alrawashdeh, S. T., Bawaneh, A. A., Alatyat, Z., Mohammad, A., Mohammad, A. A. S., & Al-Hawary, S. I. S. (2023). The effect of digital supply chain on lean manufacturing: A structural equation modelling approach. *Uncertain Supply Chain Management*, 11(1), 391–402. Scopus. <https://doi.org/10.5267/j.uscm.2022.9.003>
 8. Baldawi, Z., Kassam, A. E. H., & Al-Zubaidi, S. S. A. (2023). Assessment of the Interrelationship and the Influence Degree of Lean Dimensions Based on Fuzzy DEMATEL. *Advances in Science and Technology Research Journal*, 17(4), 215–226. Scopus. <https://doi.org/10.12913/22998624/169575>
 9. Bocquet, R., Dubouloz, S., & Chakor, T. (2019). Lean manufacturing, Human Resource Management and Worker Health: Are there Smart Bundles of Practices along the Adoption Process? *Journal of Innovation Economics and Management*, 3(30), 113–144. Scopus. <https://doi.org/10.3917/jie.pr1.0050>
 10. Buer, S. V., Semini, M., Strandhagen, J. O., & Sgarbossa, F. (2021). The complementary effect of lean manufacturing and digitalisation on operational performance. *International Journal of Production Research*, 59(7), 1976–1992. Scopus. <https://doi.org/10.1080/00207543.2020.1790684>
 11. Carrera, J. F., Del Olmo, A. A., Cuadrado, M. R., Escudero, M. M. E., & Cuadrado, L. R. (2021). From lean 5s to 7s methodology implementing corporate social responsibility concept. *Sustainability (Switzerland)*, 13(19). Scopus. <https://doi.org/10.3390/su131910810>
 12. Castillo, C. (2022). The workers' perspective: Emotional consequences during a lean manufacturing change based on VSM analysis. *Journal of Manufacturing Technology Management*, 33(9), 19–39. Scopus. <https://doi.org/10.1108/JMTM-06-2021-0212>
 13. Castro, F., Figueiredo, P. S., Pereira-Guizzo, C., & Passos, F. U. (2019). Effect of the motivational factor on lean manufacturing performance: The case of a multinational consumer goods company. *Gestao e Producao*, 26(3). Scopus. <https://doi.org/10.1590/0104-530X4850-19>
 14. Choudhary, S., Nayak, R., Dora, M., Mishra, N., & Ghadge, A. (2019). An integrated lean and green approach for improving sustainability performance: A case study of a packaging manufacturing SME in the U.K. *Production Planning and Control*, 30(5–6), 353–368. Scopus. <https://doi.org/10.1080/09537287.2018.1501811>
 15. Ciliberto, C., Szopik-Depczyńska, K., Tarczyńska-Luniewska, M., Ruggieri, A., & Ioppolo, G. (2021). Enabling the Circular Economy transition: A sustainable lean manufacturing recipe for Industry 4.0. *Business Strategy and the Environment*, 30(7), 3255–3272. Scopus. <https://doi.org/10.1002/bse.2801>
 16. Costa, F., Lispi, L., Staudacher, A. P., Rossini, M., Kundu, K., & Cifone, F. D. (2019). How to foster Sustainable Continuous Improvement: A cause-effect relations map of Lean soft practices. *Operations Research Perspectives*, 6. Scopus. <https://doi.org/10.1016/j.orp.2018.100091>
 17. Ghaithan, A., Khan, M., Mohammed, A., & Hadidi, L. (2021). Impact of industry 4.0 and lean manufacturing on the sustainability performance of plastic and petrochemical organizations in saudiarabia. *Sustainability*

- (Switzerland), 13(20). Scopus. <https://doi.org/10.3390/su132011252>
18. Lara, A. C., Menegon, E. M. P., Sehnem, S., & Kuzma, E. (2022). Relationship between Just in Time, Lean manufacturing, and Performance Practices: A meta-analysis. *Gestao e Producao*, 29. Scopus. <https://doi.org/10.1590/1806-9649-2022v29e9021>
19. Maware, C., & Parsley, D. M. (2023). Can Industry 4.0 Assist Lean manufacturing in Attaining Sustainability over Time? Evidence from the US Organizations. *Sustainability* (Switzerland), 15(3). Scopus. <https://doi.org/10.3390/su15031962>
20. Pandey, B., Yadav, V., Chauhan, A. S., & Rathore, A. (2022). Process improvement using lean tools: A case from carpet manufacturing industry. *International Journal of Productivity and Quality Management*, 35(1), 117–142. Scopus. <https://doi.org/10.1504/IJPQM.2022.120710>
21. Panigrahi, S., Al Ghafri, K. K., Al Alyani, W. R., Ali Khan, M. W., Al Madhagy, T., & Khan, A. (2023). Lean manufacturing practices for operational and business performance: A PLS-SEM modeling analysis. *International Journal of Engineering Business Management*, 15. Scopus. <https://doi.org/10.1177/18479790221147864>
22. Tanudiharjo, R., Yun, F., Joo, J., & Arokiam, I. (2021). Investigation of factors impacting lean implementation in the Indonesian fast-moving consumer goods industry. *Operations and Supply Chain Management: An International Journal*, 162–172. <https://doi.org/10.31387/oscm0450294>
23. Yuik, Ch. J., Perumal, P. A., & Feng, Ch. J. (2020). Exploring critical success factors for the implementation of lean manufacturing in machinery and equipment SMEs. *Engineering Management in Production and Services*, 12(4), 77-91. doi: 10.2478/emj-2020-0029

Envisioning Global Sustainability via Dubai's Clean Energy Strategy 2050

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Abstract

Dubai made a name for itself as a regional and global hub for renewable energy innovation, and green hydrogen will serve as the fourth pillar in the emirate's Clean Energy Strategy 2050. Green hydrogen, generated by running renewable energy through electrolysis, is a zero-carbon substitute to fossil fuels, tackling crucial issues such as the material innovation needed to decarbonise industry, sustainable transport and energy storage. This paper explains how Dubai's Mohammed bin Rashid Al Maktoum Solar Park, the Middle East's biggest renewable energy project, is leading the way in green hydrogen production and underscores the UAE's ambitions to achieve net-zero emissions by 2050. The report explores real-world examples including pilot initiatives to incorporate hydrogen into public transport and its use in powering clean energy storage systems, showcasing UAE's pioneering role in harnessing innovative technologies. This data, benchmarked against international leaders globally, including but not limited to German and Japanese projects, shows that Dubai's transparent efforts to strategically fund green hydrogen initiatives in recent years are setting the standard for all desert-like countries and regions to follow. The study also looks at hydrogen's scalability through such sectors as aviation and maritime transport, highlighting UAE's efforts to "kill two birds with one stone"—realizing energy independence while taking on the climate crisis. While countries around the globe struggle with sustainable transitions, UAE's ingenuity and pragmatism represents an indispensable present and future for policymakers, echoing the importance of harmonizing renewable energy breakthroughs with sound, policy-led infrastructure capable of replication on a global scale. Concluding the paper is an optimistic note, that green hydrogen offers an incredible opportunity to transform the energy landscape by providing cleaner pathways to industrialization and a more sustainable future for all.

Keywords: Dubai Sustainability, Net-Zero Emissions, Renewable Energy, Energy Innovation, Green Hydrogen.

Green Hydrogen Pillar to UAE Future Clean Energy Vision

George Bernard Shaw said, "Progress is impossible without change, and those who cannot change their minds cannot change anything. Dubai, the Middle East pearl, is a perfect example

of how this mindset works, transforming from a desert land to a world innovation hub. Under its Clean Energy Vision 2050, green hydrogen lies at the epicenter of an audacious, yet pragmatic energy revolution so that by 2050, the country's energy system will be carbon free. This article will

cover how Dubai is using green hydrogen as a blueprint for the world, with implications for technology, transportation, and energy storage.

Tags: Grains in the Age of the Anthropocene

Green hydrogen, created via the electrolysis of water, powered by renewable energy, Green hydrogen, which is derived from renewable energy sources, has a key advantage over gray and blue hydrogen, which is generated from fossil fuels, as it has a sustainable way to decarbonize hard-to-abate sectors, including steel production, shipping, and aviation. Dubai's move into green hydrogen is no casual response to global trends — it is a deliberate attempt to seize the day and increase energy independence in a world that is becoming more volatile.

Global hydrogen demand is forecasted to hit 120 million metric tons by 2024, and the UAE aspires to hold a 25% share of the global hydrogen market by 2030. Dubai's Mohammed bin Rashid Al Maktoum Solar Park is already leading this effort. The plant is also home to the Middle East's first industrial-scale green hydrogen project, fully powered by solar energy. Dubai's preeminence in this area illustrates the words of Aristotle, who said, "We are what we repeatedly do. As Aristotle said, "Excellence is not an act, but a habit."

UAE's Energy Vision- Commitment towards Sustainability

Dubai's energy outlook is driven by the Clean Energy Strategy 2050, where 75% of Dubai's power will come from renewable sources. "In addition, the intermittency of solar and wind energy can be balanced today with the Green hydrogen and is part of our strategy. In a manner, the UAE's focus on carbon reduction is something it seeks to showcase on the world stage, through its hosting of COP28, at which it has also tried to portray itself as a worldwide leader in sustainability conversations.

Demonstrations of green hydrogen's co-product versatility are being conducted in pilot projects around the UAE. Hydrogen-fueled buses were trialled during Expo 2020. Additionally, hydrogen is being explored as a clean energy source for aviation, with Dubai collaborating with global aerospace leaders to design hydrogen-powered planes. These initiatives demonstrate the wisdom of Confucius, who said, "The man who moves a mountain begins by carrying away small stones."

Local & Global Implications of Green Hydrogen in Action

UAE's green hydrogen plan is a shining example of practicality and vision for arid parts of the world. With its vast solar resources, Dubai can create affordable routes to green hydrogen production that can also solve worldwide issues, like climate change and energy poverty. Globally, Germany and Japan are leading the way in hydrogen technology, paving the way for Dubai in this climate. Germany's National Hydrogen Strategy focuses on industrial-scale adoption; Japan has also invested heavily in using hydrogen society-wide by 2030. In the same spirit, Dubai's green hydrogen ecosystem brings together the best minds at the Masdar Institute and Fraunhofer Institute to overcome technical and logistical challenges.

Studies by MIT and Khalifa University in 2024 found that green hydrogen could lower global CO₂ emissions by as much as 20% if adopted on a massive scale. Given these findings, Dubai's ambition to decarbonize industries such as shipping and logistics fits nicely, in the words of Henry David Thoreau, "What you get by achieving your goals is not as important as what you become by achieving your goals."

Dubai's Clean Energy Vision 2050 and the Role of Green Hydrogen

The Mohammed bin Rashid Al Maktoum Solar Park is among the largest renewable energy projects globally and is a testament to the UAE's dedication to sustainability. Inside the solar park, Dubai opened the region's first industrial-scale green hydrogen project in collaboration with Siemens Energy. The pilot plant is groundbreaking in the Middle East in that it produces up to 20.5 kilograms of green H₂ per hour using power from the solar park. This effort embodies the philosophy of Confucius: "The man who moves a mountain begins by carrying away small stones." Piece by piece, the emirate of Dubai is paving its way toward achieving net-zero carbon emissions with investments like this.

Green hydrogen in UAE is not only an energy source but rather a multi-faceted solution to problems like energy storage, decarbonization of hard-to-abate industries, and sustainable transportation. The Dubai Electricity and Water Authority (DEWA) has already started looking at hydrogen's potential to be integrated into grid-scale energy storage systems to help mitigate the variability of energy from solar and wind sources. Here, the question emerges vividly, as in Dubai Expo 2020, break its land for hydrogen vehicles in which you can see Toyota Mirai hydrogen cars and fuel-cell buses, and have the opportunity to test to get perspective on hydrogen vehicles. Not only did this validate the practical viability of hydrogen mobility, but the project also further established Dubai as a pioneer in sustainable city transport. Those investments show the "light at the end of the tunnel" for fossil fuel-dependent areas.

Green Hydrogen's applications in decarbonizing key sectors

The Path to Decarbonizing Heavy Industries :

Green hydrogen will transform sectors long assumed to be impossible to decarbonize, including steel production, ammonia generation, and cement. In 2024, different researchers at Fraunhofer Institute pointed to a potential 95% reduction of CO₂ emissions through the substitution of fossil fuels with green hydrogen in steel production.

Sustainable Transportation : Green hydrogen can have a huge impact in open transport. Fuel cells and hydrogen: As the conversation around sustainability continues, many consumers may see electric vehicles (EVs) taking the spotlight. Dubai, for example, is partnering with Airbus on hydrogen-powered planes, with the first prototypes anticipated by 2035. The Jebel Ali Port, one of the world's busiest ports, is also eyeing hydrogen-fuelled vessels. These efforts have put new spin on the idiom "thinking outside the box" as Dubai looks to not only take the lead on land but in the air and sea as well.

Hydrogen Energy Exports : Dubai's ambitions are not limited to domestic uses ; it aspires to be a center for green hydrogen exports worldwide. With Europe and Asia increasing their hydrogen imports to meet climate targets, Dubai is in a strong position to fill this growing demand. For instance a MoU signed between the UAE and Germany 2023 to create a hydrogen supply chain In addition, Dubai is developing liquid hydrogen export terminals to enable the shipping of hydrogen to markets worldwide.

Green hydrogen lessons from around the globe: The UAE, inspired by the green hydrogen strategy of developed nations such as Germany

and Japan, is revising these policies to cater to its own geographic and climatic landscape.

Germany- a technological pioneer

Germany's National Hydrogen Strategy allocates €9 billion to the development of hydrogen projects, with great emphasis on expanding green hydrogen production and its incorporation into industrial processes. Germany has also put in a significant investment in electrolysis technology, with an outstanding 80% electrolysis efficiency not being achieved until 2024. A similar technology has been further adopted by Dubai in collaboration with Fraunhofer Institute to elevate its hydrogen production capabilities.

Japan- Building a Hydrogen Society

Japan's hydrogen strategy focuses on building an integrated hydrogen economy. Japan has proven the versatility of this clean energy; from hydrogen-powered trains to residential fuel cells. Meanwhile, with a 'society-first' approach in mind, Dubai, inspired by Japan, launched hydrogen pilot projects in residential sectors and began integrating hydrogen fuel cells to power homes in various regions. Both nations provide teachings; however the UAEs plentiful solar assets grant it an advantage resulting in reduced production expenses in contrast, to Europe and Japan.

The difficulties of expanding the use of hydrogen : Like any undertaking, in its path to being a player, in green hydrogen production. Even though the price of electrolysis is decreasing gradually green hydrogen still ends up being pricier, than fossil fuel options. MIT researchers have pointed out that producing green hydrogen costs \$ 5 to \$7 per kilogram at present while gray hydrogen production averages between \$ 0 to \$4 per kilogram.

Expanding hydrogen infrastructure, like pipelines and fuel stations requires an amount of capital investment upfront. Dubai's ongoing initiatives in hydrogen storage and transportation technologies are making strides in addressing this challenge; however sustaining funding remains essential to progress in this area.

Policy and regulations govern aspects of our lives and society.

Established rules and regulations are essential for the global trade of hydrogen to thrive successfully across borders and ensure safety standards are met effectively during transportation processes worldwide. Dubai is collaborating with agencies to create a cohesive structure that governs the trading of hydrogen globally and secures its position, in competitive markets on a worldwide scale. Despite facing these obstacles head on in Dubai's landscape of investments and strategic partnerships illustrate a powerful message that highlights the resilience and determination to overcome adversity. A true reflection of the saying "when faced with challenges the resilient rise, to the occasion."

Exploring the Environmental Benefits of Green Hydrogen Technology, in Dubai Green hydrogen has the capability to decrease Dubai's carbon emissions by 30% by the year 2030 in line, with the United Nations Sustainable Development Goals (SDGs). The utilization of hydrogen in industries will also bring about impacts on water and energy security. To illustrate benefits. Combining hydrogen with desalination facilities could revolutionize the water infrastructure, in the UAE also providing a sustainable and balanced solution to meet the demands of the country's growing population.

The green hydrogen industry in Dubai is projected to generate employment opportunities

for 42, 000 individuals by 2030 through various technical and research positions. This socio-economic uplift underscores Winston Churchill's observation: Dubai has reached its defining moment when it gets the opportunity to accomplish something extraordinary.

Technological and Economic Breakthroughs

The development of hydrogen storage methods and fuel cell technology has enabled green hydrogen to become an economically feasible energy source in Dubai. Hydrogen fuel cell vehicles have been launched alongside conventional electric vehicles as part of an effort to decrease fossil fuel dependency. By 2030 Dubai's green hydrogen export investments targeted towards Europe and Asia will potentially create \$10 billion of economic growth every year. However, significant challenges remain. Large-scale adoption requires solutions to high production costs as well as the expansion of infrastructure and technological improvements. Dubai demonstrates its capability to convert challenges into opportunities through its joint efforts with global think tanks and private-sector leaders which embodies the truth behind the saying "necessity is the mother of invention."

A Sustainability Blueprint for the World

The green hydrogen initiatives of Dubai establish a scalable and replicable framework that other countries can follow. Through renewable energy integration together with advanced technology and strategic policymaking Dubai establishes a sustainable urbanization blueprint. Saudi Arabia's NEOM project and North African nations including Morocco observe Dubai's green hydrogen model to guide their renewable energy transitions. The implications extend beyond energy production. The adoption of green hydrogen technology offers the potential to revolutionize

water desalination methods and guarantee water supply for areas suffering from extreme drought conditions. The development of hydrogen-powered industries has the potential to create thousands of green job opportunities which will support socio-economic stability. This holistic vision reflects Winston Churchill's words: "The pessimist sees difficulty in every opportunity. The optimist sees opportunity in every difficulty."

Conclusion

An Optimistic Horizon

The green hydrogen projects of Dubai represent both a technological breakthrough and a beacon of hope for a planet dealing with extraordinary environmental challenges. Dubai demonstrates a model approach through its combination of renewable energy sources with innovative technologies and strategic international partnerships. The Emirates have set an example for green hydrogen which is expected to create long-lasting impact and quote, "*Man is not the creature of circumstances. Furthermore, The Emirates is proving Benjamin Disraeli's quote right as other countries are starting to adopt aggressively the non renewable resources of energy that the are displaying. Electrolytic water splitting may be a herald of peace, prosperity, and international goodwill – all at the same time.*" With the achievement of green hydrogen, not only UAE, but all countries are provided with an opportunity to incorporate traditional resources in such a way that is sustainable and allows the globe to tackle climate change. This also reminds us that, "the best way to predict the future is to create it," which is a perspective that must always be considered. *The history of the world is full of people saying that The Arabs have done nothing, but, as Cascio once claimed: "The change you wish to see in the world, do it unto others."* Many see this change as merely adopting hydrogen

energy, *but it should primarily be viewed as the lowering of the depletion of the oceans and the pollution of water sources.*

References

1. Ahmed, M. (2024). Hydrogen Innovations in Arid Regions. Masdar Institute Press, pp. 22-45.
2. Al-Mansoori, H. (2023). Sustainable Energy Transitions in the Middle East. Khalifa University, pp. 88-101.
3. Bergman, R. (2023). "Green Hydrogen Economics." Journal of Renewable Energy Studies, 15(3), pp. 212-230.
4. Fraunhofer Institute (2024). Advancements in Electrolysis Technologies. Springer, pp. 45-60.
5. MIT Energy Initiative (2024). "Hydrogen Storage Breakthroughs." Energy Science Quarterly, 10(2), pp. 155-180.
6. Jaffe, L. (2023). "Hydrogen and Aviation." Global Energy Review, 18(1), pp. 78-95.
7. Johnson, P. (2024). The Hydrogen Economy. Oxford University Press, pp. 12-35.
8. Khalifa University (2024). "Green Hydrogen in the UAE." Regional Energy Futures, 7(2), pp. 33-50.
9. Kumar, S. (2023). "Hydrogen's Role in Decarbonization." Environmental Policy Journal, 25(3), pp. 67-84.
10. Lewis, T. (2024). Global Hydrogen Strategies. Cambridge University Press, pp. 112-140.
11. Masdar Institute (2024). Green Hydrogen in the Middle East. Wiley Press, pp. 65-92.
12. National Hydrogen Strategy (Germany, 2024). Federal Energy Research Center, pp. 14-32.
13. NEOM Project Research (2023). Hydrogen in Saudi Arabia, Vol. 2, pp. 100-120.
14. Nippon Energy Institute (2024). Hydrogen Society in Japan, Vol. 5, pp. 38-65.
15. OECD (2024). Renewable Energy in Emerging Economies. Routledge, pp. 33-58.
16. Patel, R. (2023). "Green Hydrogen in Aviation." International Journal of Aviation Studies, 12(4), pp. 144-160.
17. Solar Park Development Report (Dubai, 2024). Government of Dubai Press, pp. 22-48.
18. Thorne, C. (2024). Hydrogen and the SDGs. Palgrave Macmillan, pp. 99-123.
19. UNEP (2024). "Hydrogen's Role in Climate Action." Environment and Sustainability Journal, 22(2), pp. 66-89.

Forecasting India's Path to a \$5 Trillion Economy

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Abstract

This research paper explores India's economic growth trajectory with a focus on forecasting the timeline for achieving the \$5 trillion GDP milestone. Historical GDP data is utilized to develop a predictive model aimed at forecasting GDP milestones. Additionally, pre-pandemic and post-pandemic trends were analyzed separately to assess the economy's resilience and transitional growth patterns. The findings highlights that India's economy is on a robust upward trajectory, characterized by consistent recovery post-pandemic and a strong growth trend. The transitional growth trend line confirms the economy's resilience, indicating no permanent loss in output or demand despite challenges. The model estimates that, on average, India is expected to touch \$5 trillion in GDP at current prices by 2029-2030. To foster further innovation, these results were turned into GDP-PY - an interactive web application. This tool allows users to customize forecast horizons, visualize GDP growth, visualize Indian economy's resilience, download datasets and explore the underlying methodology. Access GDP-PY at - <https://gdp-py.streamlit.app/>.

Keywords: India GDP Forecast, Economic Growth Prediction, \$5 Trillion Economy, Time Series Analysis, Machine Learning in Economics, Open-Source Economic Tools.

Introduction

Economic forecasting has long been a cornerstone of informed decision-making, guiding policymakers, investors, and stakeholders toward effective resource allocation and planning. In recent years, with India's economy undergoing rapid transformation, questions about its trajectory and potential milestones have gained prominence. One of the most significant milestones on the horizon is India's ambition to achieve a \$5 trillion GDP—a target that symbolizes the country's growing global economic influence.

The pursuit of a \$5 trillion economy holds profound implications for India and its citizens. Reaching this milestone would signify a substantial increase in national income, potentially leading to

improved living standards, increased investments in crucial sectors like education and healthcare, and enhanced infrastructure development. A larger economy also translates to greater global influence, allowing India to play a more prominent role in international affairs and shape global economic policies. Moreover, achieving this target can boost investor confidence, attracting foreign direct investment and further fueling economic growth. It can also unlock the potential for greater social mobility and create more opportunities for a large and young population. Essentially, the \$5 trillion mark represents a stepping stone towards a more prosperous and influential India.

India possesses significant potential to achieve this ambitious target. The country boasts a large

and diverse workforce, a burgeoning middle class, and a vibrant entrepreneurial ecosystem. Furthermore, India has demonstrated remarkable resilience in the face of global economic headwinds, including the recent pandemic, showcasing its capacity for sustained growth. The government's focus on structural reforms, infrastructure development, and digitalization also provides a strong foundation for future economic expansion. However, realizing this potential requires careful planning, strategic investments, and effective policy implementation. Challenges such as income inequality, unemployment, and climate change need to be addressed to ensure inclusive and sustainable growth. This paper introduces *GDP-PY*, a tool to help users visualize the findings and to forecast India's GDP using machine learning techniques. *GDP-PY*, provides not only accurate GDP predictions but also user-friendly visualizations that make complex economic trends accessible to a broader audience. It also facilitates data exploration by offering downloadable forecasts, fostering further research and innovation.

This research also undertakes a comparative analysis of India's economic growth patterns, examining the pre- and post-pandemic periods to assess the impact of global disruptions and understand the nation's recovery trajectory. Utilizing a linear regression model, validated through rigorous empirical analysis, this study seeks to identify the key drivers of India's economic growth and provide insights into the underlying trends shaping its economic journey. The choice of a linear regression model allows for a clear and interpretable analysis of the relationships between economic variables, providing a solid foundation for understanding the factors influencing India's GDP growth. The paper also aims to present a comprehensive methodology for GDP forecasting while emphasizing the value of

open-source tools in fostering transparency and collaboration in economic research.

Objectives

1. Develop and implement a robust *predictive model* to forecast India's GDP for upcoming years.
2. Estimate the timeline for India to reach a \$5 trillion GDP at current prices.
3. Examine India's pre- and post-pandemic economic growth patterns to highlight the resilience and steady recovery of the Indian economy.
4. Create a user-friendly, open-source web application (*GDP-PY*) that allows users to explore GDP forecasts interactively, visualize trends, and download forecasted data for further analysis.
5. Evaluate the predictive performance of the model and share the methodology transparently (open-source) to foster trust and enable further innovation in economic forecasting.

Data Description

To forecast India's GDP and assess its journey toward a \$5 trillion economy, this study employs autoregressive modeling as the primary approach. Autoregression relies on the assumption that past values of a variable can predict its future values. In this context, India's GDP for a given year is estimated based on the GDP of previous years (*GDP_L1*). This motivation directed the collection of historical GDP data to ensure the reliability and accuracy of the model. The data for this analysis was sourced from the World Bank's open data platform (<https://data.worldbank.org>). This trusted repository provides comprehensive and verified economic data, making it ideal for this study. The GDP data, spanning from 1960 to 2023, was downloaded in a CSV (Comma-Separated Values) format.

	GDP	GDP_L1		GDP	GDP_L1
Year			Year		
1961	3.923244e+10	3.702988e+10	2019	2.835606e+12	2.702930e+12
1962	4.216148e+10	3.923244e+10	2020	2.674852e+12	2.835606e+12
1963	4.842192e+10	4.216148e+10	2021	3.167271e+12	2.674852e+12
1964	5.648029e+10	4.842192e+10	2022	3.353470e+12	3.167271e+12
1965	5.955611e+10	5.648029e+10	2023	3.549919e+12	3.353470e+12

Table 1: First five rows of the dataset.

Table 2: Last five rows of the dataset.

Methodology

This study employs a structured and data-driven approach to forecast India's GDP and estimate the timeline for reaching a \$5 trillion milestone. The methodology can be summarized in the following steps:

1. Data Collection and Preprocessing

Historical GDP data for India, spanning from 1960 to 2023, was collected from reliable economic databases. Data preprocessing involved handling missing values, scaling, and structuring the dataset to include lagged GDP values as predictors.

2. Model Selection

A linear regression model was selected for its simplicity and interpretability, serving as a foundational tool for time series forecasting. The model was trained to predict future GDP values using the GDP of previous years as the independent variable.

3. Forecasting

The trained model was used to forecast GDP values for a customizable range of future years. Scenarios extending to 2030 and beyond

were analyzed to identify when the GDP might reach the \$5 trillion target.

4. Model Validation

The model's performance was evaluated using historical data to compare predicted values against actual GDP values. Visualizations were created to illustrate the accuracy and limitations of the predictions.

5. Visualization and User Interaction

A web application (GDP-PY) was developed to present the findings interactively. The application includes line charts, bar charts, trend analyses, and tools for users to adjust the forecasting horizon and download forecasted data. Visit it at <https://gdp-py.streamlit.app/>.

This methodology ensures a transparent and reproducible approach, combining economic theory, statistical modeling, and innovative visualization tools to empower users in exploring India's economic trajectory.

Empirical Results

The goal of this empirical analysis is to forecast India's GDP growth trajectory and estimate the specific year in which India is likely to reach a

GDP of \$5 trillion. To do so, I estimate a linear regression function of the form

$$\text{GDP}_{(\text{next year})} = \beta_0 + \beta_1 * \text{GDP}_{(\text{previous year})}$$

The independent variable is the GDP value from the previous year, which is used to forecast

the future values. For example, if you provide the 2023 GDP value as the independent variable, the model will estimate the 2024 GDP based on the estimated intercept 9901608613.891846 and estimated slope 1.0618667912869537 .

\$5 trillion GDP by 2029-2030.

India's GDP : Past Growth and Future Projections

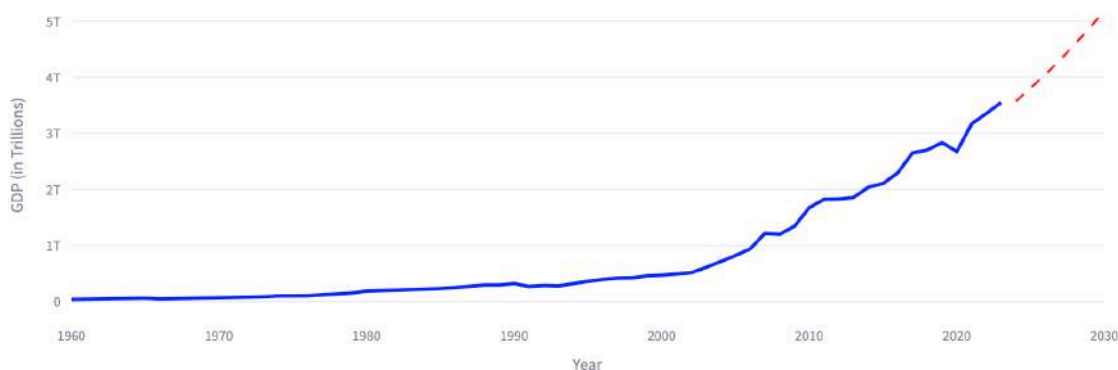


Figure 1: India's GDP growth and future projections.

The blue line represents the actual GDP values recorded over time. The red dashed line depicts the projected GDP trajectory predicted by the trained model from 2024 onwards.

GDP Forecast Over the Next 7 Years

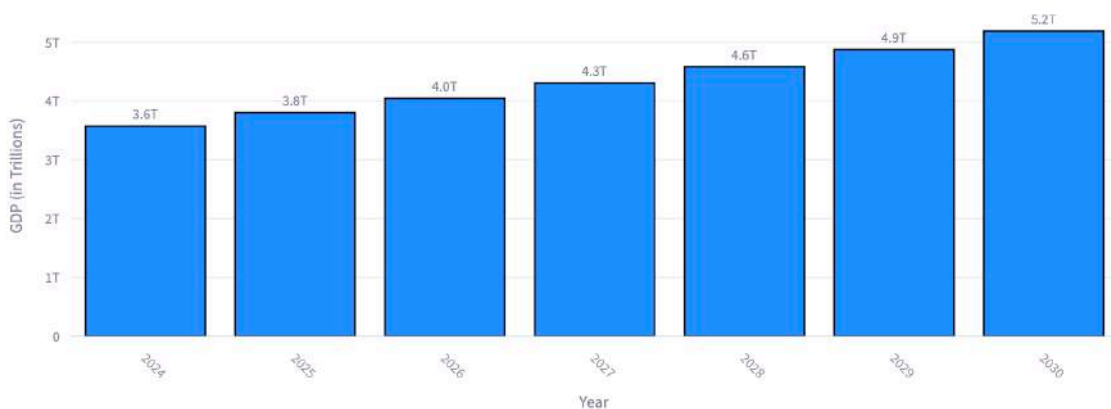


Figure 2: India's GDP forecast over the next seven years.

Each bar on the graph represents the predicted GDP value of the model for a specific year, presented in trillions of US dollars. These two visualizations demonstrate that the model projects, on average, that India will attain a GDP of approximately \$5 trillion at current prices by 2029 to 2030.

Transitional Growth Trend

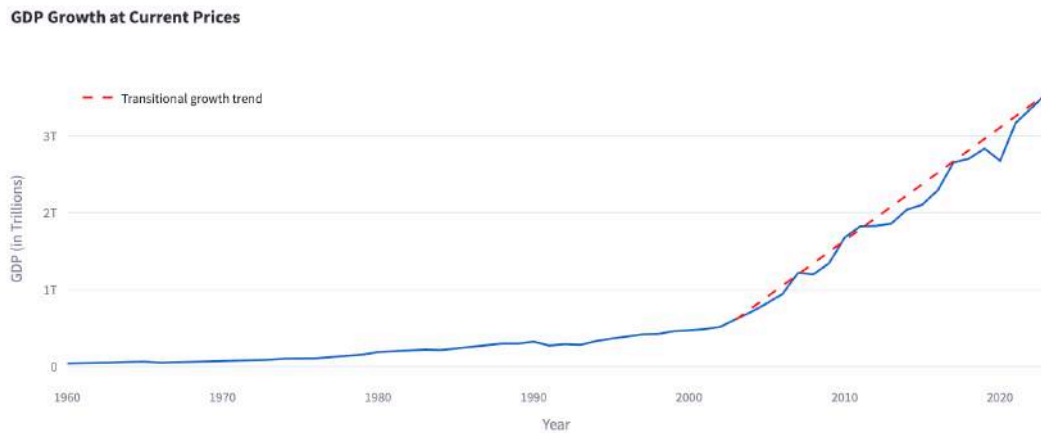


Figure 3: Plot showing India's transitional (catch-up) growth trend.

This plot visualizes India's GDP trajectory over the years, highlighting a pivotal phase of transformational economic growth. Post-1991, the GDP curve accelerates significantly, indicating India's transition into a high-growth phase driven by economic reforms, increased globalization, and technological advancements.

Remarkable Resilience

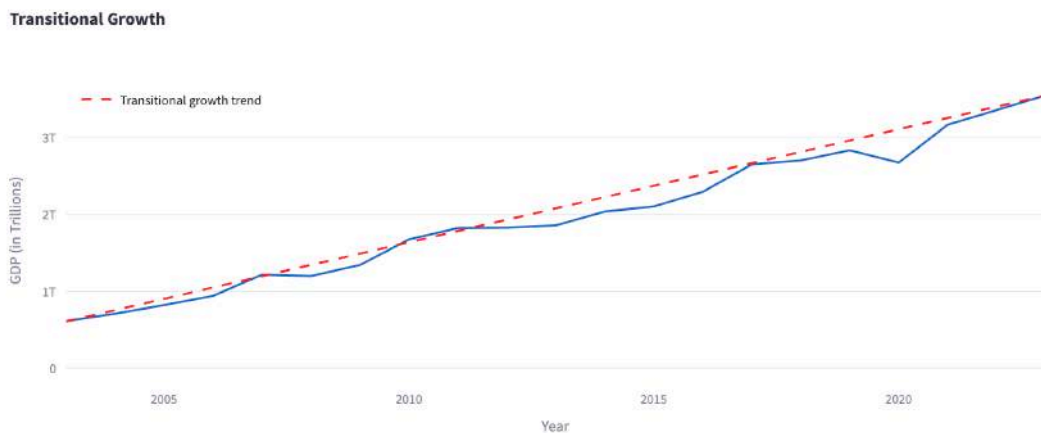


Figure 4: Visualizing Indian economy's resilience.

This plot highlights India's journey through the period of transitional growth. The blue line represents India's actual GDP, while the red dashed line illustrates the transitional growth trend, reflecting a steady upward trajectory.

Notably, the data underscores the Indian economy's ability to recover and maintain growth momentum, even in the face of significant challenges. The alignment of pre-pandemic and post-pandemic growth trends signifies that India experienced no permanent loss in demand or output, showcasing its structural strength.

Model Fitness

The predictive model was trained and evaluated using the Scikit-learn library, leveraging its robust tools for regression analysis.

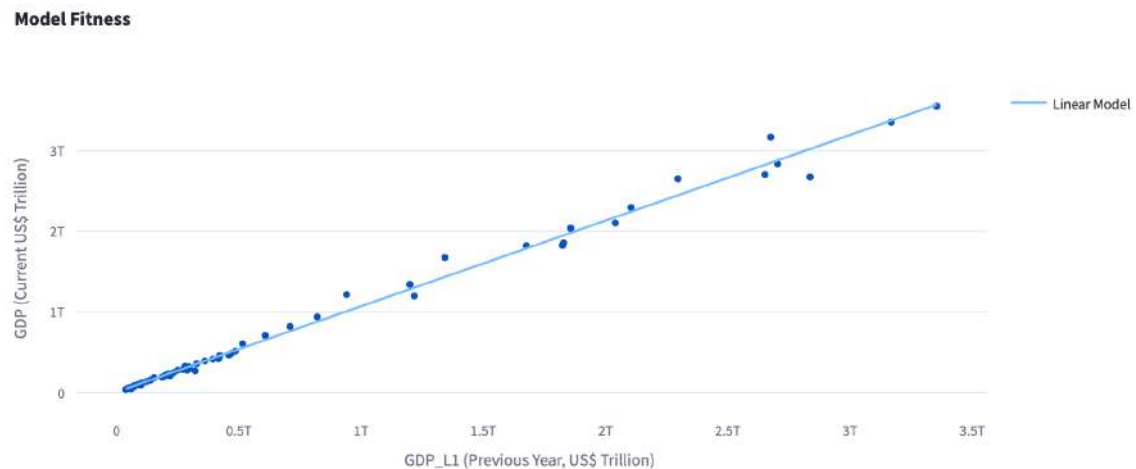


Figure 5: Model fitness and residual analysis.

Each point represents the GDP of a given year plotted against the GDP of the previous year on the x-axis. The blue line represents the linear regression model fitted to this data.

Model Performance

This graph compares the actual GDP with the GDP predicted by the model. The closer the lines, the more accurate the model's predictions.

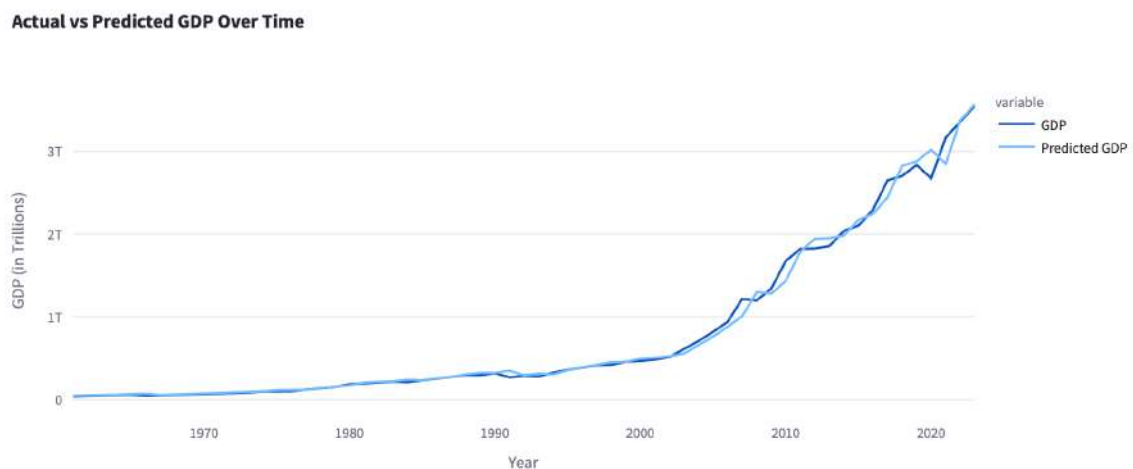


Figure 6: Visual evaluation of model performance.

This graph compares the actual GDP with the GDP predicted by the model. The closer the lines, the more accurate the model's predictions.

GDP-PY

As part of the research objectives, I built GDP-PY, an open-sourced interactive web application with a user-friendly interface designed to facilitate innovation and further economic research. It allows users to visualize India's GDP growth trends, forecast future values, and explore when the \$5 trillion milestone might be reached. It also offers customizable forecasting horizons, and downloadable datasets, making it a valuable resource for decision-makers, researchers, and enthusiasts.

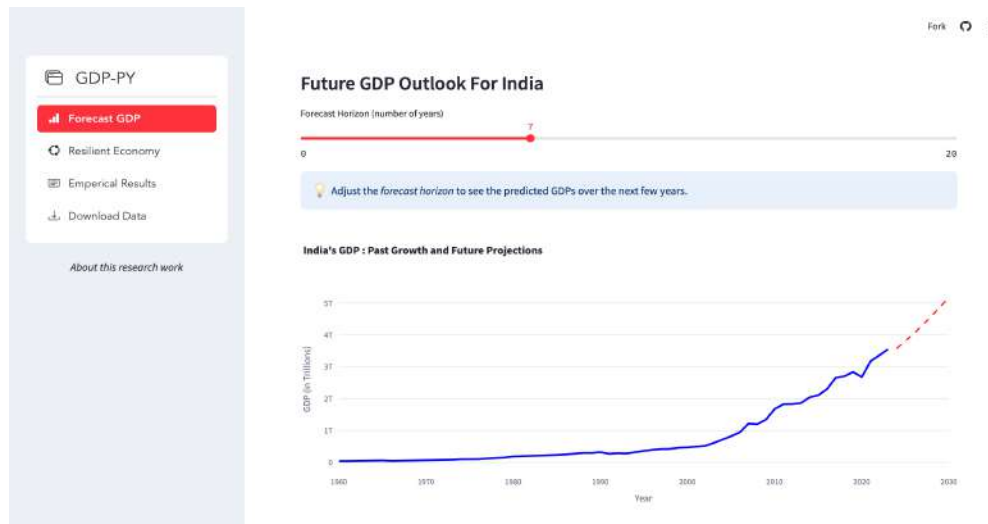


Figure 7: GDP-PY dashboard.

GDP-PY is completely open-source and accessible with just a click. Simply open your web browser and jump over to <https://gdp-py.streamlit.app/> to start exploring!

Access the Research Notebook

One of the objectives of this research work is to share the methodology transparently to foster trust and enable further innovation. Explore the full methodology and detailed steps at— https://github.com/neuraledgeai/GDP-PY/blob/main/Forecasting_India_GDP.ipynb. I have built this open-source notebook to ensure clarity and transparency, providing insights into every stage of the research process. It serves as a valuable resource for researchers and enthusiasts interested in replicating or building upon this work.

Important Note: Future Predictions and Data Updates

The predictive model used in this research is trained on data available up to 2023. As new GDP data becomes available, the model will be

retrained, potentially revising the current conclusion of India achieving a \$5 trillion GDP by 2029-2030, ensuring accuracy with the latest trends. For updated forecasts visit <https://gdp-py.streamlit.app/>.

Conclusion

The findings estimate that, on average, India is expected to touch \$5 trillion in GDP at current prices by 2029-2030. A significant contribution of this research is GDP-PY (<https://gdp-py.streamlit.app/>), an interactive web application that democratizes access to economic forecasting. The analysis of pre-pandemic and post-pandemic transitional growth trends ensures no permanent loss in demand or output, concluding that the Indian economy is firmly set in its phase of transitional growth. The predictive model used in

this research is trained on data available up to 2023. As new GDP data becomes available, the model will be retrained, potentially revising the current conclusion of India achieving a \$5 trillion GDP by 2029-2030, ensuring accuracy with the latest trends. Latest updates are available on GDP-PY. This study contributes to global economic discourse by demonstrating the applicability of machine learning and statistical models in forecasting. It empowers decision-makers, economists, and researchers to explore diverse forecasts and scenarios for informed strategic planning. Looking ahead, the methodologies employed here are adaptable to other economies, encouraging cross-country comparisons and fostering a deeper understanding of growth trajectories worldwide.

Acknowledgement

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- Matplotlib.
- Streamlit.

Finally, I would like to thank the open-source and research community for their continuous inspiration and support, which drives innovation and collaboration in pursuit of knowledge.

References

1. Abonazel, Muhamed Reda, and Ahmed Ibrahim Abd-Elfath. "Forecasting Egyptian GDP Using ARIMA Models." *Review of Economics and Finance*, 2019, <https://doi.org/10.12988/ref.2019.81023>.
2. C Hilmer, Christiana E., Michael J. Hilmer, and Chandran Sharma. *Practical Econometrics: Data Collection, Analysis and Application. Special Indian Edition*, McGraw Hill Education (India) Private Limited, 2020.
3. Kothari, C. R., and Gaurav Garg. *Research Methodology: Methods and Techniques. Fourth Multi-Colour Edition*, New Age International Publishers, 2019.
4. Majumdar, Rumki. "India Economic Outlook, October 2024." *Deloitte Insights*, 2024, <https://www2.deloitte.com/us/en/insights/economy/asia-pacific/india-economic-outlook.html>.
5. Hassan, Malik Mubasher, and Tabasum Mirza. "Using Time Series Forecasting for Analysis of GDP Growth in India." *ResearchGate*, 2021, https://www.researchgate.net/profile/TabasumMirza/publication/352447233_Using_Time_Series_Forecasting_for_Analysis_of_GDP_Growth_in_India/links/60d5b98d299bf1ea9ebb99f3/Using-Time-Series-Forecasting-for-Analysis-of-GDP-Growth-in-India.pdf.
6. Holbrook, Ryan, and Alexis Cook. "Linear Regression with Time Series." *Kaggle*, 2022, <https://www.kaggle.com/code/ryanhobbrook/linear-regression-with-time-series>.
7. Tkacz, Greg. "Neural Network Forecasting of Canadian GDP." *Journal of Forecasting*, 2001, <https://www.sciencedirect.com/science/article/abs/pii/S0169207000000637>.

Bridging the gap: Understanding the Social Exclusion of Tribal Communities in Education and Healthcare.

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Abstract

In India, tribes constitute about one-eighth of the population and are isolated from the mainstream population due to geographical location and difficult terrain. They reside in dense forests, mountains, and valleys which makes it strenuous for the normal population to reach out to them, particularly during an emergency. As a consequence of this, they are often socially excluded from public activities and developmental programs related to education and health care. Low literacy levels of the tribes foreground the exclusion of the tribal communities in terms of education and health care and this pathetic scenario is a hindrance to future growth and development of the marginalized communities. To enhance literacy levels among the tribal population, education plays a pivotal role because it also bridges the existing gap in education and health. The current study furnishes an in-depth analysis of tribes' social exclusion in education and health and sheds light on the strategies for inclusion.

Keywords: Social exclusion, literacy, healthcare, education, inclusion, scheduled tribes.

Introduction

A tribe is a social group comprised of several families, clans, or generations sharing a common language, ancestry, or culture. In the Indian context, the term “scheduled tribes” is used to classify the indigenous groups. These groups are socially and economically disadvantaged as recognized by the constitution of India. India is home to a wide variety of tribal communities with a distinctive cultural heritage and way of living. According to the 2011 census of India, there is approximately 104 million tribal population that constitutes about 8.6 % of the country's total population. More than half of the tribal population is dominated by Northeastern states of India i.e. Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Gujarat, Jharkhand, and Chhattisgarh. The tribal

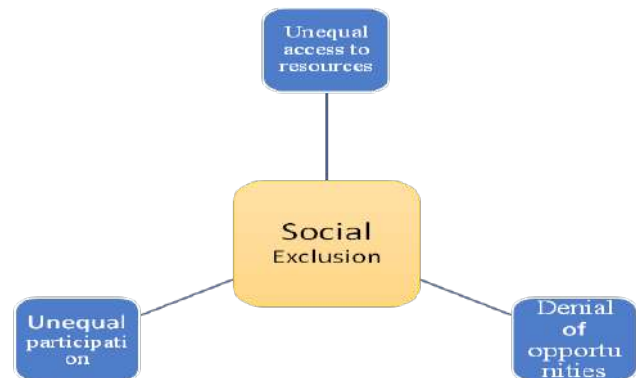
hamlets are mostly concentrated in the hills and forests, there is also a significant number that is dispersed. The tribal population lacks access to resources, health, education, employment, and income-generating opportunities are also limited. Tribal communities have different stages of socio-political, economic, and educational development. Some of the tribal communities in India have already adopted a mainstream way of living, but on the other hand, there are particularly vulnerable groups who are referred to as primitive tribes. Primitive tribes are usually food gatherers and hunters who are isolated from the normal tribes and they live in seclusion without any interaction with the mainstream population. They are often deprived of natural sources of livelihood and they are constantly uprooted from their cultural values and tradition.

Despite India's remarkable progress in development, the standard of living of the tribal population is still low, and constant efforts have been made by the government to improve their conditions. Despite the several programs implemented by the government still, a major proportion of the tribes are excluded as literates. This exclusion is more in the case of tribal women compared to men. Scheduled tribes are still excluded and discriminated in their day-to-day lives, especially in terms of education and health. Many tribal communities do not have access to land, even if they hold land, they are only marginal holdings. Though Kerala has excellent development indicators, the literacy rates, enrolment ratio, economic participation, and health awareness show that marginalized sections remain poor compared to the general population. So, there is a need for special efforts to identify the problems in the policy implementation and redesign the schemes once again for better formulation and execution. Various tribal communities are excluded from the general population in terms of class, caste, gender, ethnicity, age, location, disability, etc. They are excluded from getting new job opportunities, freedom of mobility, indigenous resources, membership in society, and citizenship in politics.

Tribes and Social Exclusion

Social exclusion can be described as a condition in which individuals are not able to participate in society. Participation is denied when the people no longer have access to material resources including education and healthcare. People have limited participation rights, and they have no voice to exercise their rights. The term social exclusion was first used by the former French Secretary of State for Social Action, Rene Lenoir in the year

1974. According to him, social exclusion refers to a situation of certain groups of people – “the mentally and the physically handicapped, suicidal people aged invalids, abused children, drug addicts, 'delinquents, single parents, multi-problem households, marginal, asocial persons and other social misfits.



“Social exclusion is a complex and multidimensional process. It involves the lack of denial of resources, rights, goods, and services and the inability to participate in the normal relationships and activities, available to the majority of people in a society, whether in economic, social, cultural, or political arenas. It affects both the quality of life of the individuals and the equity of cohesion of society as a whole” (Levitas & others, 1996). The tribal communities of Kerala are excluded from accessing and benefiting from the fruits of development. Tribal women are more marginalized and neglected than tribal men despite their multiple roles in the household. Tribal women are excluded from the mainstream knowledge systems and market sphere, and their limited access and control over the economic resources affects the overall growth and development of the tribal communities. The

1. A delinquent is a person who is usually young and regularly breaks the law or does something immoral.

key to the growth and development of tribal communities involves equal participation and promotion of women's rights. Social exclusion is a broader and more dynamic concept depending upon people's instant conditions. Thus, social exclusion in general has the following characteristics:

1. Impotence to take part in socio economic activities.
1. Isolated from the so-called mainstream population.
2. Distance and isolation from major mechanisms that deal with the production or distribution of economic resources.

In Indian tribal communities' the patriarchal system still prevails which ultimately leads to gender discrimination and marginalization of women. Tribal women suffer the most from gender inequality and they also face challenges in getting a decent life especially due to their poor economic and social conditions, poverty, unemployment, social barriers, and poor health status. The participation of women in community activities is very low among the tribal population. The majority of the tribal women don't have an income and they live in extreme poverty. The status of the tribal women in terms of education, health, and work is poor compared to males. Socio economic class system also plays a prominent role in the exclusion of tribal communities. Indian tribes are one of the most excluded groups. The assignment of occupations is considered socially inferior with low societal status for those who engaged in that.

The implementation of the Land Acquisition Act, of 1894 affected the tribal population to a great extent. Under this act, numerous tribal lands have been acquired for the construction of dams, mining projects, industrial complexes, and many more. They continue to face the acquisition of land

and it is one of the most significant problems faced by tribals these days. With the advent of the 'New Economic Policy', the exclusion process has gained momentum and most of the Indigenous resources were exploited and overutilized. The issues of social exclusion and discrimination of tribal communities have a special place in the Indian context, where scheduled tribes constitute nearly one-eighth of the total Indian population. Their progress in terms of attaining higher levels of growth is much slower than that of the other social groups.

Social exclusion of tribes in education

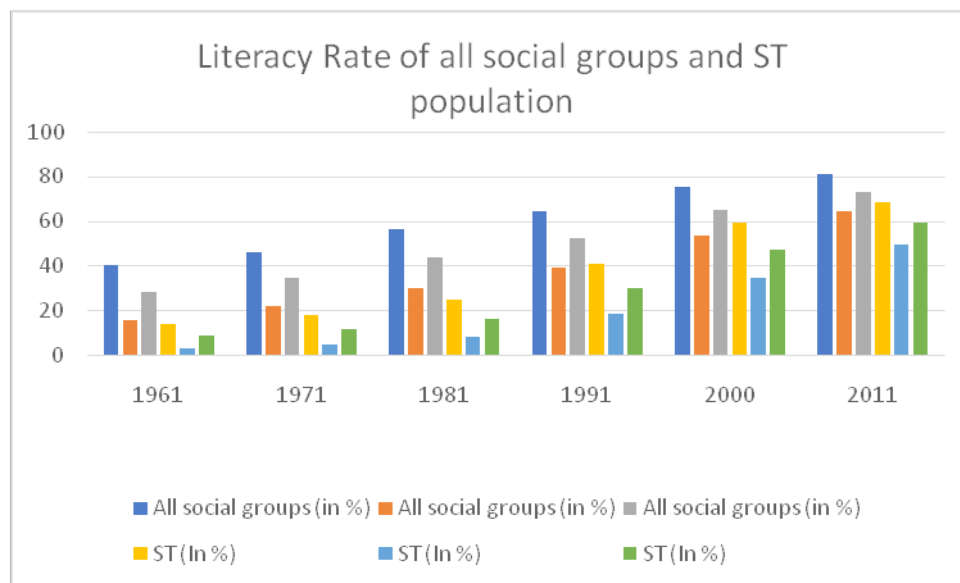
Educational exclusion represents barriers to social and economic development, particularly among the vulnerable population. Education is a fundamental right and a significant factor in determining growth, enhancing opportunities, and breaking the vicious cycle of poverty. In India, the educational status of the tribes is low which is reflected in low literacy levels, low enrolment, and higher dropouts. Tribes face a lot of barriers to accessing benefits from education. Low financial status is one of the major reasons why tribal girls are not participating in education. The backward communities in India face gender disparities, low literacy levels, and child labour, which are known to be the prevailing barriers that exist in the educational system. In certain Indian tribal communities, women are still not allowed to receive education because people believe that educated women might question traditional gender roles. The following major trends;

- Tribes have a low literacy rate compared to the mainstream population as well as the scheduled caste population.
- Compared to the males, the literacy rate of the females is much lower.

Table 1. Literacy rate of all social groups and ST population (1961-2011)

Year	All social groups (in %)			ST (In %)		
	Males	Females	Total	Male	Female	Total
1961	40.4	15.35	28.3	13.83	3.16	8.53
1971	45.96	21.97	34.45	17.63	4.85	11.30
1981	56.38	29.76	43.57	24.52	8.04	16.35
1991	64.13	39.29	52.21	40.65	18.19	29.60
2000	75.26	53.67	64.84	59.17	34.76	47.10
2011	80.89	64.64	72.99	68.53	49.35	58.96

Source: Ministry of Tribal Affairs Report, 2013, Government of India



Source: Ministry of Tribal Affairs Report, 2013, Government of India

Table one displays the level of literacy of different social groups, including the tribal people, in India for each decade. In the year 1961, the literacy rates of the tribes were the lowest than other social groups. The literacy rate of the females was pathetic compared to males. The year 1971 shows a little improvement in the literacy level of tribes but among the females, there is not much of a significant improvement. 1981 was satisfactory compared to the last two decades. A remarkable improvement was noticed during the last three decades 1991-2011, when the literacy level of the tribes increased considerably in comparison to the other categories. Female literacy also increased

drastically compared to male tribes. Though the literacy rates of the tribes have shown an increasing trend for the past few decades, there is still a wide disparity in the literacy levels between tribal women and men. According to *Nayak et al., 2020* the Indian government provided assistance to tribal people by giving them chances for education, but most of the tribes cannot read or write. They belong to poor families who struggle to meet their basic needs and cannot afford to send their kids to school. It's evident from the discussion that when the tribal girls grow the enrolment rates eventually drop off. Poverty and hunger are the two main prominent reasons why tribals do not

participate in education. Even though the Indian constitution provides free universal education, this does not include the cost of textbooks, uniforms, travel expenses, and meals. This creates a burden to most of the tribal families and enrolling their children in higher education turns luxury to them.

Some of the reasons for educational exclusion among the tribes are:

- Geographical isolation is one of the primary factors responsible for attaining education for the tribal communities. Tribal hamlets are often located in hills and mountains which makes it difficult to establish schools and colleges.
- Patriarchal norms play a significant role in the education of tribal women. The tribal families often prioritize the education for boys over girls thereby limiting educational opportunities for girls.
- Early marriage of the girls also hampers the tribal women from attending school, as they are bound to take on domestic responsibilities.
- There are cultural and linguistic barriers that affect educational exclusion. Many tribal communities have a different dialect and language that is different from the normal language used for education. This language barrier can act as a hindrance to attaining education and also alienates them from the educational system.
- Traditional and cultural practices can also hamper the tribal communities from seeking education, especially in remote areas.
- Most of the tribal families struggle with poverty. Due to a lack of financial resources, they struggle to afford school fees, uniforms, etc.
- Limited resources, lack of skilled teachers, and poor educational infrastructure can hurt

educational outcomes, especially for marginalized groups like tribal women.

- There is discrimination and bias within the educational system that leads to educational exclusion among the tribe. The teachers and peers can have a biased approach towards tribal children, leading to an adverse learning environment. This discrimination can affect their self-esteem and academic performance which have a negative impact on the learning outcomes.

Strategies for inclusion of tribes in education

- Opening up new schools in tribal communities and appointing new teachers can enhance the educational status of the tribal communities.
- Bringing changes in the syllabus and extracurricular activities can attract tribal children thereby decreasing the rate of dropouts.
- For infrastructure development, adequate fund allocation is required. Providing basic facilities like toilets and sanitation facilities should be mandatory in schools to reduce dropout rates.
- Extra incentives should be provided for the teachers who work hard to reduce the dropout rates.
- Stringent action should be undertaken if the teachers fail to fulfil their duties. There should be a proper monitoring.
- Poverty is one of the significant factors that acts as a barrier in seeking education. To tackle this situation, development programs should be implemented effectively in tribal communities.
- Anganwadi centres and childcare centres should be strengthened to reduce dropout rates among the tribal children.

Exclusion of tribes with reference to healthcare

Social exclusion with reference healthcare is reflected in marginalized communities because of their caste, culture, and language. They are excluded from the mainstream population from accessing health benefits and opportunities. Despite the implementation of policies, scheduled tribes are still identified as marginalized groups. Nonavailability of land, backwardness, poverty, mortality rates, and dropouts from schools and colleges are higher among the tribal communities which have a significant impact on their health. The disparities in health outcomes are inevitable among the Indigenous population since the exclusion of social and economic opportunities varies in nature. The health of the tribal communities remains an unsolved problem these

days. Social exclusion in terms of health is ingrained in the caste system and it denies the health rights of the vulnerable groups. Women are often discriminated against within the excluded groups and they are more deprived in terms of health. Because of their low literacy levels, they are unaware of their healthcare facilities. Traditional health beliefs and cultural practices have a significant effect on their health and health behaviour. According to Mohindra et al (2006), a higher prevalence of poor health outcomes was found among scheduled castes, scheduled tribes, and other backward classes. Various studies revealed that tribal children are mostly affected by malnutrition, particularly in the states of Jharkhand, Bihar, Madhya Pradesh, West Bengal, and Odisha.

Table 2. Percentage of early childhood mortality rates

Caste groups	Infant mortality rate	Neonatal Mortality rate	Under-five mortality rate
ST	41.6	28.8	50.3
Non-ST	34.4	24.5	40.9

Source: National Family Health Survey -5

According to the table given below the IMR among the scheduled tribes is 41.6% which is comparatively higher than the non-ST population i.e. 34.4%. Among the other social indicators infant mortality has been higher among scheduled tribes over the past few years. There is only a substantial difference in the neonatal mortality rate between tribes and nontribal. Different studies conducted in India have revealed that a baby born into a tribal family is more likely to die during the first few weeks of life than a baby born into a non-tribal family. This huge gap is because of the

increased health-related vulnerabilities of the tribal population. Under-five mortality rates are also higher among the tribal population reflecting the incidence of malnutrition and anemia among tribal children. NFHS survey reported that one out of nine children die before the age of five and most of the deaths are from scheduled tribes. Implementation of a sound healthcare system for the tribal population by improving the infrastructural facilities and access to quality healthcare services can reduce infant, neonatal, and under-five mortality rates to a large extent.

Table 3. Percentage of anemia among children and Adults

Anemia among children and adults	ST	Non-ST
All women age 15-19 years who are anemic	67.0	58.3
All women age 15-49 years who are anemic	64.6	56.2
Children age 6-59 months who are anemic	73.9	67.4
Men age 15-19 years who are anemic	41.5	29.9
Men age 15-49 years who are anemic	33.7	23.9
Non pregnant women age 15-49 years who were anemic	64.8	56.4
Pregnant women age 15-49 years who were anemic	59.3	51.3

Source: National Family Health Survey-5

The table above shows the prevalence of anaemia among the tribal and non-tribal populations according to NFHS survey-5. The difference in anaemia rates is significant between tribal and non-tribal communities. Most people in tribal areas in India have anaemia which shows their health status. Anaemia among the children who were between 6-59 months was the highest which is 73.9%. Anaemia was common among women between 15-19 years comprising 67%. Pregnant women also suffer from anaemia due to a decrease in the levels of haemoglobin. To avoid this, they are advised to take iron folic tablets during the pregnancy period. Even men in tribal areas are affected by anaemia, they need to take in extra calories of nutritious food to be healthy and fit.

Reasons for exclusion of tribes in health care

Some of the reasons why tribes are excluded from health care are elucidated below:

- One of the significant causes of the exclusion of tribes in the healthcare sector is the dominance of upper-class communities. When it comes to healthcare, the scheduled communities are often excluded from availing health care and health benefits.

- Difficult terrain and geographical barriers often hamper the scheduled tribes from seeking health care services during emergencies.
- The scheduled tribes face the problem of mobility among the mainstream population, which makes them more deprived of seeking healthcare.
- They are also excluded in terms of gender, sexuality, traditional norms, ethnicity, and race which makes them timid and reluctant to avail health care.
- Tribes often face communication problems because of language barriers. Because of this, they are often discriminated in hospitals by medical professionals and nurses.
- Tribes have their traditional ways of treating their diseases and this acts as a hindrance to the doctors and medical staff to make them aware of the modern medicines and treatments.
- Lack of proper health infrastructure and faulty government policies which are incapable of establishing equitable access to the health care system.

Strategies for inclusion of tribes in healthcare

- Encourage active participation of tribal population in decision-making processes related

to health care, this helps in accessing the health care services without hesitation.

- Implementation of health care policies with adequate funding for addressing the needs of the tribal population should be initiated.
- Enhancing mobile health services to reach remote and inaccessible tribal areas to provide adequate health services should be prioritized.
- Develop healthcare models that help in integrating tribal medicine with modern medicine since this helps in connecting with the tribal communities and knowing their demand for healthcare.
- Enhancing the literacy levels of the tribes helps in getting awareness about health and healthcare services. Educating the tribes is significant to avoid exclusion the society in terms of health and education.
- Providing awareness about healthcare schemes and policies would help them to participate in various schemes and policies which eventually have a positive impact on the healthcare outcomes.
- Tribal Women should be encouraged more for availing services from healthcare centres since they represent the vulnerable section of the population. Pregnant mothers should be informed about the before and after care about pregnancy to avoid further complications.
- Asha workers and caretakers should monitor the health of infants and children under 5 years of age to make sure that they are not suffering from malnutrition or anaemia.

Conclusion

The study gives insight into the social exclusion of tribes in education and healthcare. There are wide disparities that exist between health and

education concerning tribal communities in India. Although the researches have spent a lot of time studying about social exclusion, the phenomenon of social exclusion among tribal communities and other marginalized communities still exists. There should be strategies for the inclusion of these communities to make them participate in all social activities and this will avoid exclusion and discrimination in the future.

References

1. Mohindra, K.S., Haddad, S. and Narayana, D. (2006). 'Women's health in a rural community in Kerala, India: do caste and socioeconomic position matter?' *Journal Epidemiological Community Health*, Vol 60pp 1020–1026. Doi: 10.1136/jech.2006.047647.
2. National Family Health Survey 5 (2021). International Institute for population Sciences, Mumbai and Macro International.
3. Popay, J., Etheline, E., Johnston, H. and Laetitia, R. (2006). 'Social Exclusion Knowledge Network (SEKN) Scoping of SEKN and proposed approach'. Submitted to the Commission on Social Determinants of Health World Health Organisation by The Central Co-ordinating Hub for the SEKN, Lancaster University, Bailrigg, Lancaster, UK.
4. Balgir, R.S. (2004a). 'Tribal health problems, diseases Burden and Ameliorative Challenges in Tribal Communities with special Emphasis on Tribes of Orissa', *Proceeding of National Symposium on Tribal Health*, pp 161-176.
5. Sen, A. (2000). 'Social Exclusion: Concept, Application, and Scrutiny', *Asian Development Bank Working Paper Published by Asian Development Bank, Manila, Philippines*.
6. Thorat, S. and Louis, P. (2003). 'Exclusion and Poverty in India: Scheduled Castes, Tribals and Muslims', *overview paper, India: DFID*.

7. Nayak, S. (2020). The paradox of education: Stereotyping equality of the scheduled tribes in Odisha. In *Social Inclusion and Education in India* (pp. 117-133). Routledge India.
8. Levitas, R. (1996). The concept of social exclusion and the new Durkheimian hegemony. *Critical social policy*, 16(46), 5-20
9. Coalter, F. (2023). The attractive ambiguity of social exclusion. *Handbook of Sport and International Development*, 162.
10. Ministry of tribal affairs twenty fifth report.
11. Sonowal, C. J. (2008). Indian tribes and issue of social inclusion and exclusion. *Studies of Tribes and Tribals*, 6(2), 123-134.
12. Thakur, S. (2012). Issue of social inclusion and exclusion of Indian tribes. *International Journal on Arts, Management and Humanities*, 1(1), 14-19.
13. Subramanyam, V. (2020). Social Exclusion, Inclusion, Integration and Development of Tribes in India: Anthropological Holistic Perspective. *International Journal of Arts Humanities and Social Sciences Studies*, 5, 67-78.
14. Nayar, K. R. (2007). Social exclusion, caste & health: a review based on the social determinant's framework. *Indian Journal of Medical Research*, 126(4), 355-363.
15. Madane, U. (2016). Social Exclusion and Inclusion of De-Notified, Nomadic, and Semi-Nomadic Tribes in India. *Asian Journal of Research in Social Sciences and Humanities*, 6(9), 1726-1736.
16. Søreide, K. N. (2013). Tribal marginalization in India: Social exclusion and protective law. *CMI Brief*.

Women Workers in the Tea Plantation: A Study of Ponmudi Estate

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Abstract

India is the world's second-largest producer of tea. This industry gives regular and permanent work for around 1.3 million men and women and provides temporary employment to even more people. Plucking of tea leaves is the most important job on a tea plantation. The process of tea picking is done by carefully snapping off the tender shoot between the thumb and first finger. In order to get the highest concentration of the flavor, a bud and two leaves below it are plucked by the workers, especially women workers. Women constitute over 50 percent of the tea plantations. The present study examines the job conditions and nature of work of women plantation workers and analyses women workers' socio-economic life in tea plantations at Ponmudi tea estate. The investigation indicated that the majority of the female workers of the Ponmudi tea estate are not satisfied with the working and living conditions. But in most cases, they were not equally acknowledged as compared with male workers.

Keywords: Plantation. Job satisfaction, Working conditions, Tea picking. Welfare measures

Introduction

Tea is grown in Kerala in the districts of Idukki, Wayanad, Pathanamthitta, Thiruvananthapuram, Malappuram, and Palakkad. Amongst these districts, Idukki is the hub of tea production. The productive activities of tea workers include tea picking, fertilization application, weeding, pruning, pesticide application, and control of pests and diseases. Plucking tea leaves is the most important job in a tea plantation. The process of tea picking is done by carefully snapping off the tender shoot between the thumb and first finger. To get the highest concentration of the flavor, a bud and two leaves below it are plucked by the workers, especially women workers. Women constitute over 50 percent of the tea plantations. Previously, women were regarded as optimal tea leaf pickers due to their gender-specific traits, such as delicate hands, rapid harvesting capabilities, and high productivity levels.

But nowadays despite the availability of mechanical cutters, very few men pick tea leaves since it is a tedious process. However, women continue to encounter severe discrimination. Women's representation in trade unions is very limited and the trade unions are weak. Tea plantation labourer's daily wage in Kerala is Rs.301 and this wage is provided to the labourers if they pick twenty-eight kilograms otherwise their wage is reduced. Rent for their house (laayams), water, electricity, fuel wood, medicines, and other expenses are deducted from this minimal daily wage. Workers also work overtime during the tea-picking season to earn more money. Women laborers fulfill double responsibilities, first is a productive role necessary for generating income to support the family, and second includes domestic tasks such as cooking, childcare, education, health, and elder care. Even though women are the main

factor in the tea plantation sector, their representation in political parties or trade unions is very little to our liking.

This study seeks to delineate the gender roles of female plantation laborers in tea gardens, the challenges to their livelihoods, and the socio-economic disadvantages they encounter. The tea plantation's women workers were equally skilled and more competent than men. However, in most instances, they were not equally recognized. The study of tea plantation workers especially the women workers may eventually lead to their improvement in different aspects of life as a whole. Thus, this study "women plantation labourers of tea gardens in Ponmudi Tea Estate is relevant.

Objectives of the Study

1. To analyze the job conditions and nature of work of women plantation workers.
2. To examine the socio-economic life of the women workers in the tea plantation sector of Kerala.

Methodology of the Study

This research employs both primary and secondary data. Primary data were gathered utilizing pre-drafted as well as pre-tested interview schedules from 30 female workers at the Ponmudi tea estate. Secondary data has been used to examine trends in the plantation crops' area, production, export revenue, and employment potential.

Ponmudi Tea Estate

The Ponmudi Tea Estate is a scenic plantation located in the Ponmudi region of Thiruvananthapuram, Kerala. The estate was established during British colonial rule and remains a popular tourist destination. It is located approximately 50km from the capital city of Thiruvananthapuram. This estate spans 650 acres

and is surrounded by lush reserve forests. Mangosteen, avocado, nutmeg, and orange trees can be found in the estate's magnificent orchard. In 1900, the Ponmudi Tea and Rubber Company Ltd. was established. There were roughly 200 acres of rubber and 1510 acres of tea planted at the three estates in the area in January 1915. Each of the three sites had a tea factory, and the output was transported through the ports of Tuticorin and Kochi under the company's brand for sale in London. The registered office of the company was located in London at 4 Lloyd's Avenue.

The impact of women's employment on their socioeconomic lives is the subject of this study. It investigates working conditions and women worker's job satisfaction. 25 female workers of Ponmudi Tea Plantation were sampled in Ponmudi, Trivandrum District are taken for the study. This study reveals the real picture of female plantation workers' socio-economic conditions and problems faced by them. It also provides insights about the areas for improvement of their working and living conditions.

Table.1 Age wise Distribution

Age	Frequency	Percentage
20-30	4	12
31-40	18	60
41-50	7	24
51 and above	1	4
Total	30	100

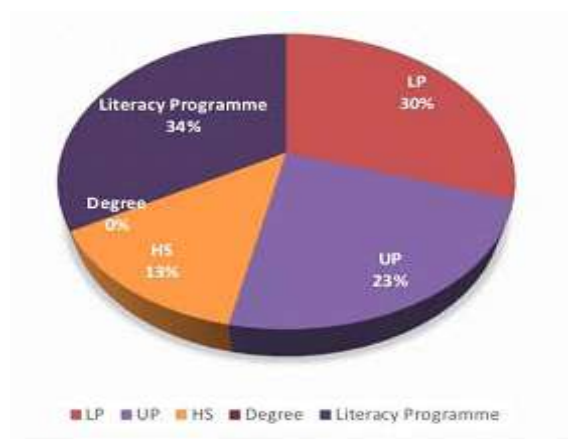
Source: Primary Data

The sample's age distribution, as shown in Table 1.1. indicates that 60 percent of the sample is in the 31 -40 age range. 24 percent of the sample is in the age range of 41-50. 12 percent of the sample is in the 20-30 age group, while 4 percent is in the above 51 age group.

1 able.2 Marital status

Marital Status	Frequency	Percentage
Married	27	81
Unmarried	3	9
Total	30	100

Source: Primary Data

Figure.1 Educational Status

From the figure.1, it is evident that 30 percent of workers have completed primary education and 23 percent have secondary level education. Only 13 percent have completed high school, and nobody has a college degree. Through the Literacy Campaign, 34 percent of people receive education. Their lack of education has also resulted in a lack of exposure to public knowledge. They are vulnerable to exploitation and are still ignorant of their rights and the laws and practices in place.

Table.3 Housing Facilities

House provided by	Percentage of housing facilities
Management	76
Owned	4.3
Rent	12
Other	7.7

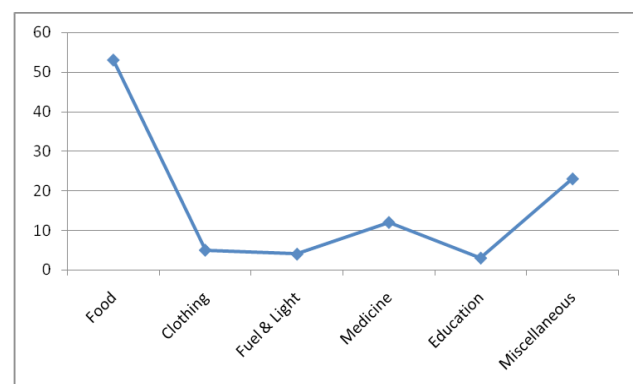
Source: Primary Data

In tea plantations, 76 percent of the workers are housed by the management. 4.3 percent of the respondents have owned a house while 12 percent of them have lived in rented houses and 7.7 percent of them are not included in any of these categories. The Plantations Labour Act of 1951 requires estates to provide housing for their workers. 33.4 percent of the tea plantation workers live in thatched homes without access to electricity, water, or restrooms. 12.8 percent of female plantation laborers live in thatched homes with running water, electricity, and a bathroom. Although 14.3 percent of the workers on tea estates have tiled or concrete homes with electricity, water, and bathrooms, 39.4 percent of the workers have tiled or concrete homes without these amenities.

Table. 4 Consumption Pattern of Women Workers in Plantations

Item	Percentage
Food	53
Clothing	5
Fuel & Light	4
Medicine	12
Education	3
Miscellaneous	23

Source: Primary Data

Figure .2 Consumption Pattern of Women Workers

The expenditure on different consumables is shown in the Table.4 and figure.2. On tea plantations, women workers spend 53 percent of their income on food. 5 percent of these workers spend money on clothes. Since food takes up a large portion of money, clothing expenses are lower. In houses on tea plantations, fuel, and light account for 4 percent of expenses. They all get their fuel from neighboring locations or forests. 3 percent goes toward education, while 12 percent goes toward medication. In tea plantations, miscellaneous expenses make up 23 percent of total spending.

Table.5 Consumption of Nutrients

Item	Daily	Weekly	Monthly
Meat	5	1	0
Fish	12	3	0
Egg	5	1	0
Vegetables	30	7	1
Milk	13	3	0
Cereals	40	10	2

Source: Primary Data

Meat, fish, eggs, milk, and other nutrients are consumed very infrequently in plantations, according to the data. The basic food that all female workers eat is cereal, such as rice and wheat. Their families' poor nutritional state is demonstrated by the poor quality of the food they consume.

Table 6 Sanitation and Hygiene Condition

Nature of toilets	Percentage of women workers
Open space	15
Community toilets	67.6
Public toilets	4.3
Private owned	13.1

Source: Primary Data

The availability of restrooms for female plantation workers is detailed in Table 4.8. 15 percent of female workers rely on public restrooms. 66 percent of them utilize estate-owned general or community restrooms.

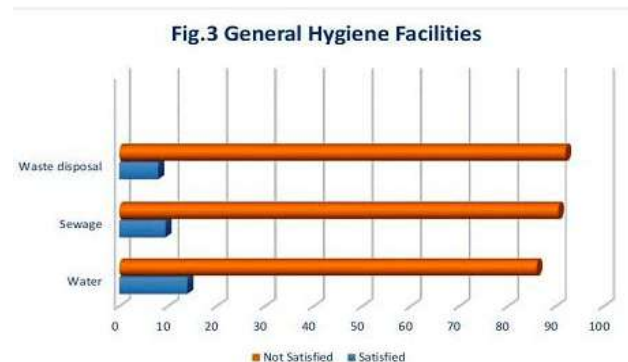


Figure # illustrates the pattern of disposing of solid and water waste as well as the water supply for female workers. Of these, 90.5 percent are dissatisfied with the current amenities, while only 9.5 percent are satisfied with the sewage facilities. Just 14 percent of them have access to enough water, whether from rivers, wells, or tube wells. 86 percent of female workers rely on wells and ponds, which dry up in the summer. 92 percent of female workers are dissatisfied with the waste disposal facilities, compared to 8 percent who are satisfied.

Table.7 Membership in Organizations

Organisation	Percentage of women workers
Women's Club	2
Cultural Organizations	6
Trade Union	88
Others	4

Source: Primary Data

The table.7 and figure make it evident that barely 2 percent of these ladies belong to any kind of women's group. Just 6 percent of people participate in cultural organizations. 4 percent don't belong to any organization. One notable aspect of the plantations is that, in comparison to other industries, this sector has a higher rate of trade union membership. According to the table,

88 percent of the female workers belong to a union. They therefore participate in political activities at a higher rate than any other workers in the economy. The general level of awareness among female plantation workers is inadequate. The Quality of Working Life (QWL) is negatively impacted.

Table.8 Job Satisfaction among Women Workers

	Factors	Satisfied	Neutral	Dissatisfied
i.	Hours of Work	2	65	33
ii.	Amount of Wage	0	6	94
iii.	Working Place	0	29.17	70.83
iv.	Quality of Work	0	35	65
V.	Medical Aid	0	3.7	96.3
vi.	Leave	0	2	98
vii.	Job security	83.4	125	4.1
viii.	Leisure	0	47	53
ix.	Child Care Facilities	0	5	95
X.	Provision of amenities	0	25	75
xi.	Transportation Facilities	12.33	49.27	38.4
xii.	Present Job	10	40	50
xiii.	Management	2	18.67	79.33

Source: Primary Data

The table.8 make it abundantly evident that the majority of workers are dissatisfied with the current state of the few medical facilities. Satisfaction of workers with job security is 83.4 percent. However, because 53 percent of them are discontented, their attitudes toward leisure time differed. Their homes are at least 1.5km away from the elevated areas where they occasionally operate. As a result, they believe the interval time is too short to leave and return. Regarding leisure time, those who have elderly and sick family members

at home have similar views. The facilities that are offered to these workers do not satisfy them. The administration does provide lodging amenities; however, the restrooms and kitchen are inadequate. The working women are not given access to daycare or creche facilities by the management. Among workers, half are dissatisfied with their current positions. Their inadequate level of education prevents them from obtaining a better position. The current working hours are often unsatisfactory to female workers. Of the sample

workers, 94 percent believe their pay is inadequate for the work they do. There are no restrooms or rest areas, which makes the workers dissatisfied with the amenities offered at their workplaces. The transportation options accessible to them for getting to work provide challenges for 38.4 percent of the women. The quality of the work is not up to the respondents' standards. Merely 2 percent are content with the management.

Conclusion

The study would bring out a clear picture of the situation of laborers employed in the tea estates. It is evident in the study that most of the respondents are within the age group of 31 -40. The majority of the population (75 percent) is female, followed by males (20 percent), and no third-gender individuals are represented. The majority of the population 81 percent are married and 24 percent are unmarried. In total respondents only 30 percent of the workers have primary education, 23 percent have secondary level education, 13 percent have been to high school and no one has a college education. 34 percent are educated through the Literacy Campaign. 76 percent of the respondents have housing facilities provided by management, 4.3 percent of the respondents have owned houses while 12 percent of them have lived in rented houses and 7.7 percent of them are not included in any of these categories. 34 percent of the tea plantation workers live in thatched homes without access to electricity, water, or restrooms. 12.8 percent of female plantation laborers live in thatched homes with running water, electricity, and a bathroom. Women workers spend 53 percent of their income on food, 5 percent on clothing, 4 percent on fuel and light, 12 percent on medication, and 3 percent on education. The total amount of miscellaneous expenses is 23 percent. While 90.5 percent of them are dissatisfied with the current facilities, 9.5 percent are satisfied with the sewage facilities.

References

1. Amjad, Rashid, (ed.), *Human Resource Planning: The Asian Experience*. New Delhi. ILO, 1987.
2. Amsden, Alice H. (ed.). *The Economics of Women and Work*. Bombay: Penguin Books, 1980.
3. Bagchi, Jasodhara (ed.), *Indian Women - Myth and Reality*. Hyderabad: Sangam Books, 1995.
4. Baud, I. S. A., *Forms of Production and Women's Labour, Gender Aspects of industrialisation in India and Mexico*. New Delhi: Sage Publications, 1992.
5. Bowen, et al., *The Economics of Labour Force Participation*. New York: Princeton University Press, 1969.
6. Bromley, R. and Gessy, C., *Causal Work and Poverty in Third world Cities*. U. K.: Wiley and Sons, 1979.
7. Burinic, M. et al. *Women and Poverty in the Third World*. Baltimore: John
8. Hopkins, 1983.
9. Chatterjee P. *A time for tea: women, labor and post-colonial politics on an Indian plantation*. Zubaan: New Delhi; 2003.
10. Chatterjee, Shoma A. *Women's Search for an Identity*. New Delhi: Vikas Publishing House, 1988.
11. Chatterjee P. *A time for tea: women, labor and post-colonial politics on an Indian plantation*. Zubaan: New Delhi; 2003.
12. Gaffar A. *The plantations Labour Act, 1951 & The Assam plantations labour rules, 1956*. 2nd ed. Assam Law House: Guwahati; 2014.
13. Goddard S. *Tea Break: A Crisis Brewing In India*. ActionAid; 2015.
14. Macfarlane A, Macfarlane I. *Green gold: The Empire of tea*. London; Ebury

Taxonomic Complexity of *Cylichna lemchei* and *Acteocina decorata* at Munroe Island, Kerala: Ecological and Morphological Convergences

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Abstract

Our study includes a total of 30 species, comprising 18 gastropods, 10 bivalves, and 2 cephalopods from Munroe Island. Among these, we identified a species previously recorded along the western coast of India, which we initially believed to be *Acteocina decorata* (Bouchet & Waren, 1979) from the *Cylichnidae* family. However, this species closely resembles *Cylichna lemchei* (Pilsbry, 1904), creating a significant challenge in their taxonomic classification. Through an extensive review of literature and a detailed analysis of a diverse collection of specimens from various locations on Munroe Island, we highlight the complexities in the abundance and taxonomic composition of these species across different spatial and temporal scales.

Both *Cylichna lemchei* (Bouchet & Waren, 1979) and *Acteocina decorata* (Pilsbry, 1904) are marine gastropods found along India's western coast, particularly around Munroe Island in Kollam, Kerala. Despite sharing many morphological similarities, these species present significant taxonomic challenges that complicate their identification and classification. This study aims to address these taxonomic difficulties by comparing the two species in terms of their morphological characteristics, habitat preferences, distribution patterns, and the challenges associated with distinguishing them.

The present investigation seeks to understand the variation in molluscan species, particularly gastropods, around Munroe Island in Kerala's Kollam district. Munroe Island, a traditional backwater village, lies at the confluence of the Ashtamudi backwater and the Kallada River system. The island group, comprising eight smaller islands, spans an area of 13.4 km². Its primary geological composition includes sedimentary rocks on the mainland and low-lying delta areas along the Kallada River and Ashtamudi Lake. The surrounding region, part of the Ashtamudi estuary, is a notable geological feature in the South Indian peninsular shield, made up of crystalline rocks and tertiary sediments.

Keywords: *Cylichna lemchei*, Kallada river, Munroe Island, Gastropods.

Introduction

Munroe Island, located in Kerala, South India, consists of a group of eight small islands at the point where the Ashtamudi Estuary meets the Kallada River. Unfortunately, the island's ecological state is at risk due to land degradation, which has earned it the nickname of a "submerging island." The primary cause of this degradation is

the destruction of its mangrove ecosystems. Munroe Island lies at coordinates 8° 59' 25.296"N and 76° 36' 54.792"E, covering an area of around 13.4 km². The island experiences an average temperature range of 25–32°C and receives approximately 270 cm of rainfall annually.

Marine molluscs play a crucial role in the biodiversity of India's coastal ecosystems,

including both the mainland and nearby islands. They are known for their rich diversity and are found in a wide variety of habitats, from terrestrial and freshwater environments to marine ecosystems. Molluscs occupy environments such as rocky shorelines, sandy beaches, coral reefs, mangrove forests, and even deep-sea habitats. Particularly abundant in benthic regions, molluscs thrive in mangrove ecosystems, as highlighted in studies like those by Satheeshkumar and Khan (2012). Numerous studies globally have explored the diversity of gastropods and bivalves in mangrove habitats (Jiang and Li, 1995; Ghasemi et al., 2011; Hamdard et al., 2016). In India, a total of 215 mollusk species, including arboreal species, have been documented in mangrove areas (Boominathan et al., 2012).

Although molluscs are well-studied in many parts of India, the gastropod species of Munroe Island remain relatively under-researched. A study by Ravinesh et al. (2021) in the Ashtamudi Estuary along the southwest coast of India documented 119 mollusk species across three classes (Polyplacophora, Gastropoda, and Bivalvia), 57 families, and 96 genera. Four species were also recorded for the first time in India: *Desmaulus edgarianus* (Melvill, 1898), *Pilosabia trigona* (Gmelin, 1791), *Nassarius javanus* (Schepman, 1891), and *Jorunna labialis* (Eliot, 1908). Another study by Vishwanathan and Biju Kumar (2023) on the diversity of molluscs along a salinity gradient in Ashtamudi Lake revealed 83 species, including one polyplacophoran, 41 gastropods, 37 bivalves, and four cephalopods. Among these, three species were newly recorded along India's west coast: *Assimineia woodmasoniana* (G. Nevill, 1880), *Rugalucina vietnamica* (Zorina, 1978), and *Platevindex martensi* (Plate, 1893). Several species, such as *Chiton granoradiatus* (Leloup, 1937), *Clithon sowerbianum* (Récluz, 1843),

Littoraria pallescens (Philippi, 1846), *Acteocina decorata* (Pilsbry, 1904), *Alaona ala* (Hanley, 1845), and *Serratina siamensis* (E. von Martens, 1860), were also identified as new records for Kerala. Our own research identified 30 species, including 18 gastropods, 10 bivalves, and 2 cephalopods. Among these, we encountered a species that had not been previously recorded on the western coast of India, potentially identified as *Cylichna lemchei* (Bouchet & Warén, 1979) from the Cylichnidae family. This species closely resembles *Acteocina decorata* (Pilsbry, 1904), which presents an ongoing challenge in their taxonomic classification and identification.

Material and Methods

Specimens were collected using a combination of hand-picking, hand-lift netting, and grab sampling methods. Sediment samples were obtained with a Van Veen grab sampler, which extracted sediment from depths of up to 15 cm over an area of approximately 0.1 m². In the field, the retrieved sediment was washed with lake water to facilitate the separation of mollusk species, achieved by sieving through meshes of varying sizes. The newly collected specimens, including gastropods, pelecypods, and cephalopods, were then subjected to cleaning, washing, photographing, and preservation in a 70% ethanol solution. Identification of the specimens was carried out with reference to taxonomic literature, including works by Valdes & Heroes (1998), Mikkelsen (1985), and Viswanathan & Biju (2023). Munroe Island, located in the Kollam district, was formed through sediment deposition by the Kallada River and Ashtamudi Lake, giving it a lacustrine origin. The archipelago comprises eight smaller islets. The region showcases a blend of modern and traditional aquaculture practices, while settlements are interspersed among coconut groves, with mixed coops dominating the elevated areas. Once

a hub for large-scale coir retting, this activity is now confined to a few specific sites. In recent years, the island has been significantly impacted by rising water levels, resulting in flooding and land subsidence of 3 to 4 meters, posing severe

challenges for the local community. Contributing factors to this sinking include unsustainable agricultural practices, recent construction activities, and climate change.

S. No	Sampling Location	Latitude	Longitude
1	L1	N 8° 59' 13.2"	E 76° 37' 9.9"
2	L2	N 8° 59' 12.5"	E 76° 37' 20.4"
3	L3	N 8° 98' 71.29"	E 76° 62' 6.43"
4	L4	N 8° 59' 29"	E 76° 37' 26"
5	L5	N 8° 99' 13.46"	E 76° 62' 25"
6	L6	N 8° 98' 32.46"	E 76° 61' 36.98"

Table. 1 Location of study area

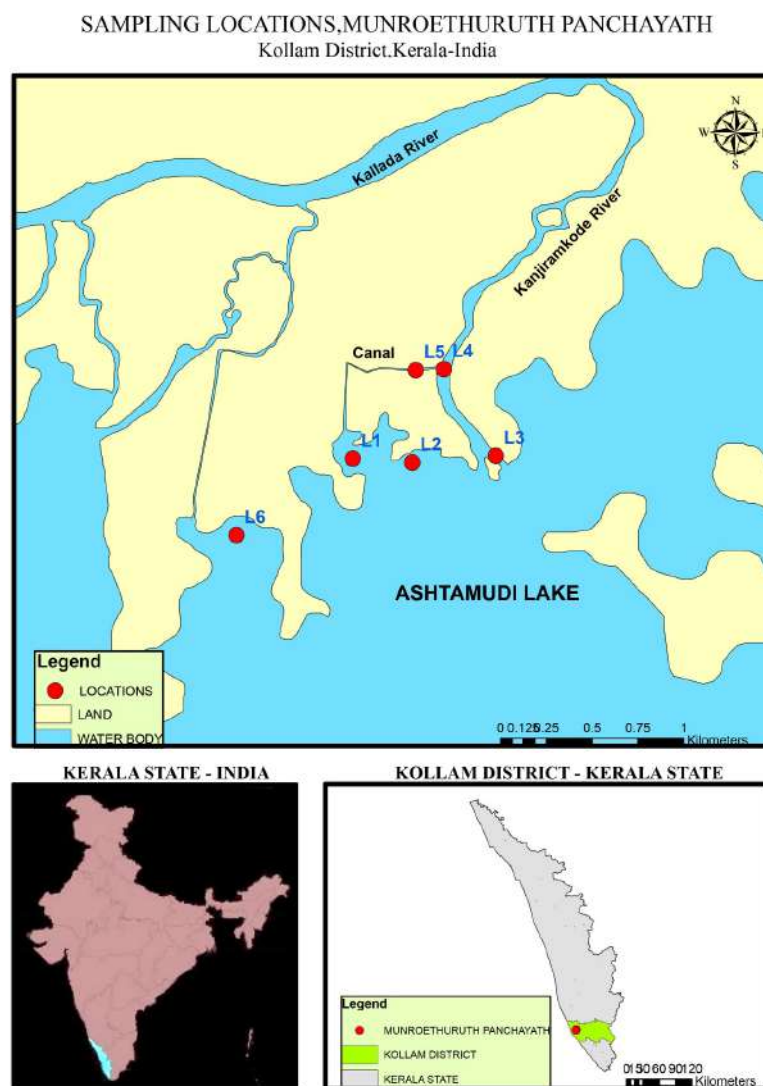


Fig: 1 Map of Munroe Island showing study sites

Taxonomic Description Of Gastropods Found In Munroe Island

Order: Littorinimorpha

Family: Littorinidae

Genus: *Littoraria*

Species: *Littoraria pallescens* (Philippi, 1846)

Description: The shell of *Littoraria pallescens* is elongated and tapers at both ends, forming a small, soft, and pyramid-like structure reminiscent of a coiled thread. Similar to other members of the subclass Prosobranchia, it possesses a shell cover, known as an operculum, which is distinguished by its purplish hue. Although *L. pallescens* shares visual similarities with other species of *Littoraria*, it can be identified by the unique coloration of its operculum. This species inhabits a variety of mangrove trees, where it can be found dispersed across the leaves, branches, and roots.

Remark: Similar to other members of the *Littoraria* genus, *L. pallescens* features an elongated, pyramid-like shell that tapers at both ends. The shell's defining characteristic is its purplish operculum, a trait that helps distinguish it from other closely related species. Its presence on Munroe Island highlights the ecological significance of the island's mangrove ecosystem, which supports a diverse range of flora and fauna.

The abundance of *L. pallescens* on Munroe Island may also reflect the island's health as a mangrove habitat: *Littoraria pallescens* *Littoraria pallescens* is discovered in location-3, adjacent to the Kallada river, and it inhabits regions with elevated turbidity levels. The estuary receives the turbid and polluted waters from the Kallada river, which transport significant amounts of suspended particles.

Dimension: The shell color of this marine mollusk can provide clues about its habitat and

development. In terms of physical characteristics, this sea snail features a conical shape with two distinct variations, specifically light and dark. The dimension of shell range from 15 mm to 18 mm.

Order: Littorinimorpha

Family: Assimineidae

Genus: *Assiminea*

**Species: *Assiminea woodmasoniana*
(G. Nevill, 1880)**

Description: *Assiminea woodmasoniana* stands out as one of the most elongated species within its genus. During its lifetime, the shell of this species exhibits a blackish and glossy appearance. Additionally, the animal boasts black eyes and a reddish patch beneath each eye stalk.

Remark: *Assiminea woodmasoniana*, a remarkably elongated species found in the genus, is regarded as a rare and recently identified discovery in Kerala. This species has been observed along the Bengal coasts in India, Thailand, Andaman Islands, and Sumatra. Notably, *Assiminea woodmasoniana* thrives abundantly in location 2.

Dimension: Measuring approximately 3.7 mm in length, the shell possesses a unique spiral thread located midway between the suture and the outer edge.

Order: Cephalaspidea

Family: Tornatinidae

Genus: *Acteocina*

Species: *Acteocina decorata* (Pilsbry, 1904)

Description: The snails are commonly referred to as "bubble snails", with their shells being called "bubble shells" due to the highly inflated shells of certain species, which are nearly spherical in shape, thin, and lightweight.

Remarks: oval-shaped external shells that are spacious enough to house the entire snail when it withdraws. The shells of all species exhibit a similar shape, featuring a profound, slender umbilicus at the highest point.

Dimension: Measuring approximately 3.5 mm in length and the lack of an operculum is clearly visible.

Results And Discussion

The Munroe Island in Kollam district was created through the process of sediment deposition by the Kallada River and Ashtamudi Lake, hence its origin is lacustrine. The archipelago consists of eight smaller islands. Currently, the island has become a popular destination for tourists attracted by its natural beauty and the presence of numerous interconnected canals. Both modern and traditional aquaculture practices can be observed in the area. Settlements are scattered among coconut plantations, with mixed coops dominating the land use in the higher areas of the island. Historical large-scale coir retting activities have now become limited to a few specific locations. In recent years, the island has faced a significant threat from rising water levels, leading to flooding and subsequent subsidence of 3 to 4 meters, posing a major challenge for the local inhabitants. Various factors such as improper agricultural techniques, recent construction projects, and climate variations have contributed to the sinking of the island. The *Littoraria pallescens* can be found in location-3, near the Kallada river, where it prefers habitats with high levels of turbidity. The estuary is influenced by the turbid and contaminated waters from the Kallada river, carrying substantial quantities of suspended particles. The color of the shell of this marine mollusk can offer insights into its environment and growth. This sea snail has a conical shape with two different color variations,

light and dark. The size of the shell typically falls within the range of 15 mm to 18 mm.

Assimineea woodmasoniana, an exceptionally elongated species discovered within the genus, is considered a rare and newly recognized finding in Kerala. This particular species has been documented along the coasts of Bengal in India, Thailand, the Andaman Islands, and Sumatra. It is worth mentioning that *Assimineea woodmasoniana* flourishes abundantly in location 2. With a length of approximately 3.7 mm, the shell showcases a distinctive spiral thread positioned midway between the suture and the outer edge.

Acteocina decorata are often known as “bubble snails”, and their shells are referred to as “bubble shells” because of the inflated shell of certain species, which is almost perfectly round, thin, and lightweight. The external shells are oval-shaped and provide enough space for the entire snail to retract into. All species have shells with a similar shape, characterized by a deep, slender umbilicus at the top. The absence of an operculum, which is easily noticeable, is another distinguishing feature, with the snails measuring approximately 3.5 mm in length.

Taxonomic Notes on Classification

The classification of certain molluscan species found on Munroe Island remains unresolved. For instance, the taxonomic distinction between *Cylichna lemchei* and *Acteocina decorata* continues to be a subject of scientific inquiry. Both species were once grouped under the genus *Bulla*, and there is ongoing research to ascertain their proper taxonomic placement. Resolving this issue requires comprehensive morphological and genetic analysis to clarify their evolutionary relationships.

Munroe Island's formation, biodiversity, and ecological significance are of immense value. The

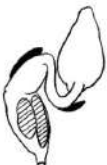






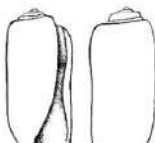
island’s unique mangrove ecosystems provide critical habitats for diverse molluscan species, such as *Littoraria pallescens*, *Assiminea woodmasoniana*, and *Acteocina decorata*. However, environmental challenges like land subsidence, rising water levels, and habitat loss

pose severe threats to the island’s biodiversity. Conservation and sustainable management of Munroe Island’s ecosystems are essential to protect these ecologically important molluscan species and the livelihoods of the local communities that depend on them.

Features	<i>Cylichna lemchei</i>	<i>Acteocina decorata</i>
Shell shape	Elongated , Cylindrical	Ovate, cyclindrical
Spire	Reduced or hidden	Slightly more pronounced
Aperture	Wide, elongated	Large, but slightly tapered
Shell texture	Smooth, glossy	Smooth, sometimes faint grooves
Coloration	Pale, translucent white	Colourful patterns, bands, spots
Habitat	Sandy/ Muddy sediments	Sandy/muddy sediments

Table 2: Morphological Comparison Table of *Cylichna lemchei* and *Acteocina decorata*.

Fig: 2 Shell morphology and key features of *Cylichna lemchei* and *Acteocina decorata*

Name of species	Digestive system	Radula	Gizzard plate	Juvenile
<i>Cylichna lemchei</i>				
<i>Acteocina decorata</i>				

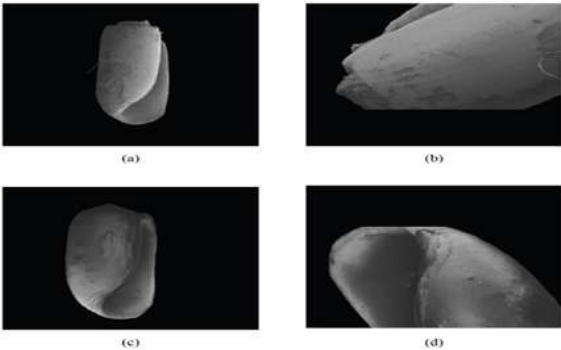


Figure 3 (a), (b)*Acteocina decorata* (Pilsbry, 1904) (c), (d)*Cylichna lemchei* (Bouchet and Waren, 1979) (e) (f) *Assiminea woodmasoniana* (G. Nevill, 1880)

References

1. Analuddin, K., La Ode, K., La Ode, M.Y.H., Andi, S., Idin, S., La, S., Rahim, S., La Ode, A.F., Kazuo, N. (2020). Above ground biomass, productivity and carbon sequestration in *Rhizophora stylosa* mangrove forest of Southeast Sulawesi, Indonesia. *Biodiversitas Journal of Biological Diversity*, 21(4).
2. Bloch, C.P. (2012). Why snails? How gastropods improve our understanding of ecological disturbance. *Bridgewater Review*, 31, 8–13.
3. Boominathan, M., Ravikumar, G., Chandran, M.S., Ramachandra, T. (2012). Mangrove associated molluscs of India, in: National Conference on *Conservation and Management of Wetland Ecosystems*. pp. 1–11.
4. Davis, J.P., Pitt, K.A., Connolly, R.M., Fry, B. (2015). Community structure and dietary pathways for invertebrates on intertidal coral reef flats. *Food Webs*, 3, 7–16.
5. Ghasemi, S., Zakaria, M., Mola Hoveizeh, N. (2011). Abundance of molluscs (Gastropods) at mangrove forests of Iran. *Journal of American Science*, 7, 660–669.
6. Jiang, J., Li, R. (1995). An ecological study on the Mollusca in mangrove areas in the estuary of the Jiulong River. *Hydrobiologia*, 295, 213–220.
7. Kantharajan, G., Pandey, P., Krishnan, P., Samuel, V.D., Bharti, V., Purvaja, R. (2017). Molluscan diversity in the mangrove ecosystem of Mumbai, west coast of India. *Regional Studies in Marine Science*, 14, 102–111.
8. Murniati, D.C., Pratiwi, R. (2015). *Kepiting uca di hutan mangrove Indonesia: tinjauan aspek biologi dan ekologi untuk eksplorasi*. LIPI press.
9. Nevill G. (1881). Description of a new species of *Rostellaria*, from the Bay of Bengal. *Journal of the Asiatic Society of Bengal*, 50 (Part 2), 262.
10. Philippi R., A. (1849). *Centuria tertia testaceorum novorum*. *Zeitschrift für Malakozoologie*, 5, 161–176.
11. Pilsbry H., A. (1904). New Japanese marine Mollusca: Gastropoda. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 56, 3–37.
12. Satheeshkumar, P., Khan, A.B. (2012). Influence of environmental parameters on the distribution and diversity of molluscan composition in Pondicherry mangroves, southeast coast of India. *Ocean Science Journal*, 47, 61–71.
13. Thiele J. (1925). Gastropoden der Deutschen Tiefsee-Expedition. II Teil. Wissenschaftliche Ergebnisse der Deutschen Tiefsee Expedition auf dem Dampfer “Valdivia” 1898-1899, 17, 35–382.
14. Ullah, Z., Zehra, I., Gondal, M.A. (2015). Species diversity, distribution and seasonal abundance in mangrove associated molluscs along the Karachi Coast, Pakistan. *Journal of Bioresource Management*, 2, 2.
15. Vishwanathan, C., Biju Kumar, A. (2023). Diversity and spatial distribution of molluscs along the salinity gradient in Ashtamudi Lake Ramsar site, Kerala, India. *Zoological Survey of India* (special issue), 1-359.
16. Voisin, C., Voisin, J.-F., Jouanin, C., Bour, R. (2004). Liste des types d’oiseaux des collections du Muséum national d’Histoire naturelle de Paris. 13: Gangas et Pigeons (Pteroclididae et Columbidae), première partie. *Zoosystema*, 26, 107–128.

Vaikom Satyagraha: An Icon of Social Transformation

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Abstract

Kerala was considered to be the most caste ridden part of India. Vaikom Satyagraha was an organized agitation in Kerala against the traditional and orthodox Hindu set up in the society. Kerala society showed excessive caste consciousness for many centuries on end. It was not based on the principles of social freedom and equality. The struggles against untouchability and unapproachability were very important in the social reform movements in Kerala during the last century. This struggle owed to structural changes in the society and the subsequent emergence of a new class, the educated middle class. For the first time the protest brought forward the question of civil rights of the people of low caste into the forefront of Indian politics. No mass protest in Kerala gained so much awareness and significance in the twentieth century as the Vaikom Satyagraha. The present paper seeks to analyse the role of Vaikom Satyagraha among the civil right agitations of Kerala. Historic Vaikom Satyagraha, which attracted all India attention. The Satyagraha was started to establish the right for all people to walk through the temple roads. Leaders like K.P. Kesava Menon and T.K. Madhavan led the agitation. The movement had its epicentre at the temple of Lord Siva at Vaikom near Kottayam. Vaikom Satyagraha symbolized a movement for justice and equality across the country. It became a key event in the civil rights movement which helped to define the social identity of Kerala.

Keywords: Castesystem, Satyagraha, Avarnas, Savarnas, Caste-Ridden Society, etc.

Introduction

The Kerala society in the 19th century was steeped in religious superstition and social obscurantism. The struggles against untouchability and unapproachability were very important in the social reform movements in Kerala during the last century.¹ Kerala witnessed a cultural and ideological struggle against the social inequalities. The Vaikom Satyagraha was the first systematically organized agitation in Kerala against orthodoxy to secure the rights of the depressed classes. It was a historic struggle which paved way for the temple entry proclamation of the Travancore government. For the first time in history, the agitation brought forward the question

of civil rights of the low caste people into the forefront of Indian politics. No mass agitation in Kerala acquired so much all-India attention and significance in the twentieth century as the Vaikom Satyagraha. The lower caste people had no permission to walk on some of the public roads in Kerala. This tendency was stronger in the southern part of the state. The initial struggle for getting the right to travel through the public roads for the lower castes was started by Ayyankali. In the later period the communal organisations, progressive minded individuals came together to work for the right to travel for all, irrespective of their caste.

Eradication of untouchability was one of the main items in the constructive programme outlined

by Mahatma Gandhi. The K.P.C.C decided to take concrete steps in pursuance of the Kakinada decision in 1923. At a meeting of the Congress Committee held at Ernakulam in February 1924 a special committee was set up to chalk out a programme of action for carrying on the campaign against untouchability. This committee consisted of T.K Madhavan, Kurur Neelakantan Namboodiripad, T.R KrishnaswamyAiyar, Kannathodathu Velayudha Menon and K. Kelappan.² The committee decided to organise a Satyagraha at Vaikkom in order to get the approach roads to the famous Siva temple opened to *Avarnas*. The *Avarnas* continued their struggle with added vigour. The anti-untouchability committee held a meeting on 6 February 1924 at Quilon under the chairmanship of K.Kelappan, a caste Hindu, and in that meeting, Vaikkom was selected as the centre to launch the struggle.³ Vaikkom was known for its famous temple dedicated to Lord Siva. It is a tiny temple town in the central part of Travancore on the eastern banks of the backwaters of Vembanad Lake. The town is very popular for its Shiva Temple that in the early twentieth century was the epicentre for caste-system and orthodox thinking. As the custom prevalent in the olden days, the *Avarnas* were not allowed to enter the temples. But, as a matter of fact, Vaikkom they were not permitted even to use the public roads around temple. There were notice boards that were put up at various spots prohibiting the entry of *Avarnas* reminding them of their social inferiority.⁴ To add to the dismay, the unbearable part was that the Muslims and Christians were freely allowed on these roads.

Vaikkom Satyagraha the epic struggle organised and led by T.K. Madhavan was the first organised and peaceful attempt in India at applying the Gandhian principle and methods of Satyagraha for redressing age-old social grievances of a large

section of the Hindus in Kerala. The social and political awakening of the people of the state as a result of the emergence of Sree Narayana Guru on the socio-religious horizon of Kerala gradually but firmly led them along the path of social change and social progress. In addition to T.K. Madhavan several other top leaders like K.P. Kesava Menon, Mannath Padmanabhan, Changanachery Parameswaran Pillai, C.V Kunjiraman and K. Kelappan were associated with Vaikkom Satyagraha. Its aim was to get the approach roads to the Vaikkom temple opened for the *Avarnas* of the Hindu community. One of the highlights of the Satyagraha was the *Savarna Jatha* organised under the leadership of Mannath Padmanabhan, by the caste Hindus who supported the movement.⁵ The protest against these inhuman superstitions, that arose in the minds of the caste Hindus (*Savarnas*) resulted in the Vaikkom Satyagraha. The Vaikkom Satyagraha took place during the British Residency rule.⁶ The members of the *jatha* came to Trivandrum and submitted their demand before the Regent Setu Lakshmi Bai.

The Vaikkamsathyagraha and the *Savarna Jatha* helped to influence public opinion in the state in favour of temple entry.⁷ The roads around the *prakara* (outer wall) of this temple were used for ceremonial processions and therefore access to *avarnas* had been denied. But no restriction was made against the Christians and the Muslims for using those roads. The committee decided to organise a procession of men of all to march through the roads round the Vaikkom temple to worship at each gopuram on the next morning.⁸ The District Magistrate thereupon issued a prohibition order in favour of the *Savarnas* by saying that the lower castes had no right to the roads leading to the Vaikkom temple. In spite of the prohibitory order on 30th March 1924, the

Congress workers carried out a procession peacefully; through the road. Among them three volunteers, a Pulaya, an Ezhava and a Nair dressed in Khadar courted arrest and afterwards they were sentenced for six months simple imprisonment.⁹ It was T.K Madhavan who took up the cause with a missionary zeal and initiated some during steps for realizing his objective. And these the origin of the Vaikom Satyagraha may be traced back to an article written by C.V Kunjiraman in the *Desabhimani* a Malayalam weekly edited and published by T.K Madhavan from Quilon. Then the so many newspapers demanded the temple entry in lower castes.¹⁰ Mahatma Gandhi extended his full moral support to the agitation. Sree Narayana Guru blessed the venture. His *Asram* at Vaikkam was being used as the Satyagraha camp. Leaders from outside Kerala like C. Rajagopalachari, S.Srinivasa Ayyangar, Swami Sradhdhanand and E.V Ramaswami Naicker visited Vaikom and encouraged the Satyagrahis. A group of twelve Akalis who came from the Punjab ran a free kitchen for the volunteers in which hundreds were fed every day. Appeals poured in from all over the country to the Maharaja praying for the abolition of the unfair custom, but they did not have any immediate effect.¹¹

The Government followed an uncompromising attitude towards the popular demands. Sri MulamThirunal, the Maharaja of Travancore, was not in favour of throwing open the roads at Vaikom to the Avarnas. He wanted the strict adherence to the caste rules and customs. Moreover the Congress interference in the affairs of Travancore was deeply resented by him. The Satyagrahis decided not to take out a large procession, but to send only three or four volunteers at a time through the controversial road. The method continued until 10th April 1924. Afterwards the Satyagraha was suspended for a few days in

order to avoid confrontations between the Satyagrahis and the orthodox oppositions. When it was resumed with added vigour the Government authorities barricaded the road and left police guard to prevent the entry of the *Avarnas*.¹² They adopted cruel measures to crush the spirit and to check the movement of the Satyagraha volunteers. Cases are reported of police squeezing the testicles and injuring the private parts of Satyagraha volunteers. A large number of reckless youngsters and drunkards were fed by the temple authorities to defend their time-honoured customs. The Government tried to portray the Vaikom issue as a religious dispute and not as a question of civil rights.¹³

Newspapers and other journals carried the sensational news of the processions and a large number of letters, both for and against it was addressed to respective editors. Leaders like Vijayaragavachary of Selam, Swami Sradhdhanandaji and Pandit Madan Mohan Malaviya appealed to the Maharaja of Travancore to open the roads round not only the Vaikom temple but round all temples in the state to enable the *Avarnas* to use them like the caste-Hindus and non-hindus.¹⁴ In the meantime K.P Kesava Menon, in his capacity as the KPCC secretary had written to Gandhiji and obtained his prior permission for the procession. In spite of the fact that Gandhiji had given green signal to the struggle, he had not forgotten to remind the organizers that “the success of the struggle depends not upon any vain spirit of braved, but upon the silent preparation and solid organization behind the campaign ensuring non-violence and the enlistment of the sympathy of the disinterested public”.¹⁵

The Vaikom Satyagraha was started on 30th March 1924 itself. The whole area was cordoned by the police. The first batch of the Satyagraha is included Kunhappi (Pulaya), Bahuleyan (Ezhava)

and Govinda Panikkar (Nair). When the Satyagraha is the two of them being lower caste origins, crossed the proposed boundary, where the board was fixed in the road prohibiting low caste people from going forward, they were arrested. The next day another group of volunteers got arrested.¹⁶ The arrest of the satyagrahis gathered wide spread propaganda for the Vaikom Satyagraha. Most of the leaders were arrested. The caste and communal organisations like the Yogakshema Sabha, Kerala Hindu Sabha, Nair Service Society, Kshtriya Sabha etc. interested their support to the satyagraha.¹⁷ Gandhiji appealed the people of Kerala to support the cause of the Satyagraha. This time the Vaikom memorial was submitted to the ruler of Travancore. The memorial requested the government that the roads at the Vaikom temple and all other similar roads in the country to be thrown open to all people irrespective of their castes. In the mean while a resolution to this effect was moved in the Travancore Legislature Assembly, but it was defeated by a solitary vote.

While the Vaikom Satyagraha was going on, Maharaja Sri Mulam Tirunal passed away (August 7, 1924). The new ruler, Regent Maharani Setu Lakshmi Bai, ordered the release of all those arrested in connection with the satyagraha. Gandhiji now suggested that a petition signed by Caste Hindus be submitted to the ruler favouring the opening of the approach roads at Vaikom to all Hindus including *Avarnas*. As advised by Gandhiji, the caste hindus decided to organise a *Savarna Jatha* and present a petition to the Rani in person. A *Jatha* which left Vaikom under the leadership of Dr.M.E. Naidu. The leaders of the jatha met the Rani on November 12, under the leadership of Changanasseri Parameswaran Pillai and presented a petition signed by 25, 000 persons. Mahatma Gandhi himself visited Vaikom on March 9, 1925 and finalised a compromise formula

after discussions with the Police Commissioner Mr.Pitt. on the basis of this formula the approach roads to the Vaikom temple were thrown open to all Hindus irrespective of caste and the boards exhibited at the entrance to these roads denying entry to *Avarnas* were removed. It was during this visit to Travancore that the famous meeting between Mahatma Gandhi and Sree Narayana Guru took place at Varkala on 12, 1925.¹⁸

The Vaikom compromise was not immediately applied in other areas where the *Avarnas* were still being denied access to approach roads leading to temples. Hence similar Satyagrahas were organised at Ambalapuzha, Thiruvarpur, Suchendram etc. Gandhiji who visited Travancore again in October 1927 had further discussions on this issue with Mr.Watts, the Diwan of Travancore at the time. By 1928 the Travancore Government issued orders throwing open the approach roads to temples to *Avarnas* all over the state.¹⁹ The Satyagraha succeeded in fulfilling its aim after a prolonged struggle that lasted for 603 days. The fight against untouchability in general continued after the Vaikom Satyagraha.²⁰ Similar movements were started at Suchindram in south Travancore and Guruvayur in British Malabar under the leadership of Indian National Congress. Vaikom Satyagraha had a moral impact on the whole of India and helped to bring the political and social movements in Kerala within the fold of the Gandhian revolution.²¹

Conclusion

Vaikom Satyagraha was a movement that gained immense popularity and gathered maximum support. For the first time in history, an agitation brought the question of the civic rights of the lower caste people to the forefront of Indian politics. One view is that it was only a partial success for non-caste Hindus as they gained access only to

the roads on three sides of the temple. The fourth and most important eastern road remained inaccessible to them. It was really a blow to the Christians and Muslims as they lost their previously enjoyed freedom to have complete access on all the roads around the temple. Now the eastern road was blocked to them. Because of the gates, which remained closed the members of the Devaswam Board and the inmates of the temple who used the eastern road as thoroughfare were denied the opportunity. Anyway it was a great opportunity for the Indian National Congress party to grow in Kerala. Before this agitation, the Avarnas did not bother about the Congress, as the Congress leaders did not show any enthusiasm for the eradication of social inequalities. Another achievement of Vaikom agitation is certainly communal harmony. On the whole the Vaikom Satyagraha was an important struggle in the history of Kerala which aimed to establish social and religious tolerance. It was a historic struggle which paved way for the temple entry proclamation of the Travancore government. The Vaikom Satyagraha represented a fight for justice and equality nationwide. This pivotal event in the civic rights movement played a significant role in shaping the social identity of Kerala in the years that followed.

Notes and References

1. B.Sobhanan, *Temple Entry Movement in Kerala*, *Journal of Kerala Studies*, Vol XII, Trivandrum, June, 1985. pp.200-201.
2. A.SreedharaMenon, *A Survey of Kerala History*, D.C Books, Kottayam, 2012, p.315.
3. T.K. Ravindran, *Vaikkam Satyagraha and Gandhi*, Sri Narayana Institute of Social and Cultural Development, Trichur, 1975.p.9.
4. T.N Gopinathan Nair, *Sree Chithirathirunal Avasanathe Naduvazhi* (Mal), Department of Cultural Publications, Thiruvananthapuram. 1999, p.66.
5. A.SreedharaMenon, *Kerala and Freedom Struggle*, D.C Books, Kottayam, 1997, p.74
6. B.Sobhanan, *loc.cit*, p.201.
7. *The Hindu*, March 31, Monday 1924.
8. T.K. Ravindran, *op.cit*, p.18.
9. A.SreedharaMenon, *op.cit*, p.74-75.
10. B.Sobhanan, *loc.cit*, p.201.
11. P.K.K Menon, *The History of Freedom Movement in Kerala (1885-1938)* Vol.II, Department of Cultural Publications, TVM, 2001.p.258.
12. T.K Ravindran, *op.cit*, p.22.
13. P.K.K Menon, *op.cit*, p. 259.
14. *Ibid*.
15. MadhavaMenon(ed.), *A Hand Book of Kerala*, p.185.
16. A.SreedharaMenon, *op.cit*, p.75.
17. *Ibid*, p.76.
18. *Kerala Kaumudi*(Malayalam Daily), November1, Monday 2004.
19. S.Ramachandran Nair, *Freedom Struggle in Colonial Kerala*, St.Joseph Press, Thiruvananthapuram, p.98.
20. *Ibid*
21. M.P. Sreekumaran Nair, *Historical Biography In Malayalam :An Analytical Survey*, In *Journal of Kerala Studies*, VolIV, December 1978, p.541.

Outline of Rajaji: A Review of Past Events

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Abstract

The outline of Rajaji unfolds the remarkable career of Chakravarti Rajagopalachari popularly known as C.R. for a period of ninety-four years from 10 December 1878 to 26 December 1972. He emerged himself as one of the most prominent architects of modern India by holding several positions starting from the Municipal Chairman to the Governor- General India. He was a committed social reformer who stood for the eradication of untouchability, prohibition, Harijan uplift, the abolition of Zamindari system, providing relief to the agriculturalists, spread of Khadi and Handloom development. Rajaji's efforts for the betterment of Khadi and Handloom Industry led to rapid progress. He always remained an ardent follower of Gandhiji. Though some of the administrative measures like kulakalvithittam earned the displeasure of the non-caste communities he stood for the welfare and happiness of the people. He went to the extent of comparing cinema with liquor and poison as it is corrupting the youth and ruining the families. In the course of his prolonged career he had to face both the compliments and criticisms. He brimmed with the indomitable courage to fight for noble causes without losing heart. As a radiant and charismatic person of great courtesy, kindness, courage and glitter, at times he had been adored, criticized, suspected and even condemned. He received bouquets as well as the brickbats without any favour or prejudice. To him the greetings and condemnation represented two sides of the same coin. He tried to adhere himself to the cause of justice and righteousness.

Keywords: Chakravarti Rajagopalachari, Mahatma Gandhi, Chairman of Salem Municipality, Premier of Madras Presidency and Chief Minister of Madras state, Governor of Bengal, Governor-General in free India, Indian National Congress, Swatantra Party

Introduction

The national awakening assumed greater dimensions in India in the twentieth century with the emergence of C. Rajagopalachari (1878 - 1972) as a popular leader. He was born to Chakravarthi Venkatarya Iyengar and Singaramma on 10th December 1878 in a devout Iyengar family at Torrapalli in Hosur Taluk of Salem district in Tamilnadu.¹ Popularly known as Rajaji, he was the first and last Indian to be the Governor - General of India. He was an ardent patriot, a pioneering

social reformer, incisive thinker, profound scholar, and author. Rajaji was also an eminent statesman and able administrator.² Rajaji was one among the selected band of leaders who participated in the freedom movement of India. His active participation in the freedom movement, his dedication to the national cause and his untiring struggle against the British rule earned him a significant place in the history of freedom movement.³ He remained a front-rank national leader for almost four decades. His whole career

was a record of self-confidence, courage, fearlessness and innovations based on Gandhian concepts.

Rajaji is noted for his simplicity, dignity and elegance. His life is no doubt, a time-mirror from which anyone can notice the very essence of Rajaji's personality and thereby become a better citizen for a better tomorrow. His intellect was sharper and more balanced than most of his formidable contemporaries. Certainly, his life-history would inculcate knowledge and imbibe wisdom into the minds of future citizens of India.⁴ Rajaji's writings in lucid style, his devout individuality, his steadfast faith in God, and his approach to life and work, reveal his uniqueness. Rajaji's high mental calibre marked him out as an unusual politician. He was a person of the highest integrity and self-sacrifice. His key-roles in Indian politics are praiseworthy and traits elevated him to the highest posts such as Governor-General in free India, Governor of Bengal, Premier of Madras Presidency and Chief Minister of Madras state.⁵ As Chief Minister of Madras, he was responsible for Madras-Temple Entry Act in 1939. During his tenure of his office, he pledged strongly for the social and economic reforms of Indian society, especially the removal of untouchability.

Rajaji and Gandhiji:

Rajaji and Gandhi met for the first time and were attached towards each other. Now Rajaji found his guru Gandhiji, and he had become the lieutenant of Gandhiji in the South. Rajaji was a close friend of V. O. Chidambaram Pillai.⁶ In 1919, Rajaji resigned the post of Chairman of Salem Municipality. During this tenure, Rajaji not only performed his social reforms, apart from that as a Chairman of Municipality Rajaji opened new elementary schools, two schools for only girls, and two night schools and a Co-Operative Society

called the "Salem Municipal Employee's Co-Operative Society".⁷ Because of the eclipse of the extremist party due to the several laws passed by the British Government to suppress the extremists, most of the leaders were arrested and deported by them. The repressive measures of the British Government developed the eclipse of the extremist group. The courage and the soft approach of Gandhiji to take problems, attracted Rajaji immensely.⁸ Rajaji thought that the Ahimsa was the only way to oppose the British rule. For the first time in 1918 Rajaji participated in the Madras Presidency Congress Conference held at Kanchipuram.⁹ In 1919, Rajaji decided to migrate to Madras city. Rajaji, now wanted to concentrate in the political affairs of India, more over Salem limited his growing public role.¹⁰ In Madras he rented the house from KasthuriRanga Iyengar, owner and editor of *the Hindu*. Rajaji fully endorsed the views of Gandhiji.

When Mahatma Gandhi entered the Indian independence movement in 1919, Rajaji became one of his followers. He participated in the agitations against the Rowlatt Act in 1919.¹¹ After the First World War, the British Government, once again assumed its stubborn and overbearing posture. Curtailment of civil liberties, to some extent, was accepted by the people during the war.¹² The regime resolved to make these restraints apart of the law of the land, it passed the Rowlatt Bill in 1919.¹³ Rajaji opposed Rowlatt Committee Recommendations since it was disastrous to the people. Gandhiji and Rajaji felt the same wave line in this regard. Rajaji was impressed by Gandhiji's thinking, who wanted covenanters ready to undergo any sufferings for their opposition. Rajaji felt that Gandhiji could be invited to Madras. Gandhiji gladly accepted Rajaji's invitation to visit Madras through KasthuriRanga Iyengar.¹⁴

In between 1919 to 1947 Rajaji took a leading part in the struggles against the British and against his own ignorant countrymen for the eradication of social evils. Both Gandhiji and Rajaji fought with the ultimate aim of building up a new India.¹⁵ So, when Gandhiji started Sabarmathi Ashram, Rajaji also started an Ashram named as 'Gandhi Ashram'. Rajaji was also highly admired by Indian independence activists like Annie Besant and C. Vijayaraghavachariar. Rajaji again joined the Congress in 1945. He became a Minister when Jawaharlal Nehru formed a Government on the eve of independence.¹⁶ The state of West Bengal had certain serious problems. Rajaji became the Governor of that State in 1947. When Lord Mountbatten returned to England, Rajaji became the Governor General occupying the highest position in free India.

Later, he was Home Minister in the Central Government.¹⁷ By then he was 72 years old, and he needed rest. He gave up the minister ship and returned to Madras and the world of letters. He began a study of the Ramayana. A little later, when the Congress Party in Madras again urged him to take up the leadership, he said, "No, I am old, and I do not want any power or responsibility." But finally, he had to agree and in 1952, at the age of 75 years, he became the Chief Minister. He infused a new dynamism into the Congress before retiring. But he became disgusted with the way the country's affairs were going on. He felt that in the havoc created by the control-licence -raj, corruption became rampant and the nation's life was in shambles.¹⁸ It became clear that if there were no strong opposition party in a democracy, it would only be a travesty of democracy. So, the 82-year-old hero founded a new party called "The Swatantra Party".¹⁹ It was the main opposition party in the Lok Sabha till 1969. Rajaji hated sloth- even when he was kept in prison; he converted it

into a school. He tried to impart his knowledge to his co-prisoners. He would recount the stories of the *Ramayana* and the *Mahabharata* to them. Not only he seriously studied many a book in prison, but he wrote some books too. It was in prison that he wrote his book on the ancient Greek philosopher, Socrates. It became a famous work. Many a time when there were quarrels between the prisoners and the officials of the jail and the situation became tense, Rajaji would step in as peacemaker.²⁰ So even the prison officials had great affection and regard towards Rajaji. A feeling has grown that politics means competition and hatred. But the way Rajaji conducted himself in politics was remarkable. The well-known leader Sathyamurthy and Rajaji belonged to opposite groups in politics.²¹ Still when Rajaji was giving up the Presidentship of the Provincial Congress Committee, he tried hard to see that Sathyamurthy was greatly surprised by knowing this thing. He freely praised Rajaji and said, "I never knew that Rajaji had a heart of gold!" Sathyamurthy was the only leader who had not courted arrest even sometime after Gandhiji began the Non Co-operation Movement in 1930.²²

When all other leaders of Madras were in jail Rajaji went straight to Sathyamurthy, though he was his political opponent. He told him, "All other leaders of Madras have gone to jail. It is a question of the prestige of Madras. So you must also participate in the Satyagraha now." Sathyamurthy agreed. Both of them picketed before a shop selling foreign cloth and courted arrest. That was the first stretch of prison life to Sathyamurthy. Rajaji lived in an utterly simple way throughout his life. He had inherited property.²³ Within a couple of years after enrolment as a lawyer, he was earning two to three thousand rupees a month. But he lived a very simple life. Rajaji never left the path of virtue. His life was dedicated to righteousness. He was like Bhishma

in righteousness, and in state craft like Chanakya. Rajaji always wore *Khadi*. He firmly believed in the need to use *Khadi* and Swadesi articles. Even when he was in prison, he used to spin for a few hours every day. As for his clothes, he wore a dhoti, a *jubba* (a loose, long shirt) and a shawl on his shoulders and he wore dark glasses.²⁴ He had to wear them always because of some eye ailment. Someone once asked him about it. Rajaji humorously said, "When I meet anybody, I must look at him well and know about him. But he should not see in my eyes what I think of him."²⁵ So I wear these dark glasses." There were three prominent traits in Rajaji. The first was fearlessness. Never would he refrain from saying or doing what he thought was correct because it might displease someone or it might be unpopular or those in power might become angry. When he was yet very young, he was an admirer of a Swamiji by name Sahajananda, who was a Harijan.²⁶ When the Swamiji came to Salem, Rajaji and his friends arranged a dinner for him. Some orthodox persons became wild with anger at this, and they excommunicated Rajaji and his friends.²⁷ The priests would not go to their houses to officiate their religious functions.

But Rajaji remained undaunted in the midst of all criticisms. When he went to Bombay in 1941, he had to face a black-flag demonstration against him. Some threw stones at him in the public meeting. But Rajaji did make his speech. In just a few minutes, there was calm and the people listened to him. Rajaji had unflinching faith in Mahatma Gandhi's philosophy and principles.²⁸ He always followed them. He was also very close to Gandhiji. Gandhiji was becoming gradually a great and unparalleled leader among the common people. Rajaji recognised that Gandhiji was only leader to lead India to achieve their aim. From then onwards Rajaji united himself with Gandhiji,

and accepted to join the Congress when Gandhiji invited him to join Congress.²⁹ When an association was started in Madras to explain to the people, the philosophy behind Gandhi's method of Satyagraha, Rajaji was chosen president of that body. Gandhiji was very happy when he heard of it. Of course, Rajaji was not a man to accept the ideas and views of others without examining them. Gandhiji so even with the ideals preached it. When the question of dividing the country arose, every Congress leader opposed it. Rajaji kept aloof from the 'Quit India' movement started in 1942 to get the country's independence from the British.³⁰ He was the only leader who did not take an active role in that movement. So he resigned from the Congress in 1942. Some accuse him of being the cause for the rise of Pakistan. He had to face the hostility of the people who thought that he supported the creation of Pakistan.³¹ It became difficult for him to speak in meetings. Quite a few leaders also criticized him harshly. But Rajaji faced not only harsh words but also stones, and justified opinion. At the time Rajaji started the Swatantra Party, the Congress Party and Jawaharlal Nehru had tremendous influence in the country.³²

The freedom struggle of India, under Gandhiji's leadership was unique in many respects. It was fought through direct actions, peaceful and open. This made it possible even for the members of the legal profession, who in ordinary circumstances would not break the law to join the movement. Among the distinguished advocates who joined the movement was C.Rajagopalachari. In him South India has given to our country a 'Maker of New India', equal if not superior, to the greatest of the northern leaders.³³ In 1900 he started a prosperous legal practice. He entered politics and was a member and later President of Salem municipality. He joined the Indian National Congress and participated in the agitations against

the Rowlatt Act, the Non-cooperation movement, the Vaikom Satyagraha and the Civil Disobedience movement.³⁴

In 1930, he led the Vedaranyam Salt Satyagraha in response to the Dandi March and courted imprisonment. In 1937, Rajaji was elected Chief Minister or Premier of Madras Presidency and served till 1940, when he resigned due to Britain's declaration of war against Germany. He advocated cooperation over Britain's war effort and opposed the Quit India movement. He favoured talks with Jinnah and the Muslim League and proposed what later came to be known as the "C. R. Formula".³⁵

But Rajaji did build this opposition party and till his last day, whenever he felt that either the ruling party or very popular leader like Nehru was making a mistake, he roundly condemned it. During the Second World War (1939-45), when it seemed the Japanese would bomb Madras in 1942, the Governor of Madras fled the city.³⁶ The people also started appealed to them. This is our country, not of the British. They may run away. But in those days of run a teashop in the Hindi Prachar Sabha Bhavan. Secondly, Rajaji was an extraordinary genius.³⁷ He was known for his sharp intellect. He could grasp any subject easily. He could pinpoint in a split-second the essence of any situation or problem. Because of such clear thinking and sharp understanding, his speech was also balanced, clear and to the point. As an administrator he displayed direness and a keen intelligence. He was the Chief Minister of Madras in 1937. Then he introduced prohibition. This was being done for the very first time in India. But prohibition meant loss of revenue to Government.³⁸ So he introduced Sales Tax for the first time. Many economists also welcomed the measure. The farmers in our country were bowed and crippled by the weight of debts. Every farmer's family was in debt, and the every interest on it was enough to

ruin the family. A farmer was born as a debtor, and he lived as a debtor and finally died in the same conditions. To remove this pernicious evil, Rajaji brought in a new regulation. He banned the charging of unreasonably high interest.³⁹ As Chief Minister of Madras, Rajaji had laid for himself a very high code of conduct; others would have found it impossible to follow it. He exercised great caution to see that he and his Ministers remained untouched by corruption. He always went to the State Legislative Assembly ready to answer any question or supplementary. He had asked other ministers also to be similarly prepared.⁴⁰

In 1946, he was appointed Minister of Industry, Supply, Education and Finance in the interim government. He served as the Governor of West Bengal from 1947 to 1948, Governor General of India from 1948 to 1950, Union Home Minister from 1951 to 1952 and the Chief Minister of Madras state from 1952 to 1954.⁴¹ He resigned from the Indian National Congress and founded the Swatantra Party, which fought against the Congress in the 1962, 1967 and 1972 elections.⁴² Rajaji was instrumental in setting up a united anti-Congress front in Madras state. This front under C. N. Annadurai captured power in the 1967 elections. Rajaji was an accomplished writer and made lasting contributions to Indian English literature. He pioneered temperance and temple entry movements in India and advocated Dalit upliftment. Rajaji has been criticised for introducing the compulsory study of Hindi and the Hereditary Education Policy in Tamil Nadu.⁴³

In 1952, Rajaji again became the Chief Minister of Madras.⁴⁴ He removed all controls on food grains. Several Ministers at the Center and also others thought that Rajaji had taken a wrong and hasty step. But soon it was evident that what he did was right. So all over the country, the controls on food grains were removed. Two years later he

felt that the educational system in the State should be radically changed. There was great opposition to this. So he resigned. The third important trait in Rajaji was his service-mindedness. Another Congress leader, Kaleswara Rao, has narrated how he became the Chief Minister of Madras. Rajaji never wanted any position.⁴⁵ Vallabhai Patel himself suggested that Rajaji should be the leader of the Party. "I do not want all that," said Rajaji.⁴⁶ He just would not listen. Kaleswara Rao became angry. He said, "It is now your duty to lead the Party. If you do not wish to do your duty, why are you here? You can go anywhere, Go to the Himalayas. But this is not the place for you. Yes, please go away." Rao was shouting in fury. Finally, with great effort, Patel had to persuade Rajaji.⁴⁷ Rajaji became a Central Minister and later the Chief Minister of a state. When he felt that his work was over, he promptly laid down office. When he started the Swatantra Party he was a very old man.⁴⁸ Rajaji wanted no position for himself. Building up a new party meant hard work; he could expect no personal gain. But he felt that in a democracy there should be a strong opposition party. If there is no such party, the Government would become irresponsible.

So he started and nursed and built up the new party.⁴⁹ It was only once that Rajaji went outside India. Representing the Gandhi Peace Foundation, he visited Britain and the United States of America in 1961.⁵⁰ At that time, he was 83 years old. The old sage went out only to utter a few words of wisdom. Powerful nations of the world were competing among themselves; they wanted to make atom bombs and even more destructive weapons. Rajaji was troubled. He thought that if it went on, all mankind would be destroyed. So he wished to warn that even the most powerful nation must consider the welfare of humanity at large. Rajaji went as the leader of a mission, which

wanted to appeal, that suicidal atomic experiments should stop. He talked to the then President of the United States, John F. Kennedy, for forty-five minutes. Kennedy later said that the discussion brought him the great influence of a pure and gentle culture. Rajaji was a person of the highest integrity and self-sacrifice. Shortly speaking, Rajaji was an asset to India. Rajaji's statesmanship laid the foundations of India's parliamentary system. His loveable and laudable characteristics and intelligence alone elevated him to the highest level in the field of politics.

Endnotes and References

- 1 S.Krishnaswamy, *The Role of Madras Legislature in the Freedom Struggle 1861-1947*, New Delhi, 1989, p.3.
- 2 P. Rajaraman, *Chennai through the Ages*, Chennai, 1997, p.47.
- 3 R.C. Majumdar, *Main Current of Indian History*, New Delhi, 1996, p. 129
- 4 Rajmohan Gandhi, *The Rajaji Story 1937-1972*. Vol. 11, Bombay, 1984, p.33.
- 5 R.C. Agarwal, *Constitutional Development of India and National Movement*, New Delhi, 1986, p.15.
- 6 P.C. Roychaudhury, *Gandhi and Rajaji*, Souvenir, Tiruchengode, 1971, p.184.
- 7 *The Hindu*, 23rd February 1921.
- 8 C.J.Baker, *The Politics of South India 1920-37*, New Delhi, 1976, p.247.
- 9 *Report on Civil Disobedience Movement Madras, 1930-31*, Madras, 1931, p.157.
- 10 Rajaji, (et.al), *Andraya Ninaivugal, Vedarnyam Uppu Satyagraha Charithiram* (Tamil), Chennai, 1950, p 23.
- 11 *Ibid.*, p.171.

- 12 P.C.Roychaudhury, , *op.citp.* 181.
- 13 G.T. Boag, *Madras Presidency 1881 - 1931*, Madras. 1933, p.44.
- 14 *The Hindu*, 8th March 1921.
- 15 D.J. Arnold, *Nationalism and Regional Politics in Tamil Nadu*, New Delhi 1920-1937. p. 341.
- 16 Rajmohan Gandhi, *op.cit.*, p.112.
- 17 P.C. Roychaudhury, *op.cit.*, p.188.
- 18 N.Perumal, *Rajaji: A Biographical Study*, Calcutta, 1948, p.64.
- 19 G.T. Boag, *op.cit.*, p.57.
- 20 K. Rajayyan, *History of Tamil Nadu 1565-1982*, Madurai, 1982, p. 182.
- 21 S.Krishnaswarny, , *op.cit.*, , p.43.
- 22 Rajmohan Gandhi, *op.cit.*, p.121.
- 23 T. Sadasivam, *Rajaji-A Garland of Tribute*, Madras, 1967, p.33.
- 24 T.S.Kaliaperumal, *Nattukku Ulaitha Nallavar (Tamil)*, Madras, 1970, p.67.
- 25 Shankar Ghose, *Modern Indian Political Thought*, New Delhi, 1984, p.349.
- 26 K.T.Narasimhachari, *C.Rajagopalachari: His Life and Mind*, New Delhi, 1978, p.87.
- 27 N.Perumal, *op.cit.*, p.67.
- 28 N. Arivalagan, *op.cit.*, p.113.
- 29 David Arnold, *The Congress in Tamil Nadu*, New Delhi, 1977, p. 183.
- 30 N.Perumal, *op.cit.*, p.125.
- 31 *Thoughts of Home Ruler; Official Congress Report*, 1890, p.69.
- 32 Rajmohan Gandhi, *op.cit.*, p.104.
- 33 Felton Monica, *I Meet Rajaji*, London, 1962, p.67.
- 34 *Madras Administrative Report*, 1953-1 954, p.33.
- 35 D.Sadasivam, *The Growth of Public Opinion in the Madras Presidency*, (1858-1909), Madras, 1974, p. 126.
- 36 Copley, *Rajagopalachari: Gandhi's Southern Commander*, Madras, 1986, p.120.
- 37 P.C. Roychaudhury, *op.cit.*, p.188.
- 38 C. Rajagopalachari, *Indian Prohibition Manual*, Madras, 1931, p.25.
- 39 *Madras State Administrative Report*, 1955-56, Part I, p.7.
- 40 *Annual Report of Constitutional Reforms*, Madras, 1919, p.11.
- 41 P.C.Roychaudhury, *op.cit.*, p.186.
- 42 Rajmohan Gandhi, *op.cit.*, p.128.
- 43 *Madras Administrative Report*, 1951-1 953, p. 17.
- 44 *Confidential Forthnightly Report of the Chief Secretariat to Home Secretary*, *Home Political*, 3 November, 1937, p.420.
- 45 D.J. Arnold, *Nationalism and Regional Politics in Tamil Nadu*, New Delhi 1920-193, p.122.
- 46 M.V. Pylee, *Constitutional History of India 1600-1950 A.D*, New Delhi, 1984, p.49.
- 47 *The Hindu*, 8th, December 1953.
- 48 R.L. Hardgrave, *The Dravidian Movement*, Bombay, 1965, p.20.
- 49 *Ibid.*, p.22.
- 50 V.Srinivasan, *Great Leaders of India*, Vol.I, Madras, 1976, pp.78-79.

Existence of Dowry System among Nairs in Kerala

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Abstract

The Dowry system in Kerala, a state known for its progressive literacy rates and matrilineal traditions in some communities, remains a critical social issue. This practice, though legally prohibited in India, persists as a deep-rooted cultural norm. Historically, dowries were linked to property rights and social alliances, but they have evolved into a burden for many families, often leading to financial strain, gender-based discrimination, and even violence.

Keywords:-Marumakkathayam, Stridhana, Talikettu Kalyanam, Sambandham

Introduction

Marriage is a very important social institution. This institution developed along with the socio economic progress of mankind. It has outgrown the basic need of satisfying psychophysical hunger. Its purpose is not merely to give companionship and joy to the men and women who get married. Marriage is a contract to ensure stability between men and women in the procreation and upbringing of children. Also, it defines the nature of relationship between husband and wife and their duties to their children. In the book, *“Principles of Marumakkathayam with a commentary in the Nair Regulation”*. M.P Joseph refers to concept of marriage. Marriage is an institution which originated and developed with the evolution of human society. In the primitive stages of human society promiscuity was said to be the rule and each men and women was at perfect liberty to consort with anyone else without any conventional restraint. The Greeks, the Scythians, the Hindus, the Chinese, the Egyptians, in fact all the ancient societies passed through the stages of promiscuity into advancement to the present form of marriage with one man and one woman to the exclusion of all others¹

In India, marital relation of different religious groups is being governed by their respective law books. These laws and regulations describe the form and cultural elements involved in it. The custom of giving presents at the time of marriage was common in India. Offering some gift to the girl was considered as a symbol of love towards the daughter. The gift gradually came to be known as ‘Stridhana’(dowry), ‘Stri’ means women, ‘dhana’ means wealth. Stridhana means wealth of women, the wealth brought by the girl at the time of the marriage²

In our country, usually the families of both girl and the boy have involvement in the marital alliance. It became a custom among many to give gifts in the form, of cash or kind. This was usually done by the parents of the girls and in some cases by the boys parents as the culture required. This was not compulsory in the past. But today this system of dowry has become a well-established system which is connected with marriage custom among different communities in India. The Nair’s of Kerala, a historically significant matrilineal community, had unique social and cultural practices. Though traditionally matrilineal, where lineage and inheritance were traced through

women, the dowry system—prevalent in other parts of India—was less prominent in earlier times. However, over the centuries, socio-economic changes and the influence of external communities led to the dowry system making inroads into Nair society.

Matrilineal System (Marumakkathayam): Inheritance passed through the female line, and the family was centered around the maternal home (*tharavadu*). Women had significant property rights, reducing the need for dowry as a means of securing financial stability for daughters.

Sambandham System: Marriages were informal alliances that did not always necessitate a financial exchange. Men typically stayed in the wife's household, further emphasizing the matrilineal tradition.

For Nair's, one of the major communities in Kerala, dowry was not all a factor for marriage till recently. At present many among them find it difficult to settle marriage without dowry. Nair caste is one of the prominent castes in Kerala. According to 1981 census 58.15% of the population are Hindus³. They are next to the largest Caste among Hindus in Kerala and holds a fairly high ritual status. In the traditional system they were attached to the royal family and Nambudiri Brahmins through hyper games alliances. Nair's were the largest land holders in the state. But the dominance of Nair's started declining with the dawn of the 20th c.

The Nair's are divided into several subcastes according to their occupation. Each subdivision performed a separate function. In general, the Nair's are agriculturalist and soldiers in the traditional society. This does not mean that all Nair's were soldiers for they were not. There is evidence that only certain sections of the Mayer Caste the great majority of Nair's probably spent

some time under arms⁴. Nair's rank high in the social hierarchy of Kerala. They come next to the Kshatriyas. Broadly speaking the Nair's rank after the Namboothiri's in Malabar and they occupied the same position in the Princely State of Kochin and Travancore. "Marriage and Morals generally go together. Kerala has evolved through the ages its own marriage customs and code of morals. The Aryanization of Kerala brought about some changes in the institution of marriage and code of morals⁵.

The Chola Chera War which brought about significant social and economic changes also and its defects on marriage customs and code of morals. Nair marriage system had been undergoing many changes in its both internal as well as external function with regard to the family and its functions. In the past there were two institutionalized forms of marriage. One was between a pre puberty girl and a man which was known as Talikettu Kalyanam. The second was with a mature woman and a mature man of status equal or superior to her own which was known as Sambandham⁶. Sambandham was a form of marriage practiced among Nair's in Kerala. Sambandham was a social contract by which a man and a woman surrender their sexual rights to each other. Sambandham was a term most widely used for the marital relationship of a Nayar woman. Today some of the old Nayar people use the word Sambandham for marriage.

Women in the Vedic period enjoy a very high status. Women had equal rights with men, women were men's friend, his co-worker and never his inferior, and she had enjoyed the property right and access to the property of her father and husband. Even Vedic hymns were composed by women. In matters of selecting their partners in marriage, women had equal rights. Prepuberty marriages were unknown and there were references

made to swayamvara marriages, where the women were given the opportunity to select their partners⁷.

During the British period young men of rich families got English Education and thus got good jobs, hence their social and economic positions improved. Gradually, the educated well employed youth became a good commodity in the marriage market⁸. Thus the dowry system became positive evil of great magnitude. The parents of the girl considered, the dowry that they offer the boy as a token of gratitude for his kindness in accepting their daughter. The kind and amount of dowry varied according to the ability of the bridegroom and his economic and social status of his family⁹.

Today in all states, among all communities in India the dowry system is deep rooted and has become one of the main factors of marriage. Consequently the lifetime earning of many low income group parents has been spent entirely on the marriages of their daughters. Some of them have borrowed money on heavy interest, some others have sold their property to meet the need. Unsuccessful parents wait long in agony to get a match for their daughters. Some of the girls remain unmarried due to the inability to raise dowry for their marriage. No effective measures were found to be taken to check this evil during the British period. An anti dowry league was started in the first sessions of the Madras Students Convention. Similar leagues were started in Northern India in 1914¹⁰.

Kerala the highly educated state in India, seems to be the worst regarding the practice of dowry. In Kerala, recently this social evil spread very rapidly. In the earlier period the Nair's followed the Marumakkathayam law of succession, the law which regulated succession through female line. The senior male member called, the Karana van was entitled to the full possession of the property and was absolute in its managements. The junior

members had claimed to the family and its property. All the members in the tharavad had equal share when partition took place. The joint family system of Nair's had disappeared with the advancement of urbanization. When the Nair joint families started to pave way to nuclear families, the newly wedded couples needed financial security. The Nair girls are entitled to get a share of the family property. The parents of the bride gave it to her at the time of marriage itself. Soon it became a practice among the Nair's¹¹.

Responses were collected about the factors that promoted the rapid growth of dowry in the Nair's community. Economic factor, socio economic factors like education and employment of the boys and changes in family structure seem to be the major promoting factors in the development of dowry. In the past Nair marriages were characterized by preferential marriage between Murappenu and Muracherukkan. But marriage among Nair's today was characterized by village exogamy. The Karana van's role became belittled and gradually parents and partners started playing a more important role in the arrangement of marriages. Most of the marriages today are being arranged with the help of middlemen. There is fixed brokerages to the brokers. Today after 1975 the brokers were considered as the mediators of the marriage and the parents started to seek their existence. All the respondents are of the opinion that parents today have a competitive mentality to save money. And also there is a competition among parents to give a sizeable dowry and arrange the marriage of their children. Parents of the boys wish to have matrimonial alliances with girls of highly reputed families who can offer good dowry. The status of the boy in the society is measured with the amount of dowry which he gets from his inlaws. The amount of dowry rates his value in the society marrying a girl from a comparatively high

family is considered to be a matter of prestige for the boy and his parents. Parents of girls rush to the parents of highly educated and well employed boys offering a big dowry. In this regard, a kind of competition among the parents can be seen which paved the way for the rise in the rate of dowry¹²

Discussions on dowry become more and more evident in the arrangements of Nair marriages today. A commercial motive began to creep into the nair marriages as in the marriages of certain other communities. Deliberate efforts have been made by the Government of India in order to abolish the practice of dowry in all communities in India and have succeeded in generating collective society to the evils of dowry and to the borrower of dowry death. As a result of this effort dowry prohibition act was passed in 1961¹²

The dowry system which originated in the beginning of the 20th century among rich nair's became vigorous after the formation of the State of Kerala and spread rapidly among the common people also. The system has become and many cases were forced to give more than the rightful share for the girl before marriage. The contradiction is that when this evil spread out in other communities the nair's of Kerala were free from its grip, when other communities felt to the necessity of eradicating it and the State passed laws in 1961 as Dowry Prohibition Act for its eradication, this evil practice crept into nair community and seems firmly rooted there. It is found that dowry started indirectly and became direct mostly in the form of gold, property and cash. Gold is considered important to decorate the nair brides. The status of the two families both girls and boys is measured by the quantity of gold given to the bride. In the south there are people who had given more than 100 sovereigns in the form of ornaments, while in the north the average

quantum of gold given to the girls are 10 sovereigns. Another form of dowry is cash. For south Kerala Nair's, cash as dowry is only a recent origin, while giving cash as dowry started in the north Kerala in the year 1920. Today to give cash along with other items is a usual phenomenon among the south Kerala Nair's also. In the immovable property as mentioned earlier are included land and house. In the north since large land owning classes is very few giving land as dowry is not in practice. In south the major part of the dowry constitutes land 66.66% of the people in the south had given land as dowry. Another major part of dowry today is house. It is a new trend today to give vehicle under the list of dowry. In the middle generation there was no one who had received car as dowry¹³.

Society is a changing mechanism and so all the institutions in the society have been undergoing changing. Nair marriage as an institution has been evolved and developed gradually. The practice of dowry is not uniform in nair's community as it varies from region to region and class to class. The practice of giving dowry is more prevalent among the Nair's of South Kerala when compared to that of North kerala¹⁴.

Conclusion

In summary, while the Nair's initially resisted the dowry system due to their matrilineal roots, historical and societal changes have made it a reality for many. However, Kerala remains a state with high literacy rates and active social movements, and efforts continue to curb the dowry system's impact.

Endnotes and References

1. Joseph M.P, *Principles of Marumakkathayam Law with a commentary in the Nair regulation*, Kottayam, Church missionary society, 1918, p.12

2. *Census of India*, Kerala 1981
3. Jeffrey, Robin; *The decline of Nayar dominance and society and politics in Travancore 1847 – 1908*, New Delhi, India; Vikas publishing house, 1976, P.75
4. Fuller, C.J; *Nayars Today*, New York; Syndics of the Cambridge University press, 1976, p.16
5. Fawcett, F; *Nayars of Malabar*, New Delhi, India, educational service, 1901, p.185
6. Menon, A. Sreedhara; *A survey of Kerala history*, Kottayam, India, National Book Stall, 1970. p.75
7. *Ibid.*, p.93
8. Kurup, K.K.N; *Modern Kerala (studies in social and agrarian relations)* Delhi, India, Mittal Publications, 1988, p.18
9. Iyer.L.KAnanthakrishna; *Cochin tribes and cast, VOL 1 & 2*, Madras, India, Higginbotham and Co. 1909, 1912 , p.23
10. Devadra, Kiran; *Status and Position With Social reference to Women in Contemporary India*, New Delhi, Vikas Publishing house 1985, p.17.
11. Logan, William; *Malabar*, Madras, govt press, 1951, p.106.
12. Aiya, v.Nagam; *Travancore State Manual, Vol. II*, Travancore govt press, 1906, p.88.
13. Nayar Service Society Charitrgrandham (Mal), (History of the Nayar Service Society) Changanacheri, India, N.S.S Press, 1972, p.18.
14. Pillai, T.K.Velu; *Travancore State Manual, Trivandrum, India*, The Travancore govt Press, 1940, p.28.

Scientometric Analysis and Visualization of the Journal - *Studies in History*

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Abstract

Bibliometric analysis is an approach adopted by researchers to understand the various analytics such as year-wise publications, their citations, most impactful authors and their contributions, identification of emerging keywords etc. This study on bibliometrics investigates the patterns of publication in the journal Studies in History from 1985 to 2023. This research emphasizes the considerable influence of journal Studies in History in history subject field, demonstrated by highly cited articles and the notable involvement of the major Indian organizations such as Jawaharlal Nehru University, University of Delhi, University of Calcutta, Aligarh Muslim University, University of Hyderabad, Nehru Memorial Museum Library etc. Nonetheless, the findings point to a regional focus of contributions mainly from India, suggesting a lack of broader international collaboration.

Keywords: Bibliometrics, Scientometrics, History Journal, *Studies in History*

Introduction

Studies in History is a leading peer-reviewed journal that has significantly expanded historical research in India. It integrates political, social, economic, and cultural aspects of history, focusing on neglected periods, regional problems, and historical developments in countries outside India. The journal encourages innovative approaches and challenges established narratives, providing valuable insights into various types of history and contributing to the discipline's advancement. The journal aims to publish original, high-quality research that enriches the field of history with new information, arguments, and perspectives. It emphasizes new methodologies and interdisciplinary approaches, broadening the scope of historical

inquiry. The journal's commitment to exploring under-researched areas and promoting significant debates makes it an essential resource for historians and researchers globally.

The journal's academic impact is evaluated through the Cite Score and SC Imago Journal Rank (SJR), with a current Cite Score of 0.400 and a SJR score of 0.124. Its editorial focus on inter disciplinary and innovative approaches has made it a critical space for reshaping historical research in India and beyond. Its international scope further enhances its appeal to a global audience. With its rigorous peer-review process and commitment to advancing historical knowledge, *Studies in History* remains an indispensable resource for those engaged in the study of history.

A branch of bibliometrics, a crucial instrument for evaluating and analysing scientific publications,

is scientometrics. It offers key research questions to gauge the influence of scholarly publications and research papers, comprehend scientific citations, and serve as a gauge of scholarly production and quality. Measuring the influence of research publications and journals and comprehending academic citations are the primary research areas (Leydesdorff&Milojevic, 2013). A collection of techniques known as scientometric analysis includes both qualitative and quantitative evaluations of research productivity and scientific outputs that can be used to identify present trends or predict future ones (Mohammadi et al., 2019). The scientific effect of journals, authors, research institutes, research universities, highly cited sites, highly cited items, and patterns of scientific collaboration may all be measured with it. This study on bibliometrics investigates the patterns of publication in the journal *Studies in History* from 1985 to 2023.

The significant growth and diversification of historical scholarship in India in recent years is reflected in *Studies in History*. The traditional focus on political history has been incorporated into a more comprehensive framework that gives social, economic, and cultural history equal weight. The journal looks at regional issues and highlights some of India's underappreciated historical eras. Articles about nations other than India are also published in the journal. It offers a platform for articles about the literature of many historical genres as well as contributions that question conventional wisdom on persistent problems.

Literature Review

The current condition of research published in the *Songklanakar Journal of Science and Technology* (SJST) was examined by Silwattananusarn and Kulkanjanapiban (2021), who used scientometric analysis and visualisation analysis with VOSviewer for both quantitative and

qualitative evaluation. Based on data from Scopus from 2006 to 2019, 1, 619 documents make up the data for this analysis. Bibliometric indicators in VOSviewer software were used to identify and visualise the number of SJST papers, the most cited publications, year-wise distributions, authorship patterns, country-wise distribution, top-cited authors and their affiliation and keywords, the distribution of keywords, and author co-citation maps during the designated period. The report highlighted SJST's trends and current state of development.

Khan, et al. (2021) explored a bibliographic analysis and overview of the publications that have appeared in the *International Endodontic Journal* (IEJ) from 1967 to 2020 based on Elsevier's Scopus database. Open-source visualization software Gephi and Biblioshiny (version 2.0) were employed for data visualization and analysis. According to the study, 3739 records with citation and bibliographic information were chosen and obtained in order to conduct a bibliometric analysis. According to the bibliometric analysis, the IEJ has increased in terms of influence and productivity. Although there have been slight declines in citations in recent years, the journal has historically been linked to a rise in the quantity of manuscripts published and the citations they have drawn. Bibliographic coupling of the IEJ articles revealed that the major research themes published in the journal include 'endodontics', 'root canal treatment', 'calcium hydroxide', 'apical periodontitis', 'mineral trioxide aggregate', 'microbiology', 'cyclic fatigue', 'cone-beam computed tomography' and 'micro-computed tomography'.

One of the Q1 category journals that publish articles across a range of topics is F1000Research. Using VOS-viewer and the Biblioshiny (R-studio) interface, Kumar, Shandilya, and Srivastava (2023) performed bibliometric analysis to extract

the F1000Research travel information. Since its launch in 2012, the F1000Research journal has published 5767 articles till the end of 2022. The majority of the published publications are in the medical sciences, including immunology & pharmacology, toxicology & pharmaceuticals, genetics & molecular biology, and biochemistry. Numerous studies, including those of publications and citations, top authors, institutions, countries, most common keywords, bibliographic coupling between authors, nations, and documents, developing research themes, and trending keywords, were conducted in order to comprehend the research journey. According to the analysis, COVID-19 is the most frequently occurring keyword and the United States is the largest contributor.

Using bibliometric analysis, Vaishya et al. (2023) investigated the current research trends published by the International Orthopaedics (INOR) magazine. The International Orthopaedics journal's 1977–2022 articles were examined using the Scopus database. MS Excel and VOSviewer software were used to identify the major participants, including nations, institutions, and authors, and examine the cooperation relationships between them. Of the 107 nations from which they found 7645 publications, 40 were from Europe and 32 from Asia. France, Germany, and China made the largest contributions. In terms of citations, the Netherlands, Canada, and Switzerland had the most effects.

Objectives

The specific objectives of the study are:

- To depict the chronological distribution of articles published in the journal *Studies in History*
- To determine the top ten highly cited articles of the journal *Studies in History* in Scopus

- To determine the most productive authors, institutions, and countries of the articles published in the journal *Studies in History*.
- To determine the keywords clustering of the articles published in the journal *Studies in History*.

Methodology

The study adopts a bibliometric approach to analyze a specific journal within the domain of History. To acquire the requisite dataset, a refined search was executed on November 5, 2024 within the Scopus database. The search query employed was as follows:

EXACTSRCTITLE ("Studies in History")
AND (LIMIT-TO (EXACTSRCTITLE, "Studies
In History"))AND (LIMIT-TO (DOCTYPE, "ar"))

The bibliographic records of 396 articles published in the journal *Studies in History* were subsequently retrieved and saved as a CSV file. The analysis and visualization of this data were conducted employing Microsoft Excel and VOSviewer software developed by Van Eck and Waltman (2010).

Analysis and Interpretation

Chronological Distribution of Articles Published in the Journal - *Studies in History*

The figure 1 displays the trend of articles published per year in the journal *Studies in History* from 1985 to 2023. There are 396 articles of the journal in the Scopus database in the period 1985 to 2023. Peak in publication are noticeable in the year 2002, where the number of documents reached around 16. Notable dips occur, such as in 1988 and in 2017, where the number of documents is at its lowest, that is 4 and 2 respectively. After a significant drop in 2017, the publication rate has recovered gradually, stabilizing at around 10 documents per year between 2021 and 2023.

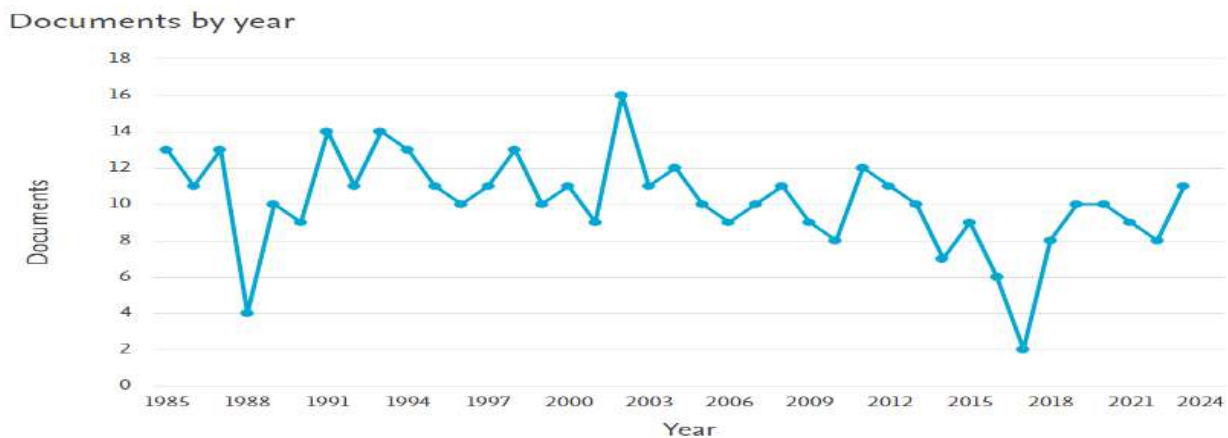


Figure1: Chronological Distribution of Articles Published in the Journal *Studies in History*
(Source: Scopus Database)

Top Ten Highly Cited Articles Published in the Journal

The top 10 most cited articles published in the journal during the period 1985-2007 received a total of 460 citations with a citation range of 36–67 (minimum 36 and maximum 67) in Scopus. Table 2 lists the top cited 10 papers. The first ranked most cited paper with 67 citations in Scopus was “The Hindu wife and the Hindu nation: Domesticity and nationalism in nineteenth century Bengal”, authored by Sarkar, T (1992). Thesecond-ranked most cited paper with 66 citations was “Settle, Mobilize, Verify: Identification Practices in Colonial India” by

Singha, R (2000). The third most cited paper with 50 citations was “Coolies and Colliers: A Study of the Agrarian Context of Labour Migration from Chotanagpur, 1880-1920” by Mohapatra, P. P (1985).

Fig. 2 shows the map of highly cited papers (75articles with at least 10 or more citations) published in the journal during the period 1985-2023. The name of the first author and year of publication are shown on the spheres, whose size is proportionate to number of citations and colour represents the year of publication of the highly cited papers. Yellow colored circles represent relatively newly published most cited papers.

Table 1: Ten Highly Cited Articles Published in the Journal

Rank	Title	Authors & Affiliations	Year	No. of Citations
1	The Hindu wife and the Hindu nation: Domesticity and nationalism in nineteenth century Bengal	Sarkar, T Ashoka University, Sonipat, India	1992	67

2	Settle, Mobilize, Verify: Identification Practices in Colonial India	Singha, R. Jawaharlal Nehru UniversityThe institution will open in a new tab, New Delhi	2000	66
3	Coolies and Colliers: A Study of the Agrarian Context of Labour Migration from Chotanagpur, 1880-1920	Mohapatra, P.P. University of DelhiThe institution will open in a new tab, New Delhi, India	1985	50
4	'Restoring the Family': Wife Murders and the Making of a Sexual Contract for Indian Immigrant Labour in the British Caribbean Colonies, 1860-1920	Mohapatra, P.P. University of DelhiThe institution will open in a new tab, New Delhi, India	1995	47
5	Indigenous medicine and cultural hegemony: A study of the revitalization movement in Kerala	Panikkar, K.N. Jawaharlal Nehru University, New Delhi, India	1992	47
6	The Centrality of Central Asia	Frank, A.G. Institute for Socio-Economic Studies of Developing Regions, Netherlands	1992	40
7	Between Orientalism and Historicism: Anthropological Knowledge of India	Ahmad, A. Rutgers University–New BrunswickThe institution will open in a new tab, New Brunswick, United States	1991	38
8	Delhi's Belly: On the Management of Water, Sewage and Excreta in a Changing Urban Environment during the Nineteenth Century	Mann, M. Humboldt-Universität zu Berlin, Berlin, Germany	2007	36
9	The Raj and the natural world: The war against 'dangerous beasts' in colonial India	Rangarajan, M. Nehru Memorial Museum and Library, New Delhi, India	1998	36
10	Housing the Poor in a Colonial City: The Bombay Improvement Trust, 1898-1918	Kidambi, P. University of Leicester, Leicester, United Kingdom	2001	33

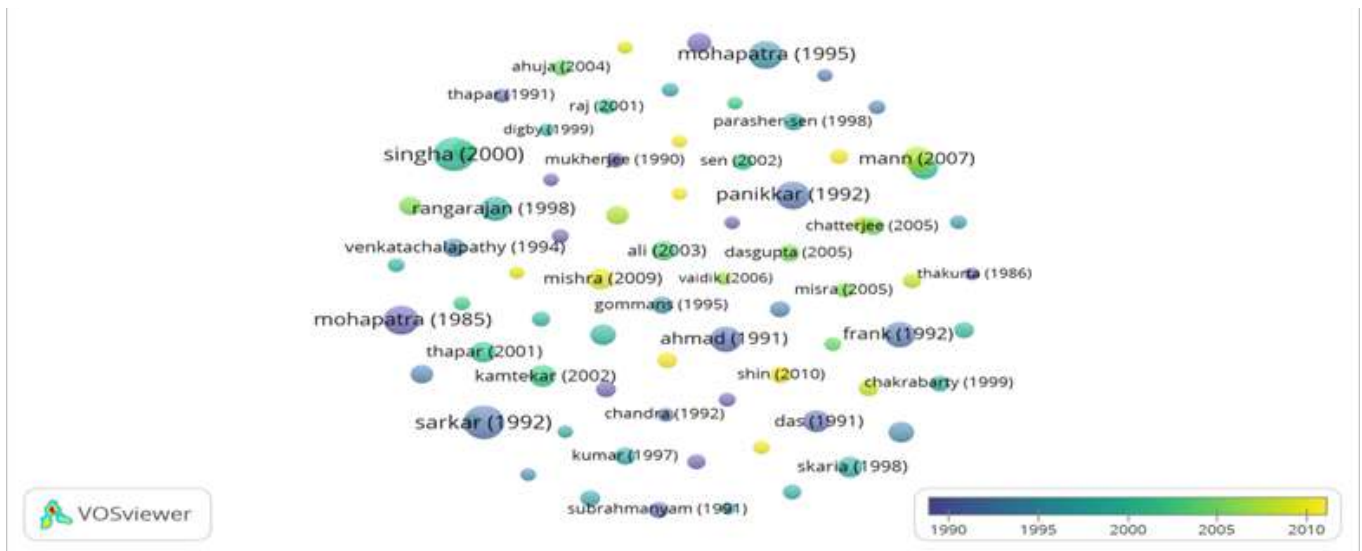


Figure 2: Time line View of Highly Cited Articles Published in the Journal

Most Prolific Authors of the Articles in the Journal

Table 2 provides a concise summary of the six most prolific authors, each of whom authored a minimum of 4 articles in the journal. To offer a comprehensive overview of each author's scholarly output, the table encompasses various bibliometric indicators, including author names, their affiliation, the number of papers authored and citation counts.

The top six exceptionally prolific authors in the journal were as follows:

1. Najaf, H, affiliated with the Jawaharlal Nehru University, New Delhi contributed 7 papers.
2. Chojnacki, C, hailing from the Université Jean Moulin, Lyon, France authored 6 papers in the journal.
3. Gurukkal, R, representing Kerala State Higher Education Council, Thiruvananthapuram, Kerala presented 5 papers
4. Sarkar, T, Ashoka University, Sonipat, India, Subrahmanyam, S, University of California, Los Angeles, United States and Chakrabarti, K, Jawaharlal Nehru University, New Delhi, India authored 4 papers each.

Table 2: Most Prolific Authors of the Articles Published in the Journal

Author	Affiliation	Number of papers	Citations
Najaf, H	Jawaharlal Nehru University, New Delhi, India	7	28
Chojnacki, C	Université Jean Moulin, Lyon, France	6	27
Gurukkal, R	Kerala State Higher Education Council, Thiruvananthapuram, India	5	35
Sarkar, T	Ashoka University, Sonipat, India	4	86
Subrahmanyam, S	University of California, Los Angeles, Los Angeles, United States	4	33
Chakrabarti, K	Jawaharlal Nehru University, New Delhi, India	4	15

Highly Cited Authors of the Articles in the Journal

Among the authors who contributed articles, the top six authors (Table 3) who demonstrated the highest influence, as measured by citations per article, were as follows:

1. Mohapatra Prabhu P associated with the University of Delhi, New Delhi, India exhibited a remarkable citations 102 for his 3 articles (average citation 34).
2. Singha, R, from the Jawaharlal Nehru University, New Delhi, India demonstrated a citations-per-article score of 31.33 for 3 articles (total citations 94).
3. Rangarajan, Mahesh, from Nehru Memorial Museum and Library, New Delhi, India achieved a notable score of 23 in terms of citations per article for 2 articles (total citations 46)
4. Sarkar, T from Ashoka University, Sonipat, India, achieved a remarkable citations-per-article score of 21.5, with a total of 86 citations for 4 articles.
5. Frank, AnfreGunder of the Institute for Socio-Economic Studies of Developing Regions, Amsterdam, Netherlands, achieved a notable score of 20.5 in terms of citations per article for 2 articles (total citations 41).
6. Panikkar, K N associated with the Jawaharlal Nehru University, New Delhi, India, achieved 16.67 citations per article score with a total of 50 citations for 3 articles.

Table 3: Most Influential Authors of the Articles Published in the Journal

Author	Affiliation	No. of Articles	Citations	Average Citations
Mohapatra Prabhu P	University of Delhi, New Delhi, India	3	102	34
Singha, R	Jawaharlal Nehru University, New Delhi, India	3	94	31.33
Sarkar, T	Ashoka University, Sonipat, India	4	86	21.5
Panikkar, K N	Jawaharlal Nehru University, New Delhi, India	3	50	16.67
Rangarajan, Mahesh	Nehru Memorial Museum and Library, New Delhi, India	2	46	23
Frank, AnfreGunder	Institute for Socio-Economic Studies of Developing Regions, Amsterdam, Netherlands	2	41	20.5

Most Prolific Institutions Contributed Articles in the Journal

Among the papers analyzed, the corresponding authors were associated; the Jawaharlal Nehru

University emerged as the most prolific contributor with 87 affiliations, followed by the University of Delhi, which accounted for 47 affiliations, and the University of Calcutta with 14 affiliations (Figure 3).

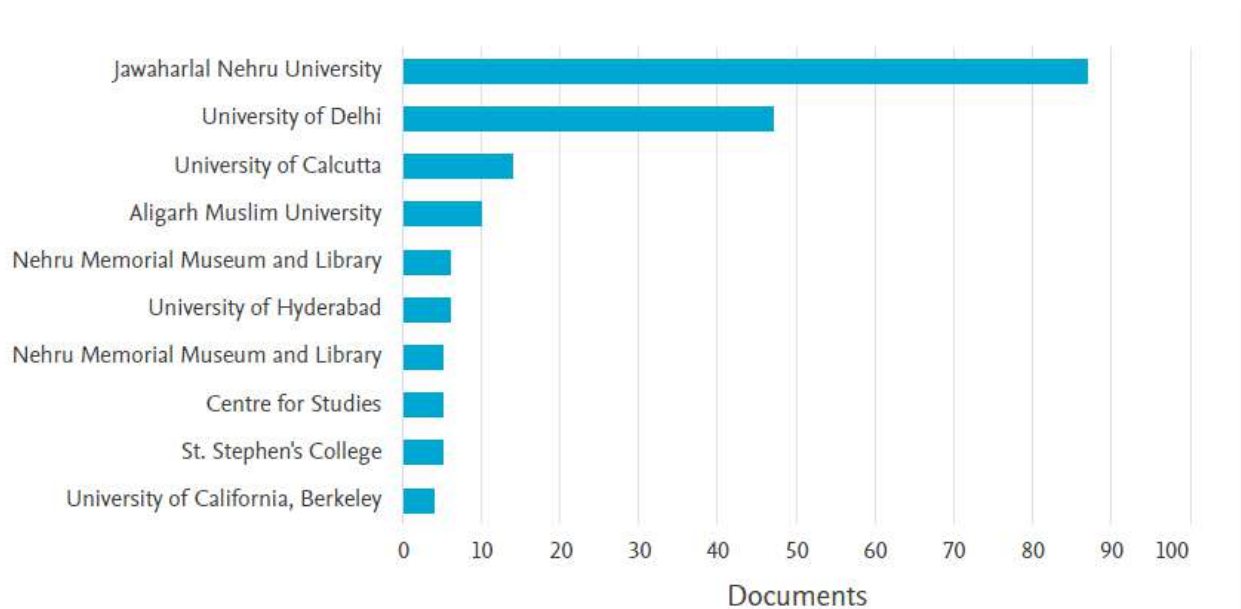


Figure 3: Most Prolific Institutions Contributing Articles in the Journal
(Source: Scopus Database)

Most Prolific Countries Contributed Articles in the Journal

Studies in History has attracted the interest of many researchers worldwide. Authors from 19 countries made contribution to the journal. Table 4 shows the seven most prolific countries

contributing articles. The most productive countries in the journal are naturally headed by India with 249 articles followed by United States (71), United Kingdom (18), and France (12). Remaining countries contributions are less than 10.

Table 4: Most Prolific Countries Contributing Articles in the Journal

Country	No. of Articles	Citations	Average Citations
India	249	1417	5.69
United States	71	504	7.09
United Kingdom	18	113	6.28
France	12	48	4
Germany	8	84	10.5
Australia	6	31	5.17
Italy	5	18	3.6

Occurrence of Keywords in the Articles of the Journal *Studies in History*

Out of the 699 author keywords employed across the articles, figure 4 shows the visualization of 71 keywords' co-occurrence networks with a threshold of minimum of two occurrences. Notably, 10 keyword clusters emerged, incorporating 71 keywords in total.

Ten keywords—Christianity, Delhi, sultanate, conversation, famine, friendship, imperialism, Islam, missionary, satyagraha, and secularism—are included in the first cluster, which is underlined in red. The second cluster, which is green in colour, contains eight keywords: division, property, Hindu, independence, India, integration, oral history, and evacuee property. Eight terms are included in the third cluster, which is shown in blue. These include caste, community, criminal tribes, family, gender, identity, protest, and settlement. Eight keywords—genealogy, gotra, inscriptions, migration, nationhood, panchayat, religion, and ritual—make up the fourth cluster, which has a yellow theme.

Seven terms, including “Calcutta,” “colonialism,” “custom,” “eighteenth century,” “labour,”

“Madras,” and “water,” are included in the fifth cluster, which is purple. Seven terms, including education, governmentality, Canada, Mysore, nationalism, sanitation, and swaraj, are included in the vibrant sky blue sixth cluster. Keywords like archaeology, artefact, civilisation, colonial, culture, and tribal are found in the orange seventh cluster. Five keywords are included in the brown eighth cluster: epic, Indian history, poetry, the Mahabharata, and Sanskrit. Dalit, Gandhi, Moonje, and non-violence are all part of the violet ninth cluster. Lastly, the tenth cluster consists of Portuguese, Iranian, Muslim, and sixteenth-century individuals.

An examination of the concurrent appearance of keywords produced the visual map of VOSviewer that shows keyword co-occurrences (Figure 5). The VOS viewer indicates that the most frequent occurrence of the keywords together occurred between 2009 and 2021. The terms that appeared most frequently in the journal's early articles are represented by the purple nodes. The most often used terms in newly released articles are shown by the green and light-yellow nodes.

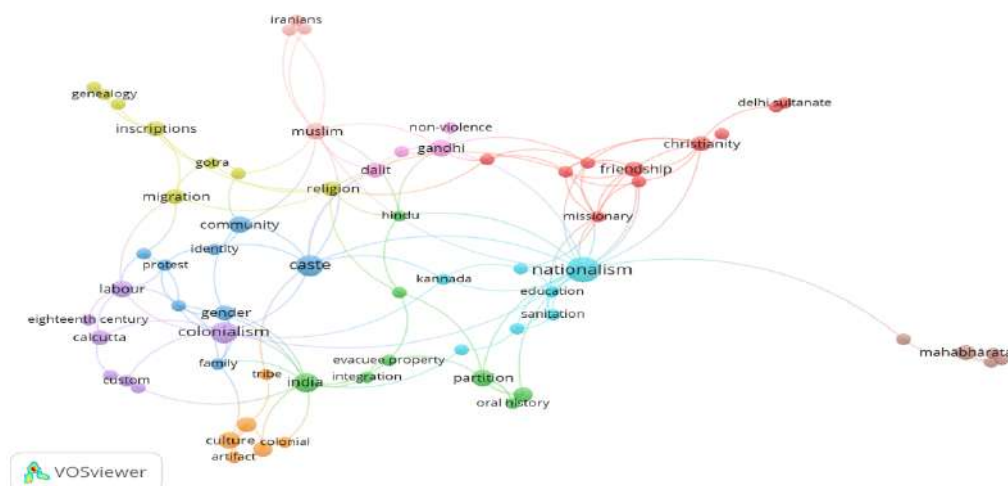


Figure 4: Keyword Co-occurrence Map (The frequency of the keywords is represented by the size of the nodes; larger nodes denote higher frequency. The proximity of the interactions between two nodes determines how thick the edges are. Keep in mind that the cluster to which the keywords belong is indicated by the colours of the keyword nodes.).

The analysis of the top 10 highly cited articles from *Studies in History* reveals significant insights into the journal's impact, thematic focus, and scholarly contribution over time. The top-cited articles illustrate the journal's commitment to publishing research that transcends traditional political history, embracing themes that explore social, economic, and cultural dimensions.

For instance, articles such as "The Hindu wife and the Hindu nation: Domesticity and nationalism in nineteenth-century Bengal" and "Restoring the Family: Wife Murders and the Making of a Sexual Contract for Indian Immigrant Labour" delve into gender, domesticity, and socio-political intersections, reflecting an emphasis on feminist historiography. Articles like "The Raj and the natural world: The war against 'dangerous beasts' in colonial India" and "Delhi's Belly: On the Management of Water, Sewage and Excreta" signify a growing interest in environmental and urban histories.

This thematic breadth underscores the journal's role as a platform for emerging interdisciplinary approaches, particularly in fields such as gender studies, labor history, environmental history, and medical anthropology. The journal's scope is not confined to Indian history alone but extends to transnational perspectives. Articles such as 'Restoring the Family' and The Centrality of Central Asia examine the colonial and global dimensions of historical processes, highlighting the interconnectedness of regions. The emphasis on underrepresented temporal and regional histories is also evident.

For example, the article entitled *Coolies and Colliers* explores labor migration in Chotanagpur during the late 19th and early 20th centuries. *Housing the Poor in a Colonial City* investigates urban challenges in Bombay during the colonial

period. These contributions demonstrate the journal's dedication to addressing neglected historical periods and geographic areas.

The authors of the top-cited articles are affiliated with prestigious institutions such as Ashoka University, Jawaharlal Nehru University, and the University of Delhi, underscoring the journal's prominence in attracting high-quality scholarship. Moreover, the inclusion of authors from international institutions like Rutgers University and Humboldt-Universität zu Berlin signals its global reach and appeal.

The citation counts indicate the enduring relevance and academic influence of the selected articles. For example, The most-cited article, *The Hindu wife and the Hindu nation*, has garnered 67 citations, reflecting its foundational impact on studies of domesticity and nationalism. Other articles, such as *Settle, Mobilize, Verify* and *Indigenous medicine and cultural hegemony*, show sustained interest in identification practices and indigenous knowledge systems, respectively. The relatively high citation counts of older articles, such as those published in the 1980s and 1990s, highlight their ongoing relevance in historical scholarship.

Several articles challenge traditional historiographical approaches. For instance, the article *Between Orientalism and Historicism* critiques anthropological knowledge and contributes to the re-evaluation of colonial narratives. Articles such as *Coolies and Colliers* and *Delhi's Belly* emphasize micro-historical and socio-environmental methodologies, enriching historical research frameworks.

Prominent authors affiliated with leading institutions, including Jawaharlal Nehru University and Ashoka University, contribute to the journal's global appeal. Scholars such as T. Sarkar (86

citations from 4 papers) and R. Gurukkal (35 citations from 5 papers) illustrate the journal's ability to attract impactful research. The inclusion of international contributors further emphasizes its global reach.

Citation patterns reveal the enduring relevance of older publications, underscoring the journal's long-term academic influence. Methodologically, articles challenge conventional historiography, embracing micro-historical and socio-environmental approaches, enriching the discipline's research frameworks. *Studies in History* exemplifies a robust platform for diverse and innovative historical research, bridging local and global perspectives, fostering interdisciplinary methodologies, and addressing neglected areas of history. Its sustained scholarly impact affirms its vital role in advancing historical scholarship.

Studies in History is a journal that focuses on social, economic, cultural, and political history, with a strong emphasis on critical historiography, gender studies, and postcolonial perspectives. The journal has 87 affiliations, with JNU being the most prolific contributor, with 87 affiliations. The University of Delhi, with 47 affiliations, is the second most significant contributor, with its well-established history department and diverse faculty expertise covering topics like labor history, environmental studies, and colonial governance. The University of Calcutta, with 14 affiliations, has a long tradition of producing research on Bengal's rich historical legacy. Institutions like Aligarh Muslim University, Nehru Memorial Museum and Library, and St. Stephen's College contribute to the journal's thematic diversity, such as Mughal history, archival research, and biographical studies. The University of California has made notable contributions internationally, reflecting the journal's global outreach and growing interest in Indian and South Asian history

among international scholars. The dominance of JNU and the University of Delhi in the journal's scholarly output indicates their centrality in the production of historical scholarship in India.

Studies in History, a journal focusing on Indian historical research, has received contributions from 19 countries. India leads the list with 249 articles, highlighting its mission to advance historical research within the country. The journal explores diverse themes such as cultural, political, economic, and social histories, often exploring underrepresented periods and regions. The United States follows with 71 articles, indicating robust engagement from scholars specializing in South Asian studies, global history, and postcolonial theory. The United Kingdom (18 articles) and France (12 articles) demonstrate Europe's continued interest in Indian history, likely influenced by colonial legacies and South Asia's role in global historical processes. British contributions often engage with colonial historiography and postcolonial studies, while French authors may bring perspectives rooted in cultural history, anthropology, and intellectual traditions.

The remaining countries, each contributing fewer than 10 articles, provide valuable insights into niche areas of historical research or comparative studies. The journal's strong presence of international contributions highlights its appeal beyond India and attracts research from leading global scholars. This dynamic enriches the journal's content by incorporating comparative methodologies, diverse theoretical frameworks, and transnational perspectives, highlighting the global relevance of Indian history in understanding broader historical phenomena. The geographical diversity of contributions to *Studies in History* demonstrates its pivotal role in connecting Indian historiography with global scholarly trends.

Emerging Trends and Future Scope in Historical Scholarship in *Studies in History*

The latest keywords from the journal *Studies in History* reveal an expansive and interdisciplinary approach to historical research, reflecting current scholarly preoccupations with inclusivity, cultural specificity, and the intersection of historical and contemporary issues. The journal appears to embrace a wide spectrum of themes that critically engage with marginalized voices, socio-political transformations, and evolving historiographical methods.

Emerging Trends

One of the most prominent themes is the exploration of marginalized communities, reflected in keywords such as *Adivasi*, *Forest people*, and *Criminal Tribes*. This focus underscores the importance of uncovering histories of underrepresented groups, their agency, and their interactions with dominant social and political structures. Similarly, cultural practices and intangible heritage are highlighted through terms like *Festivals* and *Custom*, indicating a shift toward studying localized traditions and belief systems.

The journal also revisits colonial and post-colonial histories through keywords like *East India Company* and *Colonialism*, exploring the economic, political, and cultural repercussions of colonial rule. This aligns with topics such as *State formation* and *Ideological shift*, which analyze the evolution of governance, ideologies, and the processes of modern state-building. Gender studies, represented by *Masculinity* and *Gender*, have gained traction, with an emphasis on the construction of identities and roles across different periods. Religion and ideology also feature prominently, with terms like *Hindu*, *Dharma*, and *Bodhisattva* pointing to the study of spiritual

practices and their influence on socio-political frameworks. Themes such as *Sanitation*, *Local self-government*, and *Property* further highlight a focus on civic administration, public health, and the interplay between governance and social reform.

Scope for Further Research

Given the breadth of themes, there is significant potential for future research. The histories of marginalized groups, including their oral traditions and ecological knowledge, could be explored in greater depth, particularly in the context of environmental history and sustainability. Comparative studies of gender and masculinity across cultures and time periods can offer nuanced insights into changing social norms.

The journal's engagement with colonial and post-colonial themes could expand into transnational perspectives, exploring India's connections with other regions during and after colonialism. Similarly, the intersections of religion, state formation, and ideological shifts provide fertile ground for interdisciplinary research, incorporating political science, sociology, and philosophy. Future studies could investigate the historical intersections of health, labor, and urban planning, shedding light on the socio-political implications of bodily regulation. The journal's commitment to diverse themes highlights its potential to address emerging questions, fostering innovative scholarship that bridges the gap between the past and the present.

Conclusion

Studies in History is a leading journal in the field of historical scholarship, focusing on interdisciplinary approaches and addressing a wide range of historical issues. Over the past four decades, the journal has evolved from a traditional political history journal to a platform for

progressive historical scholarship that engages with underrepresented areas of India's past while fostering innovative approaches to historical inquiry. The journal's publication activity between 1985 and 2023 has shown notable fluctuations, with peaks in certain years and dips in others. However, there has been a clear trend toward stabilization, with the journal consistently publishing around 10 articles per year from 2021 to 2023. This stability suggests a steady response to institutional and academic forces, affirming the journal's continued relevance in the scholarly community.

The analysis of citation patterns and thematic focus of the most-cited articles reinforces the journal's importance in advancing diverse historiographical approaches. The top-cited articles demonstrate the journal's commitment to feminist historiography and the exploration of gender, domesticity, and nationalism in historical contexts. Additionally, works such as *The Raj and the Natural World: The War Against 'Dangerous Beasts' in Colonial India* and *Delhi's Belly: On the Management of Water, Sewage, and Excreta* highlight the journal's embrace of environmental and urban histories, disciplines that have gained increasing scholarly attention in recent decades. The diversity of the journal's contributors speaks to its global reach and scholarly appeal. Authors affiliated with prestigious Indian institutions dominate the journal's publication activity, underscoring the central role these institutions play in shaping contemporary historical research in India. The journal's inclusion of international scholars from institutions like Rutgers University and Humboldt-Universität zu Berlin signals the journal's global academic engagement, enriching its content by introducing comparative methodologies and diverse theoretical frameworks.

The citation analysis also reveals that *Studies in History* has a long-lasting academic influence, with older articles still attracting high citation counts, underscoring the sustained relevance of the journal's foundational contributions to historical scholarship. The geographic diversity of contributions to the journal further attests to its international stature, with India remaining the dominant contributor with 249 articles. In conclusion, *Studies in History* has solidified its position as a leading journal in the field of historical scholarship, consistently evolving to address new challenges, methodologies, and thematic concerns.

References

1. Khan, A.S., Ur Rehman, S., Ahmad, S., AlMaimouni, Y.K., Alzamil, M.A.S. & Dummer, P.M.H. (2021), Five decades of the International Endodontic Journal: Bibliometric overview 1967–2020. *International Endodontic Journal*, 54(10), 1819-1839. <https://doi.org/10.1111/iej.13595>
2. Kumar, D., Shandilya, A.K. & Srivastava, S. (2023). The journey of F1000 Research since inception: through bibliometric analysis [version 1; peer review: awaiting peer review] *F1000Research*, 12:516. <https://doi.org/10.12688/f1000research.134244.1>
3. LoetLeydesdorff & StasaMilojevic. (2012). "Scientometrics." arXiv preprint arXiv:1208.4566.
4. <https://doi.org/10.48550/arXiv.1208.4566>
5. Masoud Mohammadi, Fatemeh Sheikhshoei, Maryam Banisafar, Auwal Abdullahi Abubakar, & Omid Mozafari. (2019). "Scientometric Analysis of Scientific Publications on Persian Medicine Indexed in the Web of Science Database." *Webology*, 16(1), 151–65. doi: 10.14704/WEB/V16I1/a184.

6. Mohapatra, P. P. (1985). Coolies and Colliers: A Study of the Agrarian Context of Labour Migration from Chotanagpur, 1880-1920. *Studies in History*, 1(2), 247-303. <https://doi.org/10.1177/025764308500100206>
7. Sarkar, T. (1992). The Hindu wife and the Hindu nation: Domesticity and nationalism in nineteenth century Bengal. *Studies in History*, 8(2), 213-235. <https://doi.org/10.1177/025764309200800204>
8. Tipawan Silwattananusarn, & Pachisa Kulkanjanapiban (2021). Research Publication Pattern on Songklanakarin Journal of Science and Technology (SJST) Indexed in the Scopus Database: A Scientometric Analysis during 2006-2019” (2021). *Library Philosophy and Practice (e-journal)*. 4804. <https://digitalcommons.unl.edu/libphilprac/4804>
9. Singha, R. (2000). Settle, Mobilize, Verify: Identification Practices in Colonial India. *Studies in History*, 16(2), 151-198. <https://doi.org/10.1177/025764300001600201>
10. Vaishya, R., Gupta, B. M., Kappi, M., & Vaish, A. (2023). International Orthopaedics journal: A bibliometric analysis during 1977-2022. *Iberoamerican Journal of Science Measurement and Communication*, 3(1). <https://doi.org/10.47909/ijsmc.465>.
11. Van Eck, N.J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523-538. <https://doi.org/10.1007/s11192-009-0146-3>.

Modernity Women and Empowerment- An Experience in Travancore under Regency

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Abstract

The regent rule in Travancore was experimental to modern ideas and ideologies. Travancore's experience of empowerment inherited a special feature in the form of the women agency. Empowered women, the regent became the vanguard of change here. In our history such incidents are very rare and rare incidents like the same are not well represented. Vested interests always played a sinister role in doing the same. Regent tried to inculcate modern sensibilities to the evolving benevolent despotic state. The issue of gender was better represented during the period in Travancore. The lady ruler and her sensibilities to social nuances were unparalleled in that stage of Indian history.

Key words: Regency, Empowerment, Modernity, Medicos, Representation, Feminism.

Modernity, Women and Empowerment- An Experience in Travancore under Regency

“In our society, the women who break down barriers are those who ignore limits’. As Kerala was ushered into the modern era, nearer to democracy and political orientation, the women of Travancore came to occupy a central role in its fortunes. What separates Travancore from different Indian princely states, principally infamous for their wealth and debauch, are the progressive steps they initiated. The women rulers of Travancore became the image of implication and benevolence. They safeguarded the interest of their subjects even through the storming political conditions of the state. During this study, effort was taken to portray the life and achievements of Sethu Lakshmi Bayi, The Last Queen of Travancore. A reformist, in a position of administration and a beautiful personality, who gave importance to common man and therefore the welfare of the state. The progress that state witnessed in the later period was initiated in her

times. Sethu Lakshmi Bayi headed the Travancore government for seven years as a regent and promoted the causes for progress at a time when the society was largely conservative towards girls.

Among the states of India, the state of Kerala has a unique image with its high degree of literacy even among women and its predominantly matrilineal past, which would make us expect Kerala women to be highly liberated. Although they have been playing their role in the cultural, political, social and educational arena, Kerala women continue to occupy a secondary place in society. Even today they are heavily discriminated against in political, economic, legal, social and religious terms. Along with all the trials and tribulations of life faced by the poor and oppressed in our society, women in particular have had to experience the denial of fundamental rights in Travancore. Under the matrilineal system, the minority of the heir meant that the eldest female within the royal house, the Senior Rani would assume ruling power. As Sree Chithira

Thiunal Balaramavarma had not attained the age for succession, upholding the prevailing customs, the British Government decided to proclaim Sethu Lakshmi Bayi as the 'Regent' to rule on behalf of the Minor Maharaja. The title "Maharajah" was used in the proclamation to indicate that she reigned in her own rights as head of the royal line and not as widow or mother of a Maharajah. Sethu Lakshmi Bayi was addressed during her reign as the Maharani Regent of Travancore.

It was no surprise then that the modern women received an additional momentum during the Regency in Travancore, and unprecedented advances were made in various areas, including education, law, employment and more. Maharani began her reforms from the installation of durbar. She had ended the custom of presenting costly presents to royalty on auspicious occasions.

The Maharani, in spite of the severe opposition she had to face, ended the age-old custom of appointing only caste Hindus as Dewans of Travancore and made an Anglo-Indian Travancore Christian, ME Watts, as Dewan in 1925.

Only months after her succession, the Maharani had elevated Dr. Mary Poonen Lukose, Travancore's first women graduate and a product of one of the best medical colleges in the West, from being surgeon in charge of the Women and Children's hospital and her personal doctor, to the head of the medical department of Travancore. The news was printed in the Madras Mail under the heading of 'Feminism in Travancore', as at the same time Dr. Mary was also nominated by the Maharani as a member of the Legislative Council, becoming the first woman to take a seat in the house. It was the first time in India that a woman was being appointed the head of a major department, and also the first instance of a 'Lady Legislator'.

By 1928, the Maharani would nominate another woman to the legislature, one Mrs. Elizabeth

Kuruvila, who would champion a motion to give equal chances to women in government appointments along with men by the following year. Early in 1927 the Maharani opened up the study of law to female students, despite adverse comments so that in a few years the state had Miss Anna Chandy 'the first women judicial officer' not only in Travancore but also in the entire Anglo-Saxon world. She employed nearly 500 women in her administration, as clerks, secretaries and so on. A training college was opened at Alappuzha district hospital for training midwives. Salaries of teachers in schools were enhanced.

In 1927, Sethu Lakshmi Bayi raised the Women's College in Trivandrum from second grade, where they taught intermediate and "female" but professionally useless courses, up to first grade by obtaining affiliation to the University of Madras and starting classes in History, Natural Sciences, Languages and Math. She also procured lectures and trained teachers from Europe at considerable costs and brought them to Trivandrum. Not only were the salaries high, but these teachers also received a lot of other benefits to ensure that they stayed. Soon there were 232 women going to college in Travancore, with more than 9,500 girls in English schools.

Another important social reform effected to uplift women kind was the abolition of the Devadasi or *Kudikkari* system as it was otherwise called. In 1930 Her Highness' Government sanctioned a complete cessation of the system. The *Kudikkaries* in service were allowed to draw their stipulated emoluments as long as they lived. A Training centre was opened at Alapuzha District Hospital for training midwives. Salaries of teachers in schools were enhanced and grant in aids extended to private schools. Abolition of the primitive custom of animal sacrifice in temples, was another notable reform of Rani Sethu Lakshmi

Bayi. From 1926-1927, the singing of obscene and indecent songs at the annual *Uthsavam* in the temple was strictly prohibited. One of the most fascinating social legislations Sethu Lakshmi Bayi presided over in 1925, was concerning the final demise of the matrilineal system of inheritance after decades of debate and dissent.

When we consider the social reforms, we must always take under consideration the bold changes Sethu Lakshmi Bayi brought into the social system, which her predecessors hesitated to make. The Nair Regulations, the Ezhava Regulations, the Malayali Brahmin Regulations and also the Nanjinad Vellala Regulations all were meant to eradicate the evils of Marumakkathayam and therefore the joint family system, freeing the individual member. The system of Devadasi was completely stopped during the regency. So was the case with *Poorapattu* and animal sacrifice in temples under the *Devasom*. The Maharani was also very careful in observing the customs of the Sree Padmanabha Swami Temple. The Maharani was of course remarkably cognizant of the future and lots of her contributions were oriented towards setting the stage for crucial future events. This far sightedness previously manifested itself in her endorsement of the Cochin Harbour Scheme which proved to be a great success. The Vaikom Satyagraha was also one among the foremost important events within the period of regency. Gandhi visited Travancore during this era. Similarly, her resolution of the Vaikom Satyagraha became a historic prelude to the even more momentous Temple Entry Proclamation a decade later. Gandhiji called the reform as bedrock of freedom. It is crucial to understand that merely allowing the people into or around the temples was socially a great gesture in orthodox societies. But she was likely to be remembered as a zealous promoter of women's cause which was sidelined in the ages of history.

The ritualistic and tradition-bound queen became the primary within the 'Hindu state' to provide minorities a true chance, and this attitude reflected even within the way she worked for the upliftment of women. In her conduct as the regent; she never let her personal sentiments fuse with her public demeanor. Considered as one of the first women to introduce feminism in Kerala, Sethu Lakshmi Bayi's tolerant attitude towards minorities and women wasn't appreciated by everyone.

Her devotion to the cause of gender equality had always been clear, and she formulated simple incentives to attain her objective. During her tenure, she employed nearly 500 women in her administration, either as clerks or secretaries. It was the first instance of women holding official posts and by the end of the 1920s, there was a conspicuous presence of women in several professional fields. The queen also encouraged women to take up the legal profession. This allowed Anna Chandy to become India's first female judge. Her efforts didn't stop here. She brought the first 'lady legislators,' and backed Kerala's first filmmaker. When the Dalit actor of that film faced backlash for portraying an upper caste character, she provided police protection to her.

The regime of Sethu Lakshmi Bayi's history is actually absent in the history of Travancore except for the writings of Lakshmi Raghunandan (Granddaughter of Sethu Lakshmi Bayi) and Manu S Pillai's *Ivory Throne*. The important material sources and papers about the regent were turned into ashes by a mysterious fire that occurred in her last abode in Travancore. Most of the archival records about the regent seem to be missing in almost all the centers. The history of a ruler who never considered gender as a barrier in introducing far-reaching reforms which would

benefit the society was kept in shadows for a long time.

One of the benevolent Maharani Sethu Lakshmi's lives is indeed a scope for further study into her regime which might have been lost in the time. By virtue of life she led and the decision she took, Sethu Lakshmi Bayi deserves to be remembered and celebrated.

Though she ruled for as short span of time, she proved to be one of the forward-looking rulers who paved way for further social reforms in future. In that era of social orthodoxy, she was being traditional and ritualistic and waged war for social reforms. So, it becomes important to know the contributions of the women administrator of Travancore which paved way for empowerment of women through attaining role and importance in the main stream of the nation.

Histories are always biased intentionally or unintentionally. In the case of the queen both happened. Official histories covered the splendid era of the regent to safe guard the interest of the royals. In the post independent era this cover-up led to ignorance. Social histories of the post-independence era let the contributions of the queen down as part of political history. Gender studies also followed the same path. It's only with the semi academic intervention of Manu S Pillai, the age of the regent becomes a talking point popularly and academically. In the light of post-colonial and gender narratives, the regent and her contributions to Travancore have so many manifestations to get unraveled.

Endnotes and References

1. General Section F. No: 314, 344, 392, 585, 652, 670, 752, 646, 707, 764, 878, 900, 930, 1318, 1358, 1194, 1685, 1275, 1052, Directorate of Kerala Sate Archives, Nalanda Trivandrum
2. Confidential letters F. No. 18, 199, 245, 559, 930
3. Administrative Report (1920-1940) Library, Directorate of Archives, Trivandrum
4. The Regulation and Proclamation of Travancore. (1924-1932) Library, Directorate of Archives, Trivandrum
5. *Travancore Administrative Report from 1924-31.*
6. *Travancore Government Gazette 1924-1931.*
7. *Travancore Devaswom Administrative Report.1930*
8. *The Sri Moolam Assembly Proceedings 1924 – 1931*
9. Lakshmi Raghunandan, *At The Turn Of The Tide The Life And Times Of Maharani Setu Lakshmi Bayi The Last Queen Of Travancore: Maharani Setu Lakshmi Bayi Memorial Charitable trust, 1995.*
10. Louise Ouwerkerk, *No Elephants For The Maharaja ;Social and Political Change in the Princely State Of Travancore(1921-1947),* New Delhi:Manohar Publications, 1994.
11. Nagam Aiya, V., *Travancore State Manual.* Vol.I., New Delhi:Asian Educational services, 1906.
12. Padmanabha Menon, K.P;*History of kerala,* Vol III, New Delhi:CosmoPublication Services, 1984.
13. Shungoonny Menon, P;*A History of Travancore,* New Delhi: Cosmo Publication Services, 1984.
14. Velu Pillai, T.K., *The Travancore State Manual* Vol.I, Thiruvananthapuram: Government of Kerala.(rep) 1996.

15. John Kattakayam, *Nammude Rajavamsam*, Ramavilasom Press, 1970.
16. Ramachandran Nair, Pattom, G., *Thiruvananthapurathinte Ithihasam*, Trivandrum: Sahitya Vedi, 1996.
17. Sarma, V.S; *Tiruvitamkur Rajavamsam*, Trivandrum:1992.
18. *A fitting tribute to the last queen: Pooradam Thirunal Sethu Lakshmi Bayi*, Deccan Chronicle, Oct 30, 2016.
19. Sathyendran Nita, *Queen and the Kingdom*, The Hindu, November 21, 2015
20. Varma Nikhil, *A Queen's Tale*, The Hindu, January 11, 2016

കെ പി കറുപ്പന്റെ ജാതിധ്വംസനം - ജാതിക്കുമ്മിയിൽ ഒരു അന്വേഷണം

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പ്രബന്ധ സംഗ്രഹം

കേരളത്തിലെ അധഃസ്ഥിത സമൂഹത്തിൽപ്പെട്ടവരുടെ ഉന്നമനത്തിന് വേണ്ടി പ്രയത്നിച്ച വ്യക്തിയാണ് കെ പി കറുപ്പൻ. സാഹിത്യ രചനയിലൂടെയും ഈ ലക്ഷ്യത്തെ നിറവേറ്റാൻ ശ്രമിച്ച കെ പി കറുപ്പന്റെ 'ജാതിക്കുമ്മി' എന്ന കൃതിയിൽ സാമൂഹികസമത്വത്തിനായി അഭൈതദർശനം സ്വീകരിച്ചതിന്റെ സാധ്യത വിലയിരുത്തുകയാണ് ഈ പ്രബന്ധത്തിൽ.

താക്കോൽ വാക്കുകൾ

കേരളത്തിലെ ജാതി സമ്പ്രദായം, കെ പി കറുപ്പന്റെ സംസ്കൃത പഠനം, ശ്രീ ശങ്കരാചാര്യരുടെ 'മനീഷാപഞ്ചകം', 'ജാതിക്കുമ്മി'യിലെ ഉള്ളടക്കം.

പ്രബന്ധം

കേരളത്തിലെ നവോത്ഥാനനായകൻമാർ സ്വാതന്ത്ര്യം, സമത്വം, സാഹോദര്യം എന്നീ മഹാമൂല്യങ്ങൾ നമ്മുടെ സമൂഹത്തിൽ നിലകൊള്ളണം എന്ന ലക്ഷ്യത്തോടെ പ്രവർത്തിച്ചു. അവരിൽ ഒട്ടുമിക്കപേരും സാഹിത്യരചനയിലൂടെ ഈ ലക്ഷ്യങ്ങൾ സാക്ഷാത്ക്കരിക്കാൻ ശ്രമിച്ചു. എഴുത്തച്ഛൻ മുതൽ നിരവധിപേർ ഈ ലക്ഷ്യം നിറവേറ്റാനായി കൃതികൾ രചിച്ചിരുന്നു. ജൻമമഹത്വത്തിലുപരിയായി കർമ്മമഹത്വത്തിലൂടെ സ്ഥാനലബ്ധി ഉണ്ടാവുക എന്നതാണ് പ്രധാനം. മനീഷാപഞ്ചകത്തെ ഉപജീവിച്ച് കെ പി കറുപ്പൻ 'ജാതിക്കുമ്മി' എന്ന കൃതി രചിച്ച് ഈ ലക്ഷ്യത്തോടെയാണ്.

ആര്യാധിനിവേശത്തിന്റെ അനന്തരഫലമായാണ് കേരളത്തിൽ ജാതിവ്യവസ്ഥ ഉടലെടുത്തത്. പതിനൊന്നാം ശതകത്തോടെ ജാതിവ്യവസ്ഥ പ്രബലമാകാൻ തുടങ്ങി. ഇതിന് പല സാമൂഹിക സാമ്പത്തിക പരിണാമങ്ങൾ വഴിതെളിച്ചു. ഭരണാധിപത്യം സമൂഹത്തിൽ ഉന്നത ശ്രേണിയിലുള്ള ബ്രാഹ്മണർക്കായിരുന്നു. താഴ്ന്ന ജാതിക്കാരെ രാഷ്ട്രീയവും സാമ്പത്തികവുമായ ചൂഷണങ്ങൾക്ക് വിധേയമാക്കിയതിന് പുറമേ ഇവർക്ക് വിദ്യാഭ്യാസവും നിഷേധിച്ചിരുന്നു. കേരളത്തിൽ തൊട്ടുകൂടായ്മ തീണ്ടി കൂടായ്മ മുതലായ അയിത്തം നിലനിന്നിരുന്നു. തൊട്ടുകൂടാത്ത അവർണ്ണ ജാതി ക്കാരിൽബില്ലവ, നാടാർ, ഈഴവ, ധീവര, ചോവൻ തുടങ്ങിയവർ

ഉൾപ്പെട്ടിരുന്നു. ഈ സാഹചര്യത്തിൽ നിന്ന് വിലയിരുത്തുമ്പോഴാണ് ധീവര സമുദായത്തിൽ ഉൾപ്പെട്ട പണ്ഡിറ്റ് കെ.പി. കറുപ്പന്റെ സാമൂഹിക സാഹിത്യ സംഭാവനകൾക്ക് പ്രസക്തിയേറുന്നത്.

1885 ൽ ജനിച്ച കെ പി കറുപ്പൻ പ്രാഥമിക വിദ്യാഭ്യാസത്തിനു ശേഷം അപ്പു ആശാനിൽ നിന്ന് 'അമര കോശവും' 'സിദ്ധരുപവും', 'ശ്രീരാമോദന്തം' എന്ന ലഘുകാവ്യവും പഠിച്ചതോടെ സംസ്കൃത പഠനത്തിന്റെ ആദ്യഘട്ടം പൂർത്തിയാക്കി. സ്വന്തം ബുദ്ധിശക്തി കൊണ്ട് പല പണ്ഡിതരെയും അത്ഭുതപ്പെടുത്തിയ കറുപ്പന് യഥേഷ്ടം വിദ്യാഭ്യാസം ചെയ്യാനുള്ള അവസരങ്ങൾ ലഭിച്ചു. രാമ പൊതുവാളിൽ നിന്ന് 'മാഘം' 'നൈഷധം' എന്നീ മഹാകാവ്യങ്ങളും 'ഭോജരാജചമ്പുവും' എല്ലാം പഠിച്ച ശേഷം കേരളത്തിലെ സംസ്കൃത സർവകലാശാലയായി അക്കാലത്ത് അറിയപ്പെട്ടിരുന്ന കൊടുങ്ങല്ലൂർ കോവിലകത്തേക്ക് ഉപരിപഠനാർത്ഥം എത്തിച്ചേർന്നു. പ്രശസ്തരായ കവികളും ഭാഷാ പണ്ഡിതരും അക്കാലത്ത് കോവിലകത്ത് ഉണ്ടായിരുന്നു. മഹാകവി കുഞ്ഞിക്കുട്ടൻ തമ്പുരാനെ പോലെയുള്ളവരുടെ സാന്നിധ്യം കറുപ്പന് പഠിക്കാനും കൂടുതൽ അറിവ് നേടാനും ഉള്ള പ്രേരണ നൽകി. കൊടുങ്ങല്ലൂർ കോവിലകത്തെ പഠനം കറുപ്പനെ വലിയ പണ്ഡിതൻ ആക്കി മാറ്റി. കോവിലകത്ത് ജീവിച്ചിരുന്ന ഗോദവർമ്മ ഭട്ടൻ തമ്പുരാൻ, വലിയ കൊച്ചുണ്ണി തമ്പുരാൻ, ചെറിയകൊച്ചുണ്ണി തമ്പുരാൻ, കൊടുങ്ങല്ലൂർ കുഞ്ഞി

കൂട്ടൻ തമ്പുരാൻ എന്നിവരും അവരുടെ ശിഷ്യന്മാരും ചേർന്ന് പണ്ഡിത്യത്തിന്റെ വിശാലമായ ലോകമാണ് കറുപ്പന്റെ മുന്നിൽ തുറന്നുവെച്ചത്. ഇത്തരം ബന്ധങ്ങൾ കറുപ്പന്റെ ജീവിതത്തിൽ വഴിത്തിരിവായി. തീണ്ടലുംതൊടീലും ശക്തമായിരുന്ന കാലഘട്ടത്തിൽ കറുപ്പന് കോവിലകത്ത് പഠിക്കാൻ അവസരം ലഭിച്ചത് അസൂയയോടെയാണ് ഏവരും വീക്ഷിച്ചത്.

സാമൂഹികപരിഷ്കരണം ആയിരുന്നു തന്റെ ലക്ഷ്യമെങ്കിലും സാഹിത്യരചനയ്ക്കും അദ്ദേഹം സമയം കണ്ടെത്തിയിരുന്നു. വെറുതെ എന്തെങ്കിലും എഴുതുന്നതിനപ്പുറം സാഹിത്യത്തിലൂടെ സാമൂഹിക വിമർശനവും സാമൂഹികമാറ്റവും ആയിരുന്നു കറുപ്പൻ ലക്ഷ്യമിട്ടത്. അതിനായി അദ്ദേഹം സ്വന്തമായി ഒരു ശൈലി തന്നെ രൂപപ്പെടുത്തി. ജാതിയും അത് സൃഷ്ടിച്ച സാമൂഹികാസമത്വങ്ങളും എതിർക്കപ്പെടേണ്ടതാണെന്ന ബോധം വളരെ ചെറുപ്പത്തിൽ തന്നെ കറുപ്പന് ഉണ്ടായിരുന്നു.

കറുപ്പന്റെ സാഹിത്യകൃതികൾ പരിശോധിക്കുമ്പോൾ അതിൽ പ്രഥമഗണനീയം 'ജാതിക്കുമ്മി' എന്ന കൃതിയാണ്. 1905 ൽ രചിച്ച ഈ കൃതി അച്ചടിച്ചത് 1912 ആണ്. അമ്മാന കുമ്മി എന്ന നാടൻശീലിൽ 141 പാട്ടുകളാണ് ഉള്ളത്. അതീവ ലളിതമായ ഭാഷയിൽ കുമ്മി പാട്ടിന്റെ ഈണത്തിലും താളത്തിലും ആണ് ജാതിക്കുമ്മി രചിച്ചിരിക്കുന്നത്. ശങ്കരാചാര്യർ രചിച്ച മനീഷാപഞ്ചകം എന്ന കൃതിയുടെ പശ്ചാത്തലമാണ് 'ജാതിക്കുമ്മി' എന്ന കൃതിക്ക് വേണ്ടി കെ.പി. കറുപ്പൻ തെരഞ്ഞെടുത്തത്. സംസ്കൃത സാഹിത്യത്തിൽ കെ.പി. കറുപ്പനുള്ള പാണ്ഡിത്യം ഈ അവസരത്തിൽ സ്മരണീയമാണ്.

ശങ്കരാചാര്യരുടെ മനീഷാപഞ്ചകം

ശങ്കരാചാര്യർ കാശിയിൽ താമസിച്ചിരുന്നപ്പോൾ മനീഷാപഞ്ചകം രചിച്ചു എന്നാണ് പ്രസിദ്ധി. ഒരിക്കൽ ശങ്കരാചാര്യരും ശിഷ്യന്മാരും ഗംഗയിൽ സ്നാനത്തിനു പോവുകയായിരുന്നു. സത്യനിഷ്ഠനായിരുന്നെങ്കിലും നൈമിഷികമായ ദേഹ ഭാവന ചിലപ്പോഴൊക്കെ അദ്ദേഹത്തെ ബാധിച്ചിരുന്നു. അതുകൊണ്ട് പരമശിവൻ ഒരു ചണ്ഡാല വേഷം ധരിച്ച് നാല് നായ്ക്കളും ഒന്നിച്ച് ആചാര്യർക്ക് അഭിമുഖമായി ചെന്നു. പെട്ടെന്നുണ്ടായ ദേഹ ഭാവന നിമിത്തം ശ്രീ ശങ്കരൻ ചണ്ഡാലനോട് വഴിമാറി

പോകാൻ ആവശ്യപ്പെട്ടു. ഇത് കേട്ട ചണ്ഡാലൻ അദ്ദേഹത്തിന്റെ ബ്രഹ്മബോധത്തെ ആക്ഷേപിച്ച് പലതും പറയുവാൻ ഇടയായി. ബ്രഹ്മാവ് മുതൽ ഉറുമ്പുവരെ എല്ലാം ബ്രഹ്മസ്വരൂപമാണെന്ന് ശിഷ്യരോട് ഉപദേശിക്കുകയും തന്നോട് മാറി പോകുവാൻ പറയുകയും ചെയ്യുന്നത് പരസ്പര വിരുദ്ധമാണെന്ന് അയാൾ ചൂണ്ടിക്കാട്ടി. അപ്പോഴാണ് ആചാര്യൻ തന്റെ തെറ്റ് മനസ്സിലായത്. പെട്ടെന്ന് കാര്യം മനസ്സിലാക്കി ശങ്കരാചാര്യർ നോക്കുമ്പോൾ ചണ്ഡാലനും നായ്ക്കളും അപ്രത്യക്ഷമായിരുന്നു. ഈ സംഭവത്തെ അനുസ്മരിച്ചുകൊണ്ട് പാടിയിതാണ് 'മനീഷാപഞ്ചകം'.

മനീഷാപഞ്ചകം ശ്ലോകം 1

ഏതൊരു ബോധമാണോ ഉണർവിലും സ്വപ്നത്തിലും ഉറക്കത്തിലും മറ്റൊന്നിനേക്കാളും വ്യക്തമായി പ്രകാശിച്ചുകൊണ്ടിരിക്കുന്നത്, ഏതൊരു ബോധമാണോ ജഗത്തിനെ മുഴുവൻ പ്രകാശിപ്പിച്ചുകൊണ്ട് ബ്രഹ്മാവ് മുതൽ ഉറുമ്പ് വരെയുള്ള ശരീരങ്ങളിൽ കോർത്തിണക്കപ്പെട്ടിരിക്കുന്നത് ആ ബോധം തന്നെയാണ് ഞാൻ; ഉണ്ടായി മറയുന്ന ജഡ ദൃശ്യങ്ങൾ ഒന്നും ഞാൻ അല്ല തന്നെ, എന്നിങ്ങനെ യുള്ള ഉറപ്പായ അറിവെങ്കിലും ഒരാൾക്ക് ഉണ്ടെങ്കിൽ അയാൾ ജനനം കൊണ്ട് ചണ്ഡാളനോ അഥവാ ബ്രാഹ്മണനോ ആയിരിക്കട്ടെ; ഗുരുവാണ്. ഇക്കാര്യം എന്റെ സംശയാതീതമായ തീരുമാനമത്രേ.

മനീഷാപഞ്ചകം ശ്ലോകം 2

ഞാൻ ബ്രഹ്മം തന്നെയാണ്. ഈ മുഴുവൻ ജഗത്തും ബോധസത്തയുടെ തന്നെ പ്രകടരൂപമാണ്. പലതായി കാണുന്ന ഈ സർവ്വവും സമ്പൂർണ്ണമായി സത്ത്വം, രജസ്, തമസ് എന്നീ മൂന്ന് ഗുണങ്ങളോടുകൂടിയ അവിദ്യ വഴിയായി എന്നാൽ തന്നെ സങ്കല്പിച്ചു കാണുന്നതാണ്. അതിരറ്റ സുഖരൂപവും അഴിവില്ലാത്തതും പ്രപഞ്ചത്തിന്റെ പരമകാരണവും കളങ്കമറ്റതും ആയ ബ്രഹ്മവസ്തുവിൽ ഏതൊരാൾക്ക് ഇപ്രകാരം ഉറപ്പായ ബുദ്ധി വന്നുചേരുന്നുവോ അയാൾ ചണ്ഡാളൻ ആയിക്കൊള്ളട്ടെ ബ്രാഹ്മണൻ ആയിക്കൊള്ളട്ടെ ഗുരുവാണ് ഇക്കാര്യം എന്റെ ഉറപ്പുള്ള നിശ്ചയമത്രേ.

മനീഷാപഞ്ചകം ശ്ലോകം 3

ഗുരുപദേശം വഴി ഇക്കാണുന്ന പ്രപഞ്ചം മുഴുവൻ സദാ നശ്വരം തന്നെയാണെന്ന് തീരുമാനിച്ചു നിഷ്കളങ്ക ഹൃദയത്തോടെ ശാശ്വതവും ഇടതിങ്ങി

നിൽക്കുന്നതുമായ ബ്രഹ്മത്തെ വിചാരം ചെയ്ത് അറിയുന്ന ആൾ ജ്ഞാനാഗ്നിയിൽ സഞ്ചിതവും ആഗാമിയുമായ കർമ്മസഞ്ചയത്തെ എരിച്ച് കളഞ്ഞിട്ട് ശരീരത്തെ പ്രാരാബ്ധാനുഭവത്തിനായി വിട്ടുകൊടുക്കുന്നു. ഇത് എന്റെ ഉറച്ച തീരുമാനമാണ്.

മനീഷാപഞ്ചകം ശ്ലോകം 4

ഏതൊരു ബോധമാണോ പക്ഷി മൃഗാദി ജന്തുക്കളിലും മനുഷ്യരിലും ദേവന്മാരിലും 'ഞാൻ ഞാൻ' എന്നിങ്ങനെ സ്വപ്നമായുള്ളിൽ ഗ്രഹിക്കപ്പെടുന്നത്; സ്വതഃ അചേതനങ്ങൾ ആയ മനസ്സ്, ഇന്ദ്രിയങ്ങൾ, ദേഹം, വിഷയങ്ങൾ എന്നിവ യാതൊന്നിന്റെ പ്രകാശം കൊണ്ടുമാത്രമാണോ ഉള്ളതായി അനുഭവപ്പെടുന്നത്, സൂര്യൻ മേഘപടലങ്ങളാൽ മറയ്ക്കപ്പെടുന്നത് പോലെ ആ ബോധം ദൃശ്യപദാർത്ഥങ്ങളാൽ മറയ്ക്കപ്പെട്ടിരിക്കുന്നു എന്ന് ഭാവന ചെയ്തു മനസ്സ് ആ സത്യത്തിൽ യോജിപ്പിച്ച് നിത്യ തൃപ്തനായി കഴിയുന്ന യോഗി ഗുരുവാണ് ഇക്കാര്യം എന്റെ ഉറച്ച നിശ്ചയമത്രേ.

മനീഷാപഞ്ചകം ശ്ലോകം 5

ഏതൊരു സുഖസമുദ്രത്തിന്റെ ലേശം നുകർന്നിട്ടാണോ ഇന്ദ്രാദി ലോകപാലകന്മാർ പോലും ആനന്ദനിർവ്വതരായി കഴിഞ്ഞു കൂടുന്നത്, ലോക സങ്കല്പങ്ങൾ പൂർണ്ണമായി ഉപശമിച്ച ചിത്തത്തിൽ ഏതൊന്നിനെ സാക്ഷാത്കരിച്ചിട്ടാണോ സത്യദർശി മൗനാനന്ദത്തിൽ ആണ്ടിരിക്കുന്നത്, ആ സുഖ സമുദ്രത്തിൽ ബുദ്ധി അലിഞ്ഞു ചേർന്ന ആളെ ബ്രഹ്മത്തെ അറിയുന്ന ആളായിട്ടല്ല സാക്ഷാൽ ബ്രഹ്മം ആയിട്ട് തന്നെയാണ് കരുതേണ്ടിയിരിക്കുന്നത്. അങ്ങനെ യൊരാൾ ഉണ്ടെങ്കിൽ അദ്ദേഹത്തിന്റെ പാദത്തിൽ ഇന്ദ്രൻ പോലും കുമ്പിട്ട് നമിക്കുന്നു. ഇത് എന്റെ ഉറച്ച തീരുമാനമാണ്.

മനീഷാപഞ്ചകത്തിലെ അഞ്ച് ശ്ലോകത്തിലും അവസാനത്തെ വാക്കുകൾ 'മനീഷാ മമ' (എന്റെ ഉറച്ച തീരുമാനമാണ്) എന്നാകയാലാണ് ഇതിന് മനീഷാ പഞ്ചകം എന്ന പേര് വന്നത്. അദ്വൈതം അത് അനുഭൂതിയിൽ വരുത്താനുള്ള മാർഗ്ഗം, ഗുരു ഉപദേശത്തിന്റെ ആവശ്യം, ഗുരുവിന്റെ ലക്ഷണം, അനുഭൂതി എന്നിവയെ സംക്ഷേപിച്ച് ഉപദേശിക്കുന്ന ഈ മനീഷാപഞ്ചകം വേദാന്ത സാര സംഗ്രഹമാകുന്നു...

ശ്രീ ശങ്കരാചാര്യർ മനീഷാപഞ്ചകം രചിക്കാൻ ഉണ്ടായ സാഹചര്യത്തെ വർണ്ണിച്ചുകൊണ്ട് ജാതിക്കുമ്മി എന്ന കൃതി ആരംഭിക്കുന്നു. ചന്ദ്രക്കല തിരുമുടിയിൽ ചൂടിയ പരമശിവനോടൊപ്പം ശ്രീപാർവതി ദേവിയും ശങ്കരാചാര്യർ വരുന്ന വഴിമധ്യേ സംശയമൊന്നുമില്ലാതെ നിലയുറപ്പിച്ചു. ഭാര്യാസമേതം മാർഗ്ഗതടസ്സം ഉണ്ടാക്കി നിൽക്കാതെ മാറി നിൽക്കാൻ ഗൗരവത്തോടെ ആചാര്യ സ്വാമികൾ കൽപ്പിച്ചപ്പോൾ അതിനു മറുപടിയായി കാര്യം അറിയാതെ താൻ വഴിമാറുക ഇല്ലെന്നും അത് തീർത്തും മുട്ടാളത്തം ആണെന്നും പറയൻ പ്രതികരിച്ചു. നീ താഴ്ന്നജാതിക്കാരൻ ആയ പറയനാണ്, ഞാൻ ആകട്ടെ ജാതിയിൽ ഒന്നാമനായ ബ്രാഹ്മണനും. അതുകൊണ്ടുതന്നെ ഞാൻ ആവശ്യപ്പെട്ടാൽ നീ ഓടി മാറുക തന്നെ വേണം. അതാണ് നിന്റെ വ്യാതിക്ക് അനുയോജ്യമായുള്ളത്- എന്ന ശങ്കരാചാര്യരുടെ അഭിപ്രായത്തിനു മറുപടിയായി മനുഷ്യരെല്ലാം ഒരൊറ്റ ജാതിയിൽ പെട്ടവരാണ് അല്ലാതെ മാടും മരവും അല്ല എന്ന് പറയന്റെ വാക്കുകളിലൂടെ പ്രതികരിക്കാൻ കെ.പി. കറുപ്പൻ അല്ലാതെ മറ്റൊരാൾക്ക് കഴിയില്ല എന്ന വസ്തുത നിസ്തർക്കമത്രേ. 1905 ൽ ഒരു അധഃസ്ഥിത സമുദായക്കാരൻ സവർണ്ണ മേധാവിത്വത്തിനെതിരെ ഇപ്രകാരം ഒരു ചോദ്യം ഉന്നയിച്ചപ്പോൾ സംഭവിക്കാൻ ഇടയുള്ള കോലാഹലത്തെ ഊഹിക്കാവുന്നതാണ്. മനുഷ്യനാണെങ്കിലും ഞാൻ ബ്രാഹ്മണനാണ് ചണ്ഡാള! നിന്റെ ഇഷ്ടപ്രകാരം വഴി നടക്കുകയും അഹമ്മതിചൊല്ലുകയും ചെയ്യാമോ? എന്നാണ് ആചാര്യ സ്വാമിയുടെ ചോദ്യം. ബ്രഹ്മമറിഞ്ഞവനാണ് ബ്രാഹ്മണൻ. ബ്രഹ്മജ്ഞാനം ഉണ്ടെങ്കിൽ ചണ്ഡാളനും ബ്രാഹ്മണൻ തന്നെ എന്ന പറയന്റെ മറുപടി ഏറെ പ്രസക്തമാണ്. തുടർന്നുള്ള മറുപടികളിൽ അദ്വൈതസാരത്തെ തീർത്തും ലളിതമായി കവി തിലകൻ അവതരിപ്പിക്കുന്നു. പുന്താനത്തിന്റെ ജ്ഞാനപ്പായ്ക്ക് ശേഷം അതിലളിതമായി അദ്വൈതസാരത്തെ കവിതയിലേക്ക് ആവാഹിച്ച ഈ കൃതി അത്തരത്തിലും ഏറെ ശ്രദ്ധേയമാണ്. ഈ ലോകത്തിലെ ജനങ്ങളെല്ലാം ഈശ്വരന്റെ മക്കളാണ് അങ്ങനെയാകുമ്പോൾ അവരെല്ലാം ഒരു ജാതി തന്നെ. സമസൃഷ്ടിയെ എന്തിന്റെ പേരിൽ മാറ്റി നിർത്താൻ കഴിയും? അത് ഈശ്വരൻ നോക്കിയിരിക്കുകയല്ലേ അതുകൊണ്ട് തീണ്ടൽ ധിക്കാരമാണ് എന്നിങ്ങനെ പറയൻ അഭിപ്രായപ്പെടുന്നു ശരീരത്തിനാണോ തീണ്ടൽ ഉണ്ടാകേണ്ടത്? അതോ ആത്മാവിന്

ആണോ? ശരീരം ശരീരത്തെ തീണ്ടുമെന്നാണെങ്കിൽ ഏറെ വിചിത്രം തന്നെയാണ്. മലമൂത്രങ്ങൾ ഉള്ളിലുള്ളതിനാൽ ചില ശരീരത്തെ നീക്കി നിർത്താമെന്നാണെങ്കിൽ അവ ശരീരത്തിൽ വഹിക്കാത്ത ജനങ്ങൾ ഈ ഭൂമിയിൽ ഉണ്ടോ? പിന്നെ തീണ്ടൽ കൊണ്ട് എന്തു ഫലമാണ് ഉണ്ടാകുന്നത്. നിരവധി തന്മാത്രകളാൽ നിർമ്മിതമായ ശരീരത്തിൽ ഏതിനെയാണ് ആട്ടേണ്ടത്?

ഏതാണ് ആട്ട് കൊള്ളേണ്ടത്? അതിനെക്കുറിച്ച് ഓർത്താൽ നന്നായിരുന്നു. ഒരു സ്വർണ്ണ തകിടിനെ ഉലയിൽ ഉറുതി പഴുപ്പിച്ച് പല കഷ്ണങ്ങളാക്കി മുറിച്ചിട്ട് അതിന്റെ വർണ്ണത്തെ ചോദിക്കുന്നത് പോലെ നിരർത്ഥകമാണ് മനുഷ്യനെ ജാതിയടിസ്ഥാനത്തിൽ വേർതിരിക്കുന്നത്. ബ്രാഹ്മണത്വം എന്നത് അറിയുകൊണ്ട് മനുഷ്യന് നേടാൻ കഴിയും. ജ്ഞാനിക്ക് ജാതിയും തീണ്ടലുമില്ല ആനന്ദം മാത്രമേയുള്ളൂ. ബ്രഹ്മധ്യാനം മാത്രമേയുള്ളൂ. ബ്രാഹ്മണൻ കേവലം ദേഹമാണെന്ന് വന്നാൽ ആ മാനവന്മാരെ സംസ്കരിക്കേണ്ടി വരുമ്പോൾ ബ്രഹ്മഹത്യാപാപം വന്നുചേരുമെന്നും മറിച്ച് ബ്രാഹ്മണൻ ഉടലല്ലാത്തതാവ് ആണെങ്കിൽ തീണ്ടുവാൻ കഴിയുകയല്ല എന്നും കവി സമർത്ഥിക്കുന്നു. തീണ്ടി കൂടായ്മ എന്ന അനാചാരം എത്രത്തോളം മൂഢത നിറഞ്ഞ ഒന്നാണെന്ന് നിരവധി ഉദാഹരണങ്ങളിലൂടെ കവിത തെളിയിക്കുന്നുണ്ട്. ചൈതന്യത്തിൽ നിന്നുണ്ടാകുന്ന ചൈതന്യത്തെ തീണ്ടുവാൻ കഴിയില്ല. ജ്ഞാനം ഉള്ളവൻ കാട്ടാളൻ ആണെങ്കിലും അവൻ ബ്രാഹ്മണന്റെ യജമാനൻ ആകാൻ സാധിക്കും. യതിയായ പറയന് യാഗം ചെയ്യാമെന്ന് വേദങ്ങളിൽ പോലും പരാമർശം ഉണ്ട്. ബ്രാഹ്മണന്റെ പൊയ്കയിലും ചണ്ഡാളന്റെ കാസാരത്തിലും സൂര്യബിംബം ഒരു പോലെ മനോഹരമാണ്. പൊൻകൂടത്തിനുള്ളിലെ വെള്ളത്തിലും മൺകൂടത്തിനുള്ളിലെ ജലത്തിലും സൂര്യനും ചന്ദ്രനും ഒരുപോലെ പ്രതിബിംബം കാട്ടുന്നു. ഇപ്രകാരമാണ് ശരീരങ്ങളിൽ പരമാത്മാവ് ആവിർഭവിക്കുന്നത്. ഇതിൽ നിന്നെല്ലാം തീണ്ടൽ പ്രക്രിയ എത്ര അർത്ഥമില്ലാത്തതാണെന്ന് സമർത്ഥിക്കുന്നു. അഹങ്കാരമില്ലാത്ത മനസ്സിൽ ഈശ്വരൻ വസിക്കുന്നു അവൻ പറയാനാണെങ്കിൽ പോലും. അഹങ്കാരിയായവൻ ബ്രാഹ്മണൻ ആയാലും അവന്റെ ഉള്ളിൽ ഈശ്വരനെ ദർശിക്കാൻ കഴിയില്ല. ഈ പരമാർത്ഥം അറിഞ്ഞാൽ ഒരുവനെ ആട്ടി അകറ്റേണ്ട കാര്യമുണ്ടോ? എല്ലാ മനുഷ്യരും നരജാതിയിൽ ഉൾപ്പെട്ടി

രിക്കുന്നു. ബ്രഹ്മാവ് മുതൽ ഉറുമ്പ് വരെ പരബുദ്ധിയില്ലാതെ നോക്കി കാണുന്നവൻ ബ്രാഹ്മണൻ ആയാലും ചണ്ഡാളൻ ആയാലും ഗുരുവാണ്. ദേഹം എന്നത് ഞാനല്ല ഞാൻ ആത്മാവാണെന്ന് മനസ്സിലാക്കുന്നവൻ വിപ്രൻ ആയാലും ചണ്ഡാളൻ ആയാലും ഗുരുവാണ്. ഞാൻ ബ്രഹ്മമാണെന്ന് തിരിച്ചറിഞ്ഞ് ഈ ലോകം ആകെ ത്രിഗുണം (സത്വം, രജസ്സ്, തമസ്സ്) എന്ന് മനസ്സിലാക്കുന്നവൻ ഉത്തമനാണ് അവൻ എനിക്ക് മിത്രവുമാണ് സത്യത്തിൽ അടിയുറച്ച് ജീവിക്കുന്നവൻ ഉത്തമനാണ് എന്റെ ഗുരുനാഥനും ആണ് അവൻ ഇസ്ലാം മതക്കാരനാണെങ്കിൽ പോലും ഇങ്ങനെ തുറന്നുസമ്മതിക്കാനുള്ള ആർജ്ജവം കെ.പി. കറുപ്പനിലേ കാണാൻ കഴിയും. മലയാളികളുടെ ഇടയിൽ മാത്രമാണ് തീണ്ടൽ എന്ന അനാചാരമുള്ളത്. തമിഴ്നാട്ടിലോ, കർണാടകത്തിലോ, മറാട്ടിലോ ഒന്നുംതന്നെ തീണ്ടൽ എന്നൊന്നില്ല. മലയാള രാജ്യത്ത് ഒഴിച്ച് ഹിന്ദുസ്ഥാനിലെ ഹിന്ദുക്കളെല്ലാം ഒരുപോലെയാണ് ലണ്ടനിലോ ജപ്പാനിലോ ഇറ്റലിയിലോ ഇത്തരത്തിൽ ഒരു രീതി നിലവിൽ ഇല്ല. കേരളത്തിലല്ലാതെ ലോകത്ത് മറ്റൊരിടത്തും ഇങ്ങനെയൊരു അനീതി കാണാനില്ല. കാഷ്ഠം ഭുജിക്കുന്ന പട്ടിക്ക് അരികിലൂടെ നടക്കാം എന്നാലും ഒരു താഴ്ന്നജാതിക്കാരന് പാടില്ല എന്ന നിയമം അവസാനിപ്പിക്കണം. മതം മാറിയാലും ജാതി മാറാൻ അനുവാദമില്ലാത്ത ഒരു രാജ്യത്ത് എങ്ങനെയാണ് മതം മാറ്റം നടത്തുമ്പോൾ അയിത്തം ഇല്ലാതാകുന്നത്. അത്തരത്തിൽ ഇല്ലാതാകുന്നതാണ് അയിത്താചാരണമെങ്കിൽ അത് ഏത് അർത്ഥത്തിലും അന്ധവിശ്വാസം തന്നെ. ഈ അന്ധവിശ്വാസമാണ് ഹിന്ദുമതത്തിന്റെ നാശഹേതു എന്നു പറഞ്ഞുകൊണ്ടാണ് കെ.പി കറുപ്പൻ ഈ കൃതി അവസാനിപ്പിക്കുന്നത്.

ഉപസംഹാരം

അയിത്തത്തിനും അടിമത്വത്തിനും എതിരെ പോരാടാൻ തീരുമാനിച്ച കെ പി കറുപ്പൻ സാഹിത്യ രചനയിലും തന്റെ ലക്ഷ്യത്തെ സാധൂകരിക്കാൻ ശ്രമിച്ചു. ജാതിയുടെ പേരിലുള്ള വിവേചനങ്ങളും ചൂഷണവും അടിച്ചമർത്തലുകളും ദുരാചാരങ്ങളും കൊണ്ട് ഹിന്ദു സംസ്കാരത്തെ മലീമസമാക്കുന്ന വർക്കെതിരെയുള്ള അതിശക്തമായ ആഹ്വാനമായിരുന്നു ജാതിക്കുമ്മിയുടെ പ്രമേയം. അധകൃതരെന്നു മുദ്രകുത്തി മുഖ്യധാരയിൽ നിന്നും അകറ്റിനിർത്തപ്പെട്ട

സമൂഹം ആ ഗാനോപഹാരത്തെ ആവേശപൂർവ്വം സ്വീകരിച്ചു. ചുണ്ടുകളിൽ നിന്ന് ചുണ്ടുകളിലേക്ക് അവർ അതിനെ പകർത്തി . ജാതിയിലൂടെ കറുപ്പൻ കൊച്ചിയിൽ നവോത്ഥാനത്തിന്റെ തിരികൊളുത്തി.

സഹായക ഗ്രന്ഥങ്ങൾ

1. അയ്യങ്കാളി മുതൽ വി.ടിവരെ ജീവചരിത്ര രേഖ - വേലായുധൻ പണിക്കശ്ശേരികറന്റബുക്സ് 2003.
2. കേരള നവോത്ഥാന ശിൽപികൾ-ജോസ് ചന്ദനപ്പള്ളി അനശ്വരബുക്ക്, തിരുവനന്തപുരം 2008.
3. പണ്ഡിറ്റ് കറുപ്പൻ- രാജേഷ് കെ. എരുമേലി ദേശാഭിമാനി ബുക്ക് ഹൗസ്, തിരുവനന്തപുരം 2015.
4. പണ്ഡിറ്റ് കറുപ്പന്റെ തിരഞ്ഞെടുത്ത കൃതികൾ - ഡി സി ബുക്സ്, കോട്ടയം 2013.
5. <http://sreyas.in/>

Domestic Violence and the Impact of Protection of Women from Domestic Violence Act in Kerala

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Abstract

This paper illustrates the importance of domestic violence against women and the role of the Protection of Women from Domestic Violence Act 2005. The present situation of women is very pathetic conditions. But so many acts and laws are implementing to the government to the protection of women and women rights in the state. Another point for this paper focuses on causes of domestic violence and loopholes for the Protection of Women from Domestic Violence Act, 2005 were discussed. However domestic violence and other type of atrocities against women is the major issue for our society. This paper looks about the impact of PWDV Act and the meaning of domestic violence against women. The paper also attempts to provide some recommendations to eradicate violence against women in the society.

Keywords: Women Rights, Gender violence, Domestic violence, PWDV Act, NGO, Protection Officer

Introduction

In Ancient India, the women enjoyed a major role not only at domestic sector but in the society. Over the past two decades, domestic violence against women has become one of the most pressing issues faced by women in society. Women experience physical, mental, economic, and psychological abuse not only from their in-laws but often from their husbands and relatives as well. The study titled “Domestic Violence and the Impact of Protection of Women from Domestic Violence Act in Kerala” were conducted to assess the extent and nature of violence faced by women in their homes, as well as the characteristics of the individuals involved. Domestic violence in Kerala has been a persistent issue throughout the past and continues to affect women. Women are often viewed as weak and vulnerable, making them

more susceptible to exploitation. Violence affects women across all social categories irrespective of caste, age, colour, creed, religion, education, or culture and results in violations of their social, political, economic, and cultural rights in India.

Objectives of the Study

- To find out the impact of PWDV Act, 2005.
- Examine the Prevalence of Domestic Violence in Kerala

What is Domestic Violence

Domestic violence is an offence and is one of the major causes for increase of crime index of the state. Domestic violence is an offence and is one of the major causes for increase of crime rate of the nation. Domestic violence is destructive behavior in an intimate relationship where one person tries to dominate and control other in a

dating or marital relationship or in cohabitation, which causes physical, psychological or sexual harm to those in that relationship. Forms of violence are facing by women society are deep and conditions are very pathetic. Violence against women can be mental, sexual, physical, emotional etc. Domestic Violence encompasses any behavior used by one person to exert control or power over another in domestic relationships.

It often occurs in private setting, making it difficult to detect and address. This violence can be in the forms of physical harm, emotional manipulations, financial restrictions or verbal abuse, all of which negatively impact the victims of well-being. Domestic violence can occur in any relationship regardless of gender, age, socio-economic status or cultural background. It often leads to serve emotional and physical harm, and in some cases, can be life-threatening. Many countries have laws and support system in place to help victims escape and recover from abusive situations in domestic sector.

Causes of Domestic Violence

Domestic violence is a complex issue that arises from a variety of interrelated factors. In Kerala, a state in southern India known for its high literacy rates and relatively progressive social indicators, domestic violence persists as a significant problem. The causes of domestic violence in Kerala are multifaceted, involving social, cultural, economic, and psychological factors. Here are some of the primary causes:

1. Patriarchal Norms and Gender Inequality

- Kerala has historically followed patriarchal structures that continue to influence societal expectations. Despite its high literacy rates, gender inequality persists in both public and private spheres.
- The traditional gender roles assign women to domestic duties, which can lead to frustration

and control over their lives. This can escalate to physical, emotional, or financial abuse when men feel their authority is threatened.

- A sense of male entitlement to control and dominate within the family structure can often result in violence.

2. Economic Factors

- **Unemployment and Financial Stress:** Kerala's economy, while diverse, has significant sections dependent on remittances from migrant workers. Unemployment, especially among younger men, can contribute to a sense of helplessness, frustration, and dependency on others, often leading to aggression in the home.
- **Economic Disempowerment of Women:** Though Kerala has made significant progress in women's education and workforce participation, many women still lack financial independence. Economic dependence on their husbands or other family members can trap women in abusive relationships as they may not have the resources to leave.

3. Alcohol and Substance Abuse

- Alcohol abuse is a major contributing factor to domestic violence in Kerala. Men who abuse alcohol may exhibit violent behavior due to lowered inhibitions and impaired judgment.
- The widespread use of alcohol in Kerala, coupled with the absence of effective rehabilitation systems, exacerbates instances of domestic violence.

4. Cultural Acceptance and Socialization

- In some communities, violence against women is normalized or excused as a private family matter. This cultural tolerance of violence can prevent women from speaking out or seeking

help, as it is often seen as a part of marital or familial dynamics.

- Kerala's socialization process may sometimes subtly promote the idea that women should tolerate abuse for the sake of family honor, leading to silence and inaction.

5. Lack of Awareness and Education

- Despite high literacy rates, awareness of legal rights and available support systems is often lacking. Many victims of domestic violence may not know where to turn for help or fear the stigma associated with speaking out against family members.
- Although Kerala has made significant strides in educating its population, especially women, the knowledge of legal protections or shelters might be minimal in some areas, especially in rural pockets.

6. Family Dynamics and Mental Health Issues

1. Dysfunctional family dynamics, such as past histories of abuse, strained relationships, or unresolved conflict, often contribute to an abusive environment.
2. Psychological issues such as untreated mental health disorders, personality disorders, or unresolved trauma from childhood can manifest as abusive behavior toward intimate partners.

7. Social and Religious Factors

- Kerala is a multicultural state with a complex social fabric, comprising various religions and caste groups. Within some communities, religious and cultural norms may implicitly endorse male dominance in family settings, contributing to the perpetuation of violence.
- Religious conservatism and caste-based hierarchies may also play a role in reinforcing gendered violence within families.

8. Weak Legal and Support Systems

- Though Kerala has laws in place to combat domestic violence, such as the Domestic Violence Act (2005), there is often a lack of adequate implementation. Limited access to legal support, police insensitivity, and delayed justice contribute to the continuation of violence.
- Victims of domestic violence may not always have the courage or support to approach law enforcement, often fearing further victimization or social ostracization.

Domestic Violence and Ngo's

NGOs play a major role in addressing domestic violence in Kerala offering support services and rehabilitation to survivor through counselling, legal aid and provide shelter homes etc. For instance the JANIKA Charity Foundation focuses on rehabilitation women and children affected by domestic violence. They organize training programs to help to survivors acquire skills for economic independence. NGOs in Kerala are instrumental in combating domestic violence through direct support and community engagement. Strengthening these organizations and addressing systematic challenges can enhance empower of survivors.

Protection of Women from Domestic Violence Act: 2005

The PWDV Act is an Act of Indian Parliament; this Act aims to protect women from domestic violence. PWDV Act came into force by the Indian Parliament from 25th October 2006. The Act provides the definition of domestic violence by Indian Law. Domestic violence includes not only physical violence but also other forms of violence such as emotional, verbal, sexual, economic abuse etc. This Act including five Chapters and 37 Sections. The Act protects the victims of bigamy and other void marriage and the male partner

living in the relationship in a nature of marriage. The act also focus on protecting women from domestic abuse that is, Protection Order, Monitory relief, Custody Order etc. The important Section of the PWDV Act is Section 17, 18, 19, 20, 21, 22, 23. Section 17 of the Act says that the women have every right to reside in a shared house. The special features of the PWDV Act provide prominence to the protection of victim rather than the punishment of the accused and finds solution to curb the Act of domestic violence. It guarantees the women, the right to reside in a shared household even after she has filed a complaint against her male relatives.

Impact of PWDV Act, 2005

The Protection of Women from Domestic Violence Act enacted in 2006 was designed to provide immediate and effective changes and some remedies for women facing domestic violence in India. In Kerala, the implementation and impact of this Act have been subject of various studies and so many analyses The highlights that while Act offers a comprehensive legal framework, its success is hindered by societal norms and underreporting, The reluctance of women to disclose incidents of domestic violence, due to cultural and social pressures remains a significant barrier to the PWDV Act's effectiveness. While the PWDV Act provides a necessary legal framework to combat domestic violence in Kerala, its impact is moderated by societal attitudes, underreporting and judicial practices. Addressing these challenges requires not only legal reforms nut also concerted efforts in societal sensitization and support systems to empower women to report and combat domestic violence effectively.

The Protection of Women from Domestic Violence Act, 2005 has had a major impact in Kerala, providing some legal framework to address domestic violence, enabling them to access

protection order, providing shelter homes and other support services leading to increased awareness and reporting of such cases. While also putting pressure on the Kerala State to implement effective mechanisms for its enforcement. However, the speedy and continuous efforts are needed to strengthen its implementation and address the social and cultural barriers that hinder women's access to justice.

Major Loopholes of the PWDV Act, 2005

The Protection of Women from Domestic Violence (PWDV) Act, 2005, has several significant loopholes. One of the primary issues is that it does not address relationships outside the traditional marriage framework, even though it deals with situations where men and women are in close emotional, economic, or physical contact. Additionally, delays in judicial procedures can be attributed to various factors, such as insufficient infrastructure, a shortage of manpower, and financial constraints, which ultimately affect the timely delivery of justice. The lack of interest among lawyers in taking up cases for victims and the shortage of magistrates further exacerbate delays.

Another critical issue is the lack of awareness among police officers and magistrates about the Act's objectives, combined with inadequate sensitivity training on domestic violence. As a result, many women face re-victimization within the judicial system, with police often dismissing their complaints as mere domestic disputes and sending them back to their abusers. Victims are also forced to endure repeated trauma by appearing in court for prolonged periods. Furthermore, discrepancies in the implementation of the Domestic Violence Act across various states, particularly the lack of protection officers, contribute to the difficulties in enforcing the law.

Suggestions For Improvement

Raise Public Awareness: It is crucial to increase public awareness and sensitization to reduce the prevalence of violence against women. **Promote Social Change:** Efforts should focus on changing societal attitudes to eliminate the subordinate status of women. **Awareness Campaigns:** Conduct awareness programs through platforms like Kudumbashree Units, and organize seminars in rural areas to educate people. **Tackle Gender Bias:** Schools, colleges, and university campuses should be involved in campaigns aimed at addressing gender biases and promoting gender equality. **Capacity Building for Stakeholders:** Organize training and sensitization programs at various levels like State, District, Block, and Panchayat to enhance the understanding and implementation of the Act. This revised version conveys the same message, but the sentences are restructured to improve clarity and flow.

Conclusion

From the above study that, it is clear that gender inequality remains the same as before. Even after the implementation of the Protection of Women from Domestic Violence Act 2006, the number of such type of cases is likely to increase. Total abolishment of the patriarchal value system of our society through education, awareness and empowerment in all spheres need to be emphasized. The Protection of Women from Domestic Violence Act 2006 is an effective one in Kerala Society but the infrastructure facilities like lack of protection Officer, Service Provider and lagging of cases in Court etc. is a failure and the administrative mechanism is also in to a certain extent. However continuous efforts are required to improve its implementation and make justice more accessible to all victims. The Act empowers women by granting them right such as protection order, residence rights, monetary relief, and custody order and also provide legal aid. The main point

highlighted that some progression are viewed that are judiciary, government, PWDV Act, 2006 related Service Providers, Protection Officer, working NGO's for women and Police Officers etc.

References

1. Varijakshan, K.K, &, SeenaRajagopal. (2007). *Protection of Women from Domestic Violence Act 2006*; Kochi:Swamy Law House, p. 13
2. Indira, Jaising, (October. 31, 2009), *Bringing Rights Home: Review of the Campaign for a Law on Domestic Violence*, Economic and Political Weekly, Vol.14, NO.44, P. 50
3. Abhishek, Singhvi.(2005, September), *Thrash it out Again*, New Delhi:Hindustan Times, P.11
4. Layna Kothari, (2009). *The Protection of Women from Domestic Violence Act Current Situation*, New delhi: HRLN Publishing.
5. Krishna kumari. S.(2016).*Protection of Women from Domestic Violence Act-2006*. Trivandrum: Pathiripally Publications, p. 45
6. Menon, N. (2021). "Domestic Violence in Kerala: Analyzing Socio-Cultural Factors." *Asian Journal of Social Science*. This paper delves into the impact of cultural norms and gender roles on domestic violence in Kerala.
7. Nair, P. (2020). "The Link Between Alcohol Abuse and Domestic Violence in Kerala." *Indian Journal of Social Work*.
8. Social Justice Department of Kerala (2020). "Kerala Domestic Violence Statistics and Trends." Government of Kerala.
9. Ramachandran, V. (2019). "Gender Inequality and Domestic Violence: The Role of Education and Economic Empowerment in Kerala." *Economic and Political Weekly*.
10. <http://www.apricusjournals.com>
<http://www.lawyerscollective.org>
<https://www.icrw.org>

Role of UNO in protecting Human Rights and Social Justice: An Analysis

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Abstract

“We the people of the United Nations, determined to reaffirm faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and men and of nations large and small”

United Nations charter

A right delayed is a right denied” by Martin Luther king. This work examines in to the enduring battle for human rights and social justice, analyzing the multifaceted challenges and encouraging progress that have defined this ongoing struggle. This article begins with tracing the historical evolution of human rights movements and their significant milestones. It the pivots to a comprehensive analysis of contemporary challenges, ranging from systematic inequalities to threats against individual liberties. And this article mainly discussed major challenges and progress of human rights and social justice. The intricate interplay between obstacles and achievements in the quest for human rights and social justice serves as a critical lens through which can better understand the dynamics of this unceasing struggle. This exploration is intended to provoke thought, foster dialogue and inspire continued dedication to the cause of universal human rights and social justice.

Keyword: Human Rights and Social Justice

Introduction

Social Justice and Human Rights are closely interconnected concepts that both aim to create a fair, equitable and inclusive society. In the sense of Social Justice is the concept ensuring that all individuals in society have equal access to opportunities, resources and benefits. It aims to rectify and prevent social inequalities and injustice. Human Rights are the basic entitlements and freedoms to which all individuals are inherently entitled. They encompass, civil, political, economic, and cultural rights and are protected by international and national laws. The term social Justice is a political and philosophical concept which holds that all equal access to wealth, health, wellbeing, justice and opportunity. (Social Justice

Definition) Social justice and Human Rights are two different concepts but they are associated with the society as well as human. These two concepts are interconnected with two terms of Rights and Justice. Indian constitution mentioned Rights is called fundamental Rights. Preamble of Indian constitution mention three types of Justice, they are social, economic and political. The rights and Justice secure all citizens of India. Throughout this paper discussed about the concept of Human Rights and Social Justice and role of UNO in protection of Human Rights and Social Justice.

Concept of Human Rights and Social Justice

In Emerging world, we have witnessed a Multitude of increasingly urgent demands for

Social Justice and for the protection of Human Rights. The Social Injustice like, race, caste, colour and sexual discrimination have been protested as violation of the Human Rights to equal opportunity and equality before law. The Human Rights means to an appropriate or adequate standard of living has been proclaimed on the basis of the injustice of un wealthy society in which the rich can enjoy luxuries while the poor lack the means to meet their basic human needs. Human Rights are fundamental rights and freedom to which all individuals are inherently entitled simply because they are human beings. These rights are universal, inalienable and indivisible, meaning they apply to all people, cannot be taken away and are interconnected. Social Justice refers to the fair and equitable distribution of resources, opportunities and benefits with in a society. In involves addressing systematic inequalities, discrimination and disparities to ensure that all individuals have a chance to lead a fulfilling life and participate in the social, economic, and political aspects of their community. Human rights encompass a wide range of civil, political, economic, social and cultural rights. They include the right to life, liberty and security, freedom from torture and discrimination, the right to education, health care and work, as well as the right to participate in one's government among others. Human rights provide a framework for protecting human dignity and promoting equality, Justice and peace. Social Justice aims to rectify and prevent social injustice including economic disparities, unequal access to education and health care, discrimination based on race, gender or other factors and various forms of marginalization. It is based principles of fairness, equity and inclusivity with the goal of creating a society where all members can enjoy their basic human rights without discrimination or disadvantage.

Human rights and Social Justice are closely related and interconnected concepts and they often reinforce and support each other in the pursuit of a fair and equitable society. Human rights and Social justice related to

Equity and Equality: Social Justice strives to rectify systemic inequalities and disparities in society. It seeks to distribute resources, opportunities and benefits in a way that ensures equality for all. Human Rights principle such as non-discrimination and equal protection under the law, are essential in achieving equity.

Protection of Rights: Human Rights are the fundamental rights and freedoms to which all individuals are entitled, including right to life, liberty, equality and no-discrimination. Social Justice aims to ensure that these basic rights are protected and guaranteed for all members of society especially those who are marginalized or disadvantaged.

Ending discrimination: Both human rights and social justice efforts to eliminate discrimination based on factors like race, gender, religion, disability and socio economic status. Human rights laws and conventions often explicitly prohibit discrimination and promote equal treatment.

Access to basic needs: Social justice endeavors to provide individuals with access to basic needs, such as education, health care, clean water and housing. These rights are often recognized as economic, social and cultural rights under human rights frame works.

Political participation: Human rights include civil and political rights, such as the right to vote, freedom of speech, and the right to participate in government. These rights are critical for fostering political and social systems that are just and responsive to needs of all citizens.

Legal frame work: Human rights provide the legal and ethical frame work for addressing social justice. They offer protection to individuals against abuses and violations, while social justice policies and initiatives work to prevent those violations from occurring in the first place.

Accountability: The principles of accountability and responsibility are central to both human rights and social justice. States and other duty –bearers are accountable for respecting protecting and fulfilling human rights. They are also responsible for promoting social justice by addressing systematic inequalities and ensuring equitable access to resources and opportunities.

Participation and inclusion: Social Justice Efforts often involve the active participation of affected individuals and communities in decision – making process. Human rights principles encourage this inclusion, ensuring that those whose right are at stake have a voice in shaping policies and practices.

Reconciliation and reparation: In post conflict or post-oppression contexts both human rights and social justice can play a role in reconciliation and reparations. Acknowledging past human rights violations is often a crucial step in achieving social justice and healing for affected communities.

Human rights serve as the ethical and legal foundations for social justice efforts. Social Justice Movements and initiative work to realize and expand upon the principles of human rights by addressing systemic injustice, promoting equality and advocating for fair and inclusive societies where all individuals can live with dignity and equal opportunities.

UNO Challenges and Progress in Human Rights and Social Justice

The United Nations (UNO) was established with the ambitious goal of fostering international

peace, security, and cooperation, and promoting human rights globally. With the adoption of the Universal Declaration of Human Rights (UDHR) in 1948, the UNO set a precedent for establishing global standards for human dignity and freedoms. Over time, its mandate has expanded to include social justice, poverty reduction, and sustainable development. Despite its foundational role in promoting human rights and social justice, the UNO has encountered numerous obstacles that hinder its ability to fully implement these ideals.

UNO's Human Rights Framework

Universal Declaration of Human Rights (UDHR)

Adopted by the United Nations General Assembly in 1948, the UDHR remains one of the most important documents in the field of international human rights law. It sets forth a broad range of rights, from civil and political rights to economic, social, and cultural rights. While the UDHR is non-binding, it has served as the foundation for subsequent international treaties and conventions, such as the International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social and Cultural Rights (ICESCR). These treaties have been ratified by a majority of countries, forming the backbone of international human rights law.

Despite the success of these frameworks in establishing universal human rights norms, the practical enforcement of these rights has proven to be a major challenge. Human rights violations, ranging from censorship and political repression to violence against marginalized groups, continue to be widespread, particularly in authoritarian states and regions afflicted by conflict (Meyer, 2019). The discrepancy between international human rights law and local political realities poses a significant challenge to the UNO's efforts.

The Human Rights Council (HRC)

The UN Human Rights Council, established in 2006, aims to promote and protect human rights around the globe. The Council addresses human rights violations, conducts investigations, and issues resolutions. However, it has faced criticism for its inability to hold powerful member states accountable. For example, despite widespread reports of human rights abuses in countries like Saudi Arabia and China, the HRC has often failed to implement meaningful sanctions or take strong actions against these states, in part due to political considerations and the influence of powerful UN member states (Smith, 2020).

In addition, the Council's membership process has often been critiqued for allowing countries with poor human rights records to gain positions of influence, which undermines the Council's credibility and effectiveness. These limitations highlight the inherent challenges the UNO faces when trying to enforce universal human rights in a politically complex world (Taylor, 2018).

The Struggle for Social Justice

Sustainable development goals (SDGs)

In 2015, the UNO introduced the 2030 Agenda for Sustainable Development, which consists of 17 Sustainable Development Goals (SDGs) designed to address global inequalities and promote social justice. The SDGs focus on a range of issues, including poverty eradication, gender equality, clean water, and climate action, among others. These goals are comprehensive and interconnected, aiming to ensure that “no one is left behind” in the pursuit of global development. While the SDGs represent a noble effort to tackle global inequality, their implementation has been uneven, particularly in low-income countries. Disparities in financial resources, political will, and international cooperation often hinder the

progress of these goals (Miller, 2021). For instance, the goal of achieving universal access to education by 2030 is at risk, as millions of children in conflict zones or in impoverished regions remain excluded from formal schooling (Watkins, 2022).

Inequality and social justice movement

Despite the progress embodied in the SDGs, global inequality remains a significant barrier to social justice. The wealth gap between the Global North and South has continued to widen, exacerbated by issues like tax evasion, environmental degradation, and the unequal distribution of resources. Furthermore, marginalized communities—such as indigenous peoples, refugees, and ethnic minorities—continue to face systemic discrimination, limiting their access to social, economic, and political rights. Social justice movements, such as **Black Lives Matter** and **#Me-too**, have brought global attention to issues of racial and gender inequality. These movements highlight the importance of both grassroots activism and institutional change. In response, the UNO has worked to amplify the voices of marginalized groups through its Special Rapporteurs and other mechanisms designed to raise awareness and push for reforms at the international level (Rodriguez, 2023).

The Challenges Facing the UNO

Political dynamics and Geopolitical Conflicts

One of the most significant obstacles the UNO faces in advancing human rights and social justice is the political dynamics between member states. The United Nations Security Council (UNSC), with its five permanent members (the U.S., Russia, China, France, and the United Kingdom), holds veto power, which often leads to paralysis in addressing human rights violations in politically sensitive regions. For example, the UNSC has been criticized for its inaction in the face of human

rights crises in Syria and Myanmar, where powerful nations have blocked resolutions aimed at protecting civilians (Dunn, 2020). This geopolitical conflict undermines the UNO's credibility and effectiveness in promoting human rights globally, as major powers use their vetoes to protect their strategic interests, often at the expense of human rights and social justice.

Resource constraints

Another challenge is the UNO's limited resources to address the many issues on its agenda. Human rights and social justice programs often lack sufficient funding, and the UNO is often reliant on voluntary contributions from member states. This reliance on the goodwill of states creates uneven support for various initiatives, with certain human rights programs suffering from underfunding or lack of political backing (Jones & Allen, 2021). Furthermore, the complex nature of humanitarian crises, such as refugee movements and climate-induced displacement, often outpaces the UNO's ability to respond effectively.

Progress and Initiatives

Role of NGOs and Civil Society

While the UNO faces significant institutional challenges, non-governmental organizations (NGOs) and civil society actors have played a vital role in advancing human rights and social justice. Organizations such as Human Rights Watch, Amnesty International, and Doctors Without Borders have been instrumental in documenting human rights abuses, advocating for international action, and providing direct assistance to those in need. The partnership between the UNO and these organizations has helped to overcome some of the constraints posed by state sovereignty and limited resources.

International Justice and ICC

The establishment of the International Criminal Court (ICC) in 2002 was a major step toward

achieving justice for victims of atrocities. The ICC has prosecuted individuals for war crimes, crimes against humanity, and genocide, sending a clear message that impunity will not be tolerated. However, the ICC has faced significant challenges, particularly in securing the cooperation of powerful states like the United States, Russia, and China, which have not ratified the Rome Statute and are not subject to its jurisdiction despite these challenges, the UNO has achieved notable successes in the realm of human rights and social justice. One example is the decolonization process, where the UNO played a critical role in supporting independence movements across Africa, Asia, and Latin America. This led to the formation of new nations and the gradual eradication of colonial rule, contributing to greater self-determination and social justice.

Another example is the campaign against apartheid in South Africa. The UNO, through sanctions, diplomatic pressure, and advocacy, played a crucial role in ending the apartheid regime, leading to the establishment of a democratic and inclusive South Africa, where human rights and social justice are better protected. The UNO's role in protecting human rights and promoting social justice has been both transformative and challenging. While it has established a strong legal and institutional framework for the protection of rights, and has made significant strides in conflict resolution, humanitarian aid, and social justice advocacy, numerous challenges remain. The evolving nature of global politics, the dynamics of power within the Security Council, and the persistent challenges of inequality and conflict necessitate continued reform and innovation within the UNO. Nonetheless, the international community must support the UNO's efforts in upholding human dignity and striving for a more just world.

Conclusion

The United Nations Organization (UNO) has made significant strides in advancing human rights and social justice since its establishment, particularly through landmark documents like the UDHR and the SDGs. The efforts of institutions like the Human Rights Council (HRC) and the International Criminal Court (ICC) have contributed to global awareness and accountability. However, the struggle for human rights and social justice remains far from over. Political conflicts, resource limitations, and the failure of powerful member states to fully comply with international norms continue to undermine the effectiveness of the UNO's initiatives. To make meaningful progress, the UNO must adapt to contemporary global challenges, strengthen enforcement mechanisms, and ensure that both member states and non-state actors are held accountable. Only through collective action and the unyielding commitment to human dignity can the UNO hope to achieve its goal of a just and equitable world for all.

References

1. Kanie .N & Biermann .F (Eds). (2017). Governing through goals: Sustainable Development goals as governance innovation. <https://ebookcentralproquest.com.ezproxy.hamkebooks/detail.action?docID=5512113>
2. United Nations (1992) Report of the United Nations conference on Environment and Development. Rio declaration on environment and development. <https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/ACONF.15126vol.1Declaration.pdf>
3. United Nations (2000).United Nations Millennium Declaration<https://www.ohchr.org/EN/professionalinterest/pages/Millennium.aspx>
4. United Nations (2012). The future we want<https://sustainabledevelopment.un.org/content/documents/733Futurewewant.pdf>
5. United Nations (2015). The millennium Development Goals Report 2015.[https://www.un.org/millenniumgoals/2015MDGReport/pdf/MDG%202015%20rev%20\(july%201\).pdf](https://www.un.org/millenniumgoals/2015MDGReport/pdf/MDG%202015%20rev%20(july%201).pdf)
6. United Nations (n.d.a).Transforming our world: The 2030 Agenda for Sustainable Development.<https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20Sustainable%20Development%20web.pdf>
7. United Nations Department of Economic and Social Affairs (n.d). Agenda 21.
8. <https://www.un.org/esa/dsd/agenda21/resagenda2100.shtml>
9. <https://www.un.org/en/academic-impact/sustainability>. <https://sdgs.un.org/goals>
10. https://crpf.gov.in/writereaddata/images/pdf/The_Security_Council_and_the_Protection_of_Human_Rights.pdf
11. <https://www.ohchr.org/en/instruments-mechanisms/instruments/declaration-right-and-responsibility-individuals-groups-and>
12. <https://www.unfpa.org/resources/human-rights-principles>
13. <https://www.amnesty.org/en/what-we-do/universal-declaration-of-human-rights/>

Salient Features of Indian Philosophy

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Abstract

India's philosophical system is a quest for truth and attempts to constructive suitable ways of approaches to truth. India has one of the oldest and longest traditions of philosophical thinking in the world. The instruction of preceptors and systems of vision combine rational investigations, logic and epistemology of life. The approach makes the philosophical systems both humanistic and scientific, practical and theoretical correlating vision leads to a "correct way of thinking" as well as "Right way of living", human being at the center of all cognitive enterprises, all philosophical activities, instead of ending in intellectual exercise, a larger purpose of answering questions, about the life and death, the destiny of man, the nature of thinking and source of the world etc. Moksha is the ultimate aim of human being. Here, each philosophy help human being to achieve Moksha through its ownway. Vedas are the earliest available Indian literature on record. There were nine schools of thought in Indian philosophy. It is difficult to establish the chronological sequence of development of schools of indian philosophy. Dr. Radhakrishnan has distinguished between the periods of Indian philosophy in to three. First one is Vedic period (1500BC to 600BC), this period denotes the settlement and expansion of the aryaans. Second one is the epic period (600 BC to AD 200) .This period covers the age between early upanishads and the various systems or schools of philosophy. The third one is Sutra period (from AD 200), Schools of philosophy that it gave sutras as a means of encapsulating rise to the literary works. The fourth one is scholastic period (from AD 200), A lot of literary exercises being reduced to polemics that generated controversies.

Keywords: Sankhya-Yoga-Nyāya- Vaiśeṣika - PurvaMimāmsa- UttaraMimāmsa, Dharma, Artha, Kāma, Moksha

Introduction

In India every philosophical thoughts have its own significance. Attainment of Moksha is the essence of all philosophical thoughts. Indian philosophical system is mainly divided into two types. They are Orthodox philosophy and Heterodox philosophy. This classification is also known as Āstika Darshana and Nāstika Darshana. According to this classification, Sage Kapila is the founder of Sankhya philosophy, Sage Patanjali is the founder of Yoga philosophy, Sage Goudama

is the founder of Nyāya philosophy, Sage Kanāda is the founder of Vaiśeṣika philosophy, Sage Jaimini is the founder of Purva Mimāmsa, and the Sage Bādarayana is the founder of Uttara Mimāmsa philosophy. These are come under the Āstika Darsana. Cārvāka, Jaina, Bauddha are the Heterodox system. Sage Cārvāka is the founder of Cārvāka philosophy, Sage Mahāveera is the founder of Jaina philosophy, Sage Bauddha is the founder of Bauddha philosophy. These are come under the NāstikaDarsana.

The different philosophies developed over long spells of time. Indian Philosophy is all about four types of Purushārthās-

1. Dharma – Righteousness – Moral Values.
2. Artha – Prosperity – Economic Values.
3. Kāma – Pleasure, Love, Psychological Values.
4. Mokṣha – Liberation – Peace, Transcendental Stage of Life, Spiritual Values.

Indian Philosophy is inward looking and aims to help human beings deal with up and down of life with the goal of Self-realization. The Sanskrit word for Philosophy is Darśana, which means “direct vision”. The word symbolizes difference between modern and western Philosophy, which mainly relies on an intellectual pursuit and Indian Philosophy that relies on a direct vision of truth and pure buddhi, reasoning. The beginning of Philosophy in India occurred in the very remote past, and there is tangible evidence that before or about 1000 BC. Philosophy in India emerged as speculation about the unity and the ultimate ground of the world, in close connection with religion, from which it never separated itself. While religion continuously nourished it, it transformed and developed religion from within. The important philosophical contribution of the RigVeda is its discovery and assertion of the unity of Gods and world. In ancient India at one time philosophy was conceived as the rational, critical and illuminating review of the contents of theology, economics and political science and also as the right instrument and foundation of all actions and duties, which helped one to achieve intellectual balance and insight as well as linguistic clarity and behavioral competence.

Some of the features of Indian philosophy are,

Metaphysics and Epistemology

1. Spiritual Orientation: Indian philosophy is deeply rooted in spirituality and the quest for ultimate reality.

2. Concept of Brahman: The ultimate reality is often referred to as Brahman, which is considered to be the unchanging, all-pervading, and eternal essence of the universe.
3. Theory of Karma: The concept of karma, which states that every action has consequences, is a central theme in Indian philosophy.
4. Reincarnation and Transmigration: The idea of reincarnation and transmigration, which suggests that the soul is reborn into a new body based on its karma, is a common feature of Indian philosophy.

Logic and Reasoning

1. Emphasis on Reasoning: Indian philosophy places a strong emphasis on reasoning and logical inquiry.
2. Development of Logic: Indian philosophers developed a sophisticated system of logic, which included the concepts of inference, deduction, and induction.
3. Use of Analogies and Metaphors: Indian philosophers often used analogies and metaphors to explain complex philosophical concepts.

Ethics and Morality

1. Emphasis on Dharma: Indian philosophy places a strong emphasis on dharma, which refers to an individual's moral and social obligations.
2. Concept of Ahimsa: The concept of ahimsa, or non-violence, is a central theme in Indian philosophy.
3. Importance of Self-Control: Indian philosophy emphasizes the importance of self-control and self-discipline in achieving spiritual growth and liberation.

Soteriology

1. Concept of Moksha: Indian philosophy places a strong emphasis on the concept of moksha, or liberation, which refers to the attainment of spiritual freedom and enlightenment.
2. Paths to Liberation: Indian philosophy offers various paths to liberation, including the paths of knowledge, devotion, and action.
3. Importance of Guru-Shishya Parampara: Indian philosophy emphasizes the importance of the guru-Shishya Parampara, or the tradition of spiritual guidance, in achieving liberation.

Influence on Other Philosophies

1. Influence on Buddhism¹ and Jainism²: Indian philosophy has had a significant influence on the development of Buddhism and Jainism.
2. Influence on Western Philosophy: Indian philosophy has also had an influence on Western philosophy, particularly in the areas of logic, ethics, and metaphysics.

Conclusion

The knowledge of Indian Philosophy, inculcates in a person, the habit of reflecting on one's life, thought and action, on what is happening in the society of which he is a member and in the world-community of which his society is a component, it is surely doing something practical and Purposeful. The philosophical elements of Indian is, enable one not only to judge and decide for oneself on religious, moral, social, and political problems, but to express oneself appropriately, and hopefully even to act meaningfully in different situations.

References

1. A Companion To Sanskrit Literature, Edn.1, Suresh Chandra Banerji, MotilalBanarsidass, Varanasi, 1971
2. The Critical Study of Praśastapādabhāṣya, PeeruKannu, Kanishka publishing house, Delhi, 1992
3. PadārthaVijnāna, Dr.K.V.L. Narasimha-charyulu, chowkhambakrishnadas academy Varanasi, 2004.
4. A History of Indian Philosophy, Volume I, Edn. 1, SurendranathDasgupta, MotilalBanarsidass, Delhi, 2012.
5. Outlines Of Indian Philosophy, M. Hiriyanna, MotilalBanarsidass Publishers, Delhi 2014
6. TarkaSamgraha, With The DīpikaOf Aṇṇambhaṭṭa, Sri Ramakrishna Math Mylapore, Madras, 2015.
7. Essays On Logic, Integrating Modern And Traditional Logical Theories, Dr. AjimonC.S (Editor), Department Of NyāyaGovt. Sanskrit College, Tripunithura, 2015.

Historicizing the Road Development in Colonial Kozhikode

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Abstract

Road development is essential policy of colonial government. In Kerala, Malabar was the direct control of British. Kozhikode is the capital of the Malabar district. So many road development activities are done by the authority. Before the coming of British, most of the road are constructed by the Mysorean rulers in Malabar. Many long distance and city road roads are expanded during this time. Major motive of rulers for road development was military and administration needs. The road construction had made great impact on the socioeconomic aspects of people of Kozhikode.

Keywords: Road Development, Kozhikode Municipality, Mysorean Rule, Ghats Road, Trunk Road, Railway.

Introduction

Road network is one of the major pillars of progressive nation. In India, modern road development occurred during the colonial period. After the 1830s, road network widely began to develop in various part of the India. According to Dada Bhai Naoroji and R.C Dutt, infrastructure development is the means of exploitation. Governor General Lord William Benintinck and Lord Dalhousie are play a major role in development in India. Dalhousie organized the Public work department in India.

In 18th and 19th century road development also occurred in Travancore, Cochin and Malabar region of Kerala. In Travancore and Cochin, road is developed by the rulers of Princely state. But in Malabar, it was done by the colonial government. Malabar was district of the Madras province. Kozhikode is the capital of Malabar district. In this paper analyze the road development in colonial Kozhikode.

Methodology

The study is following the methodology of social history as primarily following the collection of data. The study is both descriptive and analytical. The study primarily based on published work and personal interview. Some archival work like debate of Municipal council are used.

Analysis and Result

Climate and physical character are not suitable for road construction in Malabar. Mysore Ruler, Tipu Sulthan considered as the pioneer in road development in Malabar. After the invasion of Mysore rulers in Malabar, the importance of road are increased. By 1807, Malabar was intersected by better roads perhaps than any other region of Madras. In 1831, government organized many funds for road construction. The last half of the 19th century witnessed large scale expansion of road network in Malabar. Francis Buchanan described the Malabar road as 'Elegant Avenues'. During this time, both side roads are planted by trees like Jackfruit and Mango tree.

Kozhikode is the capital of Malabar district. This place emerged as a port city came after 13th century. It is the main maritime road between Arab country and South east Asia. Major ruling power of this region was Zamorins of Kozhikode. After the 1792, Kozhikode came under the direct control of British government. During this time, area of Kozhikode city existed from Puthiyagadi to Kozhikode and from beach to S.M street. In 1866, Kozhikode Municipality is formed.

Road Development occurred in various part of Kozhikode during colonial period. Authorities are given much importance to road construction in Kozhikode due to its capital status of Malabar district. During the Anglo-Mysorean war, many new numbers of road are constructed. Their major motive of this are military and administrative needs. One of the major roads developed during this time is Thamarasserry Ghats road. This was first constructed by Tippu and later it expanded by colonial government.

When the new road was constructed, maintenance was done along with public. It is responsibility of people to look after the road. For this purpose, the government-imposed toll on the vehicle. Colonial government mainly build for military and administrative function. They expanded many roads constructed by the Mysorean Rulers. In 1813, they built first bridge in Feroke. At the same time Kallayi bridge also constructed. Later in 1888, Feroke bridge reconstructed with iron due to damage. New industrial establishment in this area increased the importance of Feroke Bridge. In 1884 Thiruvannur Cotton mill and In 1885 Feroke Tile factory are emerged in this part.

By the second half of the 19th century, Kozhikode was connected with various part of Malabar. Due to the development of main road, many secondary road also developed. Thamarasserry Ghats's road is one of the main

road which helped the colonial authorities to link with plantation in Wayanad. Between 1860 and 1870, a new Thamarasserry Ghats road was constructed with the help of Madras government. Kuttiadi Ghats roads is mainly developed for the military purpose. There existed a coastal road between Kannur and Kozhikode constructed by Tippu. Later colonial authorities developed this road. Some of the other main road in the Kozhikode are Madras-Kozhikode Road (94 miles) and Gudalur-Kozhikode Road (40 miles).

The early road in the Kozhikode are mud road. Later stone and tar road are emerged. The Responsibility of construction of road by the Madras government, Local Board and Municipal council. Public work department had the responsibility of planting of trees in both side of roads. Some of the road are constructed with the full fund of Madras government. Like Kozhikode and Palakkad Road. Road in Kozhikode mainly divided into three categories. Trunk road and frontier road are included in First Class. The metal road are included in second Class. Mud road and small road include in third category. First concrete road in Madras Presidency are constructed in Big Bazar by using the fund of Kozhikode Municipal Council.

Road expansion lead to the progress of Kozhikode city. Due to the capital status of Malabar district, many administrative buildings are concentrated in the city. It is also center of commercial activities. So large scale of people came to this city. Due to this, authorities tried to develop many roads in city. Most of the road in city are maintained by municipal council. The establishment of Kozhikode Railway station in 1888 lead development of new road. Robinson road is one of them. Spread of railway to Mangalore in 1907, reduced the importance some road like Kozhikode -Kannur Road. For the expansion of

road in cities many building are demolished, even religious buildings. Some of the roads that are constructed during this time are Kallai Road, Beach road, Francis Road, Palayam Road, Pavamani Road, Court Road, Customs Road, Gandhi road (Ivans Road), Camp Bazar road (S.M Street).

Conclusion

During the colonial period many roads are developed in Kozhikode. It made great impact on socio-economic aspects of people. This helped people to travel in various part of district. Many new types of transport facilities began to emerge during this time. Modern mode of transportation like Tram train tried implement in Kozhikode. Many roads in colonial period are existed even today without changing its basic character. This is one of the major contributions of colonial government. Some roads name are changed in various times. Present day, Kozhikode roads density are increasing day by day. So the government authorities are expanding the road year by year. Today Kozhikode city roads is one of the major high traffic roads in Kerala state.

Endnotes and References

1. Innes C.A and Evans F.B, (1905) *Malabar District Gazetteers*, Vol.1, Government Press, Madras, 1951.
2. Logan William, *Malabar Manual*, (1885), Asian Educational Services, New Delhi, 2010.
3. Interview with Mohan, Local Scholar, Age 61, Time 5.00PM, 23/12/2024.
4. Balakrishnakurip.K, *Kozhikodinte Charithram*, Mathrubhumi Books, Kozhikode, 2019.
5. Iyyer Krishna A.V, *The Zamorins of Calicut*, Norman Printing Bureau, Kozhikode, 1938.
6. Krishnan T.V, *Malabar Pravisya*, Mathrubhumi Books, Kozhikode, 2008.
7. Seluraj T.B, *Innalekalile Kozhikode*, Mathrubhumi Books, Kozhikode, 2015.
8. Seluraj T.B, *Kozhikodinte Paithrukam*, Mathrubhumi Books, Kozhikode, 2011.
9. Raman Adithya and Raveendran Vidhya, "Infrastructure and Public work in Colonial India, towards a conceptualized History "Wiley, 2017.

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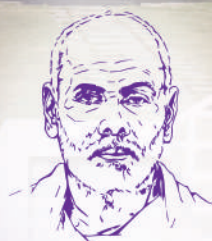
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