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FOREWORD

I am pleased to present to you all the Volume -XIV, Issue – I December 2024 Nirma University Law Journal (NULJ) Peer reviewed and Referred Journal. The Journal aims to encourage writings that are interdisciplinary in nature expanding contemporary issues across disciplines likewise as sociology, Political Science, Public policy, Economics, Science and Technology, and contemporary aspects in the context of law. I am happy to share that the article that has been published in this Journal is indexed to HeinOnline, EBSCO, Manupatra, and SSC Online. The overwhelming response we received from contributors for the publication of Volume XIV, Issue I.

Nirma University Law Journal has completed the Twelve year of a landmark journey of publication exploring and changing dynamics of law at national and global scenarios, with a sense of spirit of inquiry resulting the new knowledge and path-breaking insights of mundane ideas and ways of living.

The veritable contributions are indicative of the efforts and ingenuity of the author, and the academic and practical impact on the reader its must be credited to the qualitative and insightful writings of the authors. On behalf of Nirma University, I congratulate the authors for maintaining the highest standards of academic honesty and purity of thought and editorial members including Tanisha Rai and all peer reviewers of NULJ December 2024 Issue.

We feel pride in being a medium of expression broadcasting novel ideas and being a crucial platform for legal, interdisciplinary, and contemporary legal discourse.

Prof. (Dr.) Madhuri Parikh
Chief Executive, Nirma University Law Journal
Director and Dean
Institute of Law, Nirma University

TABLE OF CONTENTS

Articles

INTER SECTIONS OF AI AND LAW ENFORCEMENT IN INDIA: POLICIES AND LEGAL IMPLICATIONS 01
Harshit Choubey & Himanshu Yadav

FROM SOURCE TO SEA: LEGAL PERSPECTIVES ON HARMONIZING WATER MANAGEMENT AND OCEAN PROTECTION 21
Siddharth Tyagi & Mayuri H Pandya

MENSTRUAL LEAVE POLICY IN INDIA: PROGRESSIVE OR REGRESSIVE APPROACH? 45
Nikhil Jain

ADDRESSING THE MANIPUR CRISIS: POLICY INTERVENTIONS AND PATHWAYS TO RECONCILIATION 63
Bhanu Pratap Singh & Sarah C. Nunthuk

DECODING THE CONERGENCE AND DIVERGENCE IN AI PATENTABILITY: AN ANALYTICAL COMPARISON BETWEEN INDIA AND GLOBAL LEGAL REGIMES 83
S. Hariharan & Gokulnath Shanmugam

Case Comment

HAMDARD NATIONAL FOUNDATION (INDIA) V. SADAR LABORATORIES PVT. LTD 101
Saumya Verma

INTERSECTIONS OF AI AND LAW ENFORCEMENT IN INDIA: POLICIES AND LEGAL IMPLICATIONS

Harshit Choubey*
Himanshu Yadav**

ABSTRACT

This paper discusses an AI and its foundational concepts, and explores the current status of AI in India and focusing on prevalent AI-related crimes such as deepfakes, phishing, and hacking. The transformative potential and challenges of AI integration across various sectors, including the legal profession, justice system, healthcare, and education. The global legislative approaches to AI, focusing on countries like the United States of America, United Kingdom, and Singapore, provides insights into best practices and regulatory models. The strategic measures that ensure ethical, transparent, and accountable AI deployment. The actionable steps for the Indian legal system, emphasizing the importance of balancing innovation with safeguarding fundamental rights. AI deployment in law enforcement, ultimately guiding policymakers, legal professionals, and technology developers toward a more equitable future. It stresses the need for continuous monitoring, updating regulations, and fostering collaboration between various stakeholders to address emerging challenges effectively.

Keywords: *Artificial Intelligence, Law Enforcement India, AI Policies, AI-related Crimes, Legal Framework, Global Legislation, Ethical AI, Fundamental Rights.*

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I. INTRODUCTION

"The question is not whether intelligent machines can have any emotions, but whether machines can be intelligent without any emotions."

-Marvin Minsky, 1986

In a momentous colloquium at Dartmouth College in 1956, John McCarthy forever changed the landscape of technology by introducing the term "Artificial Intelligence (AI)" and defining it as "The science and engineering of making intelligent machines, especially intelligent computer programs. It is related to the similar task of using computers to understand human intelligence, but AI does not have to confine itself to methods that are biologically observable".[1] This pivotal event marked the beginning of a new era in AI research, shaping the course of its development ever since. This event marked a significant beginning of the scientific discipline of AI.

Artificial Intelligence (AI) an extraordinary capability of a system as a machine to replicate human intelligence. The goal of AI is to develop a machine that can imitate human thinking and actions, including perception, and other cognitive functions. Intelligence is a key characteristic that distinguishes humans from animals. It encompasses the fascinating realm of computer systems that possess the remarkable ability to carry out tasks that were once exclusive to human intelligence. These tasks include speech recognition, decision-making, and pattern identification. AI is a vast field that covers a range of technologies, such as machine learning, deep learning, and natural language processing (NLP).[2] Amidst the ceaseless waves of industrial revolutions, an ever-growing array of machines steadily supplant human labor across various domains. The impending substitution of human resources by machine intelligence looms as the next formidable hurdle to surmount. Countless scientists are captivated by the realm of AI, resulting in

[1] J McCarthy, 'What is Artificial Intelligence?' (2007) Stanford.edu http://www-formal.stanford.edu/jmc/ accessed 2nd February 2024.
[2] M C Tai, 'Artificial Intelligence: A powerful Padagrim for Scientific Research' (2021) National Library of Medicine https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7605294/ Accessed: 2 February 2024.

a research landscape that is both abundant and varied. AI research encompasses a wide range of fascinating fields, such as search algorithms, knowledge graphs, natural language processing, expert systems, evolution algorithms, machine learning (ML), deep learning (DL), and other related fields. It is subject to diverse interpretations, with certain individuals regarding it as the engineered technology that empowers machines and computers to demonstrate intelligent actions. Many consider it to be an apparatus that replaces human labor to produce results for humans that are more rapid and efficient. Certain individuals regard it as a "system" capable of precisely analyzing external data, deriving knowledge from that data, and employing that knowledge to achieve specific objectives and duties through flexible adaptation.[3]

II. STATUS QUO IN INDIA

Artificial Intelligence (AI) is transforming sectors like healthcare, education, law enforcement, and agriculture in India. While AI enhances and precision, its adoption raises significant ethical concerns, particularly around accountability and transparency. AI employs algorithms to mimic human decision-making and intelligence, creating opportunities and challenges. In the Indian legal system, AI can improve accuracy and streamline processes, but questions about fairness and responsibility must be addressed to ensure ethical implementation. The establishment of bodies like CEAILF and NITI Aayog's NSAI discussion paper highlights progress in AI regulation. India's upcoming AI program, equipped with extensive datasets, underscores the urgency of a robust legislative framework to address accountability and transparency. Such a framework is critical to using AI in legal decision-making with fairness and reliability, preserving the integrity of the judicial system and fostering trust in its application.

[3] A. Kalpan, and M. Haenlain, 'Siri, Siri, in my hand: Who's the fairest in the land? On the interpretations, illustrations, and implications of artificial intelligence' (2019) Science Direct. Available at: https://www.sciencedirect.com/science/article/abs/pii/S0007681318301393 Accessed: 2 February 2024.

The Indian legal system has not yet adopted any written laws, statutory rules, or policies that directly cover the use of AI. Setting up a system to control AI would be very important for guiding different groups in India through the responsible management of AI. Several sector-specific frameworks have been proposed for the development and use of AI. SEBI, the regulatory authority in the financial industry, released a circular in January 2019 outlining the reporting obligations for stockbrokers, depository participants, recognized stock exchanges, and depositories regarding the utilization and provision of Artificial Intelligence and Machine Learning (ML) applications and systems.[4]

II. (A) AI-related Crimes in India

The settings of AI-related crimes in India are constantly changing, reflecting the fast breakthroughs in technology and the need for appropriate legal frameworks. The backdrop of Indian legislation governing AI and its associated crimes consists of a mix of current laws updated to suit new difficulties and evolving policies aimed at thoroughly regulating AI technology. AI's role in cybercrimes is growing, as phishing attacks, deepfakes, and automated hacking efforts become more widespread. The Information Technology Act of 2000 (IT Act), which was updated in 2008, is the major legislation addressing cybercrime in India. This act incorporates many provisions pertaining to AI-related crimes. Some of the major AI-related crimes in India are:

II. (B) Deepfakes and Generative AI

Deepfakes are digital media, including videos, audio recordings, and images, that have been altered and manipulated using Artificial Intelligence (AI). Due to their highly realistic nature, deepfakes can be utilized to tarnish reputations, create false evidence, and erode trust in democratic institutions. This technology has also made its way into political messaging and poses a

[4] M. Raman and A. Talukdar, 'India: The Role of Legislation in The Regulation Of Artificial Intelligence (AI)' Mondaq. https://www.mondaq.com/india/new-technology/1353080/the-role-of-legislation-in-the-regulation-of-artificial-intelligence-ai Accessed: 2 February 2024.

significant threat as the general elections approach too. These are created by using AI and machine learning to alter images, videos, or audio, blurring the lines between reality and fiction. While beneficial in education, film production, criminal forensics, and art, they can also be exploited to harm individuals, disrupt elections, and spread misinformation. Although tools like Photoshop have been used for decades, deepfake technology first emerged in 2017 when a Reddit user used AI software to superimpose celebrities' faces onto pornographic videos. In 2020, AI-generated deepfakes were employed for the first time in political campaigns through a series of videos featuring Bhartiya Janta Party (BJP) leader Mr. Manoj Tiwari. These videos, circulated across numerous WhatsApp groups, depicted Mr. Tiwari making allegations against his political rival Mr. Arvind Kejriwal in both English and Haryanvi. This was only one of many instances in which deepfakes served as instruments for illicit activities.[5]

II. (C) Sophisticated Phishing Attacks

Phishing attacks are deceptive efforts aimed at obtaining personal details like usernames, passwords, and credit card information by pretending to be a trustworthy organization through electronic communication. These assaults are typically launched by email, instant messaging, social media, or rogue websites. Perpetrators frequently employ fraudulent strategies, such as appearing to be a real organization or individual, to fool victims into disclosing private information.[6] One phishing incident in India occurred in 2020 when fraudsters attacked clients of a major Indian bank. The attackers used phishing emails to trick naïve clients into believing they were from the bank these emails featured bogus links that drove users to websites impersonating the bank's official online portal.

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[5] A Bhaumik, 'Regulating Deepfakes and Generative AI in India Explained' (2023) The Hindu, 4 December https://www.thehindu.com/news/national/regulating-deepfakes-generative-ai-in-india-explained/article67591640.ece accessed 18 May 2024.

[6] H Choubey, 'Identity Theft- A Contemporary Threat' (2023) National Journal of Cybersecurity, 16 December https://lawjournals.celnet.in/index.php/njcsl/article/view/1449 accessed 18 May 2024.

II. (D) Automated Hacking Attempts

Automated hacking employs tools and scripts to exploit vulnerabilities in systems, often targeting data theft, service disruption, or malware installation. These attacks range from simple brute force password attempts to complex exploits of security flaws. A notable example occurred in November 2020, when Mumbai's power grid suffered a major disruption due to an automated hacking campaign linked to Red Echo, a suspected nation-state actor. This group infiltrated the grid's IT infrastructure using automated techniques, exposing vulnerabilities in critical systems. AI systems, which process vast amounts of personal data, further amplify concerns about data privacy and protection. India's current data protection framework, governed by the IT Act and related rules, is inadequate to address AI's complexities. The Digital Personal Data Protection Act, 2023, aims to establish a stronger framework, focusing on consent, data minimization, and accountability. Its implementation will pivotal in ensuring responsible data handling and mitigating AI-related privacy risks.[7]

III. POLICIES ON AI IN INDIA

The Indian Government has prominently prioritized the development, adoption, and promotion of AI, based on the belief that AI has the potential to enhance quality of life and foster an inclusive society. India's AI policies demonstrate a robust dedication to utilizing AI for economic and social advancement. Nonetheless, overcoming current deficiencies by implementing comprehensive legal frameworks, strengthening data protection, establishing ethical guidelines, investing in infrastructure, and promoting inclusive growth initiatives will be essential for the responsible and effective deployment of AI technologies in the country.

[7] Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information) Rules 2011, India Vol IN098 (2011) WIPO.

III. (A) NITI AAYOG'S National Strategy for AI [8]

India has taken a unique path in its National AI strategy, focusing on the use of AI not just for economic growth but also to promote social inclusivity. Led by NITI Aayog, the government think tank that devised and outlined the strategy, this initiative is referred to as AI for all. As a result, the strategy is designed to:

- Empower and quip Indians with the requisite skills to secure high-quality employment opportunities;
- Allocate investments towards research and sectors capable of maximizing both economic growth and societal impact; and
- Propagate Indian-developed AI solutions to benefit other developing nations.

NITI Aayog released India's AI strategy document on June 4, 2018, following a meticulous formulation process. This involved collaboration with experts and stakeholders, alongside the implementation of AI projects across various domains with detailed proofs of concept. Central to this initiative is the branding of AI for all, reflecting India's ambition to lead in AI development while addressing its societal needs and aspirations. The strategy positions AI as a pivotal driver of inclusive socio-economic growth in India, aiming to lead in AI technology globally. NITI Aayog focuses on healthcare, agriculture, education, smart cities and infrastructure, and smart mobility and transportation. It evaluates the current AI ecosystem, identifies sectors for integration, and provides over 30 policy recommendations, emphasizing research investments, skill development, AI adoption, and ethics. Key initiatives include establishing Centres for Research Excellence in AI (COREs) and International Centres for Transformation AI (ICTAIs), along

[8] Future Networks (FN) Division, 'Artificial Intelligence (AI) Policies in India- A Status Paper' (Telecommunication Engineering Center, August 2020) Future Networks (FN) Division, 'Artificial Intelligence (AI) Policies in India- A Status Paper' (Telecommunication Engineering Center, August 2020) https://tec.gov.in/public/pdf/Studypaper/AI%20Policies%20in%20India%20A%20status%20Paper%20final.pdf accessed 18 May 2024 accessed 18 May 2024.

with measures to enhance workforce skills and ensure ethical AL deployment.

III. (B) AI Initiatives by Ministry of Electronics and IT (MEITY)[9]

To address the societal and economic impacts of AI, MeitY established four committees in 2019, focusing on platforms and data (Committee A), national missions in key sectors (Committee B), technological mapping and skilling (Committee C), and cybersecurity and ethical concerns (Committee D). The India AI strategy, developed by seven expert groups, reflects a mission-centric approach to advancing AI across sectors. The inaugural India AI report highlights the government's vision to address gaps in computing leveraging India's demographic dividend and IT expertise to expand AI skills, enhance computing capabilities, and promote innovation through public-private partnerships (PPPs). However, the repost has gaps, including the absence of detailed implementations timelines, insufficient data privacy and governance measures, and limited focus on ethical oversight and interdisciplinary collaboration. Additionally, it lacks a clear funding roadmap to scale AI infrastructure and ensure sustainable innovation.

III. (C) National Artificial Intelligence Portal[10]

On May 30, 2020, the Indian Government inaugurated the National Artificial Intelligence Portal, serving as a centralized digital platform for AI-related advancements in the country. The portal functions as a comprehensive resource hub, facilitating the exchange of articles, start-ups, investment funds, companies, educational institutions, and other AI-related entities and resources within India. Additionally, it provides access to documents, case studies, and research reports, and offers learning opportunities and insights into new job roles in the AI domain. Concurrently, the government launched the 'Responsible AI for Youth' national program,

[10] Artificial Intelligence Task Force, 'Available at' Artificial Intelligence Task Force (aitf.org.in) accessed on 19 May 2024.

[9] Ministry of Electronics and Information Technology, Government of India, 'Artificial Intelligence Committees Reports' (2022) https://www.meity.gov.in/artificial-intelligence-committees-reports accessed 18 May 2024.

targeting the empowerment of young students with contemporary tech knowledge, access to requisite AI tools, and pertinent skill sets, thereby fostering digital readiness among the youth for future endeavors.

III. (D) Challenges Employing AI policies

AI offers immense potential across economic, social, medical, security, and environmental domains. It facilitates skill acquisition, democratizes service design, reduces production times, conserves energy, monitors pollution, enhances cybersecurity, boosts national productivity, improves healthcare, and fosters enjoyable interactions. Moreover, AI holds promise for breakthroughs in medicine, science, system management, and innovation, promising to address global challenges and enhance countless lives. To unlock AI's potential, it's crucial to tackle the challenges it presents. These key areas of concern need priority attention from the policymakers to ensure AI's safe and beneficial development, both in the short and long term.

(i) Enabling Beneficial AI Research and Development System: Numerous opportunities exist for beneficial AI research beyond basic effectiveness requirements, yet enabling flourishing research and development programs presents significant challenges. These include fragmented and outdated data sets in India, digital divides between urban and rural areas, and limited access to high-quality standardized datasets. Additionally, finding and hiring individuals with the requisite skills and fostering supportive environments for research are critical factors for success.

(ii) Economic and Social Impact: The integration of AI solutions in industry is poised to disrupt labor markets in India, potentially disadvantaging a significant portion of the workforce. The decreasing cost of intelligent automation is promoting the relocation of industries to developed economies, complicating India's employment generation efforts. While job losses are anticipated, certain roles may experience workflow enhancements. To address these challenges, improved retraining programs and updated

social security measures are imperative. Suggestions such as universal basic income and a "robot tax" have been proposed to mitigate potential inequality increases and alternative resulting social and political tensions.

(iii) Accountability, Transparency, and Explainability: The opacity of machine learning, particularly in terms of transparency and explainability, poses challenges as it often hinders the understanding of algorithmic decisions, especially with proprietary algorithms. Additionally, accountability for undesirable outcomes when decision-making is delegated to AI systems remains ambiguous. Efforts like the EU General Data Protection Regulations (GDPR), including the "right to explanation", aim to address this issue by providing insights into automated decision-making processes.

(iv) Privacy Issues: AI systems have the capacity to make significant interferences and classifications, utilized across diverse sectors like advertising and law enforcement. However, their application raises concerns regarding data privacy, particularly in India where a comprehensive data protection framework is yet to be established. Existing drafts emphasize informed consent, yet this may prove insufficient given widespread low levels of literacy and education. Additionally, AI enhances surveillance capabilities through real-time monitoring and analysis, including features like live facial recognition, prompting questions about privacy, justice, and civil liberties, especially in law enforcement. There's mounting pressure on AI entities to enhance transparency regarding their data and privacy policies.

(v) Misuse of Social Media: AI enhances the impact of information warfare, facilitating the emergence of highly personalized computational propaganda. Recent global incidents underscore the prevalence of fake news and social media bots, tailored to manipulate public opinion and incite social unrest. Advancements in fake video creation exacerbate this challenge, raising concerns about the erosion of democratic principles through the manipulation of information and the public's ability to make informed decisions.

(vi) Intellectual Property Regime and AI Issues: Moving ahead with AI policy development, the government must establish an intellectual property framework that fosters innovation. AI systems learn from human-created works by accessing copies of various resources like books, articles, photographs, films, videos, and audio recordings, all of which are subject to copyright protection. Copyright law provides copyright owners with exclusive rights, including reproduction, and infringement of these rights constitutes copyright infringement.

(vii) Security and Cyber Security: AI profoundly influences national and global security dynamics through various means, including the emergence of new forms of informational warfare, an expanded threat landscape, and contributions to destabilization and weaponization. Additionally, AI increasingly serves as a tool for executing cyber-attacks, amplifying existing threats, and introducing novel ones by enabling attacks on a larger scale with greater complexity and sophistication, potentially even by non-sophisticated actors. Moreover, AI systems exhibit vulnerabilities of diverse kinds, with susceptibility to hacking and manipulation of underlying data. Adversarial machine learning, wherein data inputs are manipulated to confuse AI systems and induce errors, is also employed both offensively and defensively to assess system resilience.

IV. IMPACT OF AI ON VARIOUS SECTORS

Artificial Intelligence (AI) has swiftly become a transformative force in numerous sectors, such as healthcare, finance, education, and beyond. In India, AI is making remarkable strides, with the potential to revolutionize processes, enhance efficiency, and improve decision-making. However, the proliferation of AI also brings forth critical issues related to ethics, accountability, and the necessity for regulations to ensure responsible development and deployment of AI technologies.

IV. (A) Healthcare

Information and Communication Technology (ICT) is crucial for enhancing operational effectiveness and competitive advantage in digitized organizations. In the fourth industrial revolution era, digital technologies like AI, machine learning, smart sensors, robots, big data analytics, and IoT are extensively used for innovation across industries, including healthcare. Developed economies are notably adopting these technologies to improve care quality and operational efficiency. According to a Hewlett-Packard Enterprise study, over 60% of hospitals globally have integrated IoT. Thus, examining the impact of advanced digital devices on service interactions in healthcare is important.[11] The expanded use of AI technologies in health care offers numerous opportunities. AI improves disease treatment by aiding medical staff in accurate diagnoses, as evidenced by IBM Watson and AI-supported MRI algorithms enhancing the treatment of high blood pressure and lung disease. AI also fosters patient engagement, exemplified by various applications that promote healthier habits and patient involvement. Additionally, AI reduces medical errors and enhances service quality, such as in AI-augmented colonoscopy procedures in China and other countries. Operational efficiency and reduced costs are achieved through AI-embedded pill cams, which replace traditional methods, and operational innovations, including AI-enabled chatbots and nursing robots.[12] However, several challenges accompany these opportunities. Accountability for AI-related errors remains complex, involving technical, managerial, and ethical considerations. The AI divide, where patients struggle to trust AI systems, and cybersecurity concerns over data privacy, pose significant hurdles. Furthermore, the integration of AI in healthcare disrupts traditional management structures, leading to a potential loss of managerial control. Job displacement and the need for new training programs also emerge as

[11] D Lee and SN Yoon, 'Application of Artificial Intelligence-Based Technologies in the Healthcare Industry: Opportunities and Challenges' (2021) MDPI https://www.mdpi.com/1660-4601/18/1/271 accessed 26 May 2024.
[12] Uzialko A, 'Artificial Intelligence Will Change Healthcare as We Know It' (Business News Daily, 9 June 2019) https://www.businessnewsdaily.com/15096-artificial-intelligence-in-healthcare.html accessed 26 May 2024.

critical issues. Despite these challenges, AI's potential to revolutionize healthcare through improved efficiency, cost savings, and patient outcomes underscores the importance of addressing these barriers effectively.[13]

IV. (B) Education

In an increasingly competitive landscape, educators must embrace digital technologies, methodologies, and mindsets to thrive in higher education. Digital transformation is imperative for success in this evolving environment, with artificial intelligence (AI) playing a central role. AI presents vast opportunities not only in teaching and learning but also in educational leaders within the educational sector are expected to demonstrate readiness, adaptability, and alignment with emerging technologies to effectively navigate this digital landscape. The emergence of AI has transformed the leadership landscape, requiring leaders in the educational sector to possess both technical expertise, such as proficiency in cloud computing and data analytics, and soft skills for effective team management. AI-driven data analytics offer valuable insights for educational applications, necessitating leaders with a combined skill set of technical proficiency and interpersonal abilities to propel higher education to new heights in the digital era.[14]

The impact of AI on the educational sector spans a wide array of applications, from streamlining administrative duties to enriching curriculum development and tailoring content to individual learners. By harnessing technologies such as virtual reality and web-based platforms, AI plays a pivotal role in overcoming physical barriers and ensuring access to educational resources globally. Furthermore, AI's evolution extends beyond conventional computing systems, embracing intelligent platforms with adaptive features that deliver personalized learning experiences. These advancements highlight AI's capacity to optimize administrative workflows,

[13] Lupton M, 'Some Ethical and Legal Consequences of the Application of Artificial Intelligence in the Field of Medicine' (2018) 18 Trends Med 1–7.
[14] Jeyarani Milton and Arwa Al-Busaidi, 'New Role of Leadership in AI Era: Educational Sector' (2023) edp sciences. Available at: https://www.shsconferences.org/articles/shsconf/abs/2023/05/shsconf_ictl2023_09005/shsconf_ictl2023_09005.html (Accessed: 26 May 2024).

instructional methodologies, and educational outcomes, fostering inclusivity and accessibility. The multifaceted integration of AI across administration, instruction, and learning underscores its transformative impact on the educational landscape.

IV. (C) Legal Profession and Justice System

AI is transforming the legal sector by improving efficiency, enhancing access to justice, and creating new legal technologies. AI tools can automate time-consuming tasks such as document review during discovery and drafting legal motions, significantly reducing the time and cost involved in these processes.[15] The advent of AI systems like GPT-3 and GPT-4 marks a transformative shift in legal practice, enabling complex research and writing tasks previously handled by professionals. The law firms adopting AI can enhance efficiency, reduce costs, and improve litigation outcomes, while those resisting risk of losing clients and talent. To maximize AI's benefits, attorneys must integrate it effectively, developing skills in tool selection, precise querying, and quality assessment of outputs while safeguarding client confidentiality. Law firms should offer training programs to aid this transition, and law schools must update curricula to prepare future lawyers for an AI-driven legal landscape. Despite the extensive integration of AI attorneys will remain indispensable. AI lacks the capabilities to deliver persuasive arguments to a jury, comprehensively assess the myriad strategic decisions made during litigation, and nurture crucial human relationships with clients. Additionally, AI cannot provide the leadership needed to inspire a team of attorneys to achieve their best work. Therefore, it is important to recognize the transformative impact of AI on legal practice. The advances in AI will significantly alter the landscape for legal services providers and clients, but they will not replace the fundamental human aspects of the profession.[16]

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[15] Thomas Weber, 'Artificial Intelligence and the Law' (2023) Stanford Lawyer (SLS), 5 December https://law.stanford.edu/stanford-lawyer/articles/artificial-intelligence-and-the-law/ accessed 26 May 2024.

[16] John Villasenor, 'How AI will revolutionize the practice of law' (2023) Brookings, 20 March https://www.brookings.edu/articles/how-ai-will-revolutionize-the-practice-of-law accessed 26 May 2024.

AI has a transformative impact on the justice delivery system, revolutionizing crime monitoring, prevention, and judicial processes. Advanced technologies like predictive crime forecasting, traffic safety systems, and criminal patterns recognition enable law enforcement to allocate resources effectively, enhancing public safety and proactively preventing crime. In judicial and correctional systems, AI aids case management, sentencing recommendations, and legal data analysis, expediting, it is vital that human roles are not entirely replaced. Judges and legal professionals must act as custodians, ensuring AI's integration upholds justice and fairness. Judges in the future will balance AI's benefits and drawbacks, particularly its speed versus thoroughness, maintaining fairness even under time pressures.[17] However, AI's application in justice raises significant ethical and legal challenges. Issues like transparency, accountability, and bias in algorithms must be rigorously addressed. Systems trained on biased data risk perpetuating discrimination. Comprehensive testing and new regulatory frameworks are essential to mitigate these risks. For instance, the EU classifies justice-related AI as high-risks, emphasizing transparency, oversight, and cybersecurity in its regulations to ensure ethical and unbiased application of AI in the justice system.

V. LEGAL FRAMEWORK ON AI VIZ-A-VIZ GLOBAL LEGISLATION

In the realm of AI regulation, countries worldwide are grappling with the need to establish comprehensive legal frameworks that balance innovation with ethical considerations and societal impacts. A comparative analysis of AI regulations across major jurisdictions reveals diverse approaches and priorities.

[17] Piotti A, 'How should AI be used in the justice system?' (2023) ETH Zurich https://ethz.ch/en/news-and-events/eth-news/news/2023/05/blog-how-should-ai-be-used-in-the-justice-system.html accessed 26 May 2024.

V. (A) United States

The United States has established a federal AI governance policy through initiatives from the White House, Congress, and various federal agencies, forming a critical part of the nation's AI strategy. This foundation, alongside numerous city and state laws, shapes the future legal and policy landscape for AI technology. Congress has taken a gradual approach to AI legislation, initially focusing on autonomous vehicles and national security. The 115th Congress tasked the Department of Defence with AI initiatives and defined AI in the 2019 National Defence Authorization Act. A major development was the National AI Initiative Act of 2020, which boosted AI R&D and coordination between defense and civilian sectors and created the National Artificial Intelligence Initiative Office in the White House OSTP. [18]

V. (B) United Kingdom

The UK government is developing AI legislation, following the Prime Minister's cautious stance. This may include restrictions on large language models, like OpenAI's ChatGPT, requiring companies to share algorithms and conduct safety testing. Regulations bodies, including the UK Competition and Market Authority, are concerned about the potential harms such as bias and misuse of general-purpose models. The Department for Science, innovation, and Technology is focusing on large language models rather than individual applications. To date, the UK has favored voluntary agreements over strict regulations to avoid hindering innovation, but rising concerns are driving the push for formal regulation. In contrast, the EU has implemented stringent AI regulations, attracting criticism and prompting other nations to lure European AI companies. UK regulators are clarifying how current laws apply to AI, with Ofcom examining generative AI's fit within the Online Safety Act to protect internet users.[19]

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[18] M Fazlioglu, 'US Federal AI Governance: Laws, Policies and Strategies' (IAPP, 2023) https://iapp.org/resources/article/us-federal-ai-governance/ accessed 24 June 2024.

[19] Department for Digital, Culture, Media & Sport and D Collins, 'UK Sets Out Proposals for New AI Rulebook to Unleash Innovation and Boost Public Trust in the Technology' (GOV.UK, 2022) https://www.gov.uk/government/news/uk-sets-out-proposals-for-new-ai-rulebook-to-unleash-innovation-and-boost-public-trust-in-the-technology accessed June 2024.

V. (C) Singapore

While Singapore lacks specific AI governance regulations and a dedicated AI agency, it has implemented sectoral and voluntary frameworks, alongside binding regulations in areas like data protection and online strategy. Singapore is adopting a sectoral approach to AI governance, with regulatory agencies favoring non-binding guidelines and recommendations. The Monetary Authority of Singapore (MAS) pioneered AI governance in financial services with the FEAT principles and Veritas framework, part of the National AI Strategy. The info-communications Media Development Authority (IMDA) and Personal Data Protection Commission (PDCC) have actively issued guidelines, including the Model AI Governance Framework and AI Verify toolkit. In healthcare, the Ministry of Health released AI guidelines in 2021 to enhance patient safety and trust. This multi-faced strategy underscores Singapore's commitment to ethical AI adoption across various sectors.[20]

VI. WAY FORWARD

The development of a strong AI regulatory framework in India requires striking a balance between encouraging innovation and upholding ethical standards. A specific AI regulatory agency, such as an AI Council, should be formed to supervise AI development and regulation across fields. To avoid ethical violations, ethical norms such as Justice, Accountability, Transparency, and sufficient human oversight must be followed. Improving data protection legislation is essential ensuring that data used for AI is acquired and processed ethically, including privacy obligations such as anonymization and reduction. Encouraging AI literacy through education and training programs will create a competent workforce capable of managing AI technologies responsibly, while public awareness campaigns will keep citizens informed and involved. Grants, tax breaks, and public-private partnerships should be encouraged to spur AI research and

[20] DG Chng and J Jones, 'Global AI Governance Law and Policy: Singapore' (IAPP, 2024) https://iapp.org/resources/article/global-ai-governance-singapore/ accessed 25 June 2024.

development. International cooperation is critical, with India taking part in global forums to establish and adopt AI standards, guaranteeing compliance with global best practices. To address AI-related issues, clear legal avenues for redress and specialized dispute resolution systems should be established. Continuous monitoring and adaptive regulation methods will ensure that AI legislation is continually evaluated and revised to keep up with technical breakthroughs and emerging dangers. Implementing these measures will help India establish a comprehensive artificial intelligence regulatory framework that fosters innovation while safeguarding ethical standards and public trust.

When formulating legislation concerning AI in India, it is imperative to integrate principles that derive from the Constitution and all pertinent laws. These principles are essential for ensuring AI systems are designed to uphold fundamental rights and values. The recommended principles for responsible AI management encompass various aspects that must be addressed comprehensively.

a) Principle of Safety and Reliability: AI implementation must be reliable and have sufficient protection to protect all stakeholders from damage. Mechanisms for grievance resolution, care, and compensation should be easily available to handle unintended outcomes throughout the AI system's longevity.

b) Principle of Equality: AI systems must treat all individuals equally under the same decision-making conditions.

c) Principle of Inclusivity and Non-discrimination: The AI system should not discriminate against competent people based on their religion, ethnicity, caste, gender, ancestry, place of birth, or domicile. Measures should be taken to avoid exacerbating historical and social disparities in areas such as education, employment, and access to public services. Access to grievance redressal methods should be equal and available to everyone, regardless of background.

d) Principle of Privacy and Security: AI systems must protect the privacy and security of data provided by individuals or entities for training purposes. Access should be restricted to authorized persons only, with tight security measures in operation.

e) Principle of Protection and Reinforcement of Positive Human Values: AI should support positive human values and help to social peace among societies while avoiding activities that might jeopardize these relationships.

The integration of these principles into AI legislation in India requires careful evaluation of legal frameworks that are compliant with both current laws and constitutional restrictions. For AI systems to function morally, openly, and responsibly, the law should clearly define rules and guidelines. To properly protect these objectives, it should prescribe methods for supervision, auditing, and enforcement. In addition, it is imperative to include provisions for easily accessible grievance redressal systems to protect the rights of all persons affected by AI environment that upholds basic rights, encourages innovation, and benefits society by enshrining these ideals in legislation.

VII. CONCLUSION

The adoption of Artificial Intelligence (AI) in law enforcement in India presents opportunities and challenges across various sectors. The inclusion of fairness, transparency, and accountability in AI policy is crucial. The impact of AI in areas such as healthcare, education, and public safety underscores the need for regulatory frameworks that protect privacy while encouraging innovation. As India advances in AI technology, alignment with global standards and learning from international legal frameworks will be important. Going forward, it is imperative that Indian laws carefully evolve to include good governance recommendations, ethical considerations, and comprehensive safeguards against AI-related crimes. India can harness the potential of AI responsibly and sustainably by developing an enabling

environment for the development of artificial intelligence while respecting fundamental rights.

The introduction of Artificial Intelligence in law enforcement in India marks a significant step towards improving efficiency and effectiveness in the sector. The evolution of AI policies in India, its multifaced impacts on various industries, and the comparative analysis of global legislative frameworks. As AI continues to shape the landscape of technology and governance, it is imperative for Indian lawmakers to prioritize ethical considerations, transparency, and accountability in their actions. To addressing the current status of AI-related crimes and government strategies underscores the need for adaptive legal frameworks that balance innovation with societal well-being. Moving forward, recommendations emphasize the importance of proactive legislation that fosters responsible AI deployment while safeguarding fundamental rights and promoting inclusive growth. By embracing these principles, India can navigate the complexities of AI integration with resilience and foresight, ensuring a future where technology serves the greater good.

FROM SOURCE TO SEA: LEGAL PERSPECTIVES ON HARMONIZING WATER MANAGEMENT AND OCEAN PROTECTION

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ABSTRACT

The "source-to-sea" concept illustrates the intricate connectivity between freshwater and marine ecosystems, emphasizing the cascading impacts of upstream activities on downstream coastal and oceanic environments. This study explores the role of legal frameworks in harmonizing water management and ocean protection, addressing significant gaps in current governance structures. It critically examines international treaties, such as the UNECE Water Convention and UNCLOS, and national legislations like India's Water Act and Environment Protection Act, highlighting their limitations in fostering an integrated approach. Through case studies on transboundary rivers and coastal ecosystems, this paper advocates for a unified legal framework to address the fragmented regulation of water systems. By adopting integrated water resource management (IWRM) principles, updating legal standards, and fostering judicial oversight that acknowledges ecological interconnectedness, the study proposes actionable pathways for sustainable governance of aquatic resources.

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I. INTRODUCTION

The concept of "source to sea" underscores the intrinsic connection between freshwater ecosystems such as rivers, lakes, and groundwater and marine environments, highlighting how upstream activities impact downstream coastal and oceanic areas. Freshwater flows ultimately drain into the ocean, carrying with them pollutants, sediments, and nutrients that affect marine biodiversity and coastal health. Effective water management, therefore, requires a holistic approach that integrates the protection and sustainable use of both freshwater and marine resources. This article will explore how legal frameworks play a critical role in ensuring that water management, from rivers to seas, is harmonized, addressing not only the governance of rivers and lakes but also the protection of coastal and ocean ecosystems. Current legal frameworks, while robust in their respective domains, often fail to consider the full "source-to-sea" continuum, necessitating a re-evaluation of existing laws to create a more integrated governance structure.

The water management begins with strong legal foundations that govern the use, conservation, and protection of freshwater systems. The key international agreements, such as the UNECE Water Convention[1], focus on the protection of transboundary watercourses and lakes, setting legal obligations for countries to manage shared water resources collaboratively. Similarly, the Ramsar Convention on Wetlands[2] emphasizes the conservation of wetlands as critical to sustaining water ecosystems. At the national level, countries implement various water laws that regulate water usage, pollution control, and conservation efforts. These laws are designed to maintain the

[1] Convention on the Protection and Use of Transboundary Watercourses and International Lakes, opened for signature Mar. 17, 1992, 31 I.L.M. 1312.
[2] Convention on Wetlands of International Importance Especially as Waterfowl Habitat, opened for signature Feb. 2, 1971, 996 U.N.T.S. 245.

balance between developmental needs and environmental protection. However, while these legal frameworks effectively govern the inland waters, there is often a disconnect between how these resources are managed upstream and how their impacts manifest downstream in coastal and oceanic environments. A deeper integration between freshwater and ocean management laws is required to protect the entire water cycle, from source to sea.

Ocean governance has developed through legal instruments like the United Nations Convention on the Law of the Sea (UNCLOS)[3], which sets the framework for the protection and sustainable use of marine resources. UNCLOS, along with regional conventions, outlines the legal responsibilities of states regarding the pollution of marine environments, overfishing, and protection of biodiversity. However, the impact of upstream activities, such as river pollution and dam construction, on marine ecosystems is often not fully addressed within these ocean governance frameworks. For example, the excessive use of fertilizers in agriculture can lead to nutrient runoff that enters rivers and ultimately results in marine phenomena like dead zones, where oxygen depletion severely harms marine life. Moreover, the management of freshwater inflows into estuaries and deltas is critical for maintaining coastal ecosystem health, as changes in freshwater flow can lead to habitat destruction and increased salinity. These issues highlight the importance of considering ocean protection within the broader scope of water management, ensuring that policies governing freshwater resources also account for their downstream effects on marine environments.

Despite the growing recognition of the source-to-sea connection, significant legal and policy gaps remain in integrating freshwater and marine conservation efforts. Current legal regimes tend to operate in silos, with separate frameworks governing inland water bodies and coastal/marine ecosystems. This lack of coordination leads to fragmented management practices that fail to address the cumulative impacts of human activities

[3] United Nations Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397.

across the entire water system. For instance, while freshwater laws may regulate industrial pollution within river basins, marine laws focus on ocean pollution from maritime activities, leaving a legal void in addressing how riverine pollution affects ocean health. Additionally, there are gaps in policies related to climate change adaptation, where rising sea levels and changing precipitation patterns require coordinated legal responses across both freshwater and marine systems. Bridging these gaps demands legal reforms that promote integrated water resource management (IWRM)[4], where the entire hydrological cycle from freshwater sources to marine ecosystems is considered within a unified framework.

To achieve sustainable water management, there is an urgent need to harmonize legal frameworks that govern both freshwater and marine environments. Integrated water management policies must be designed to take into account the interconnectedness of rivers, lakes, wetlands, and oceans, ensuring that the upstream activities do not negatively impact downstream ecosystems. Legal mechanisms, such as cross-sectoral water governance frameworks and transboundary cooperation agreements, can provide a pathway for aligning the objectives of inland water resource management with marine conservation efforts. This article advocates for a shift from fragmented legal systems to a more cohesive approach that fosters collaboration between national, regional, and international stakeholders. By addressing the legal and policy gaps, we can create a sustainable and resilient water governance model that protects our water resources from source to sea.

II. THE LEGAL FOUNDATIONS OF WATER RESOURCE MANAGEMENT

Water resource management is governed by a complex web of international treaties and national policies, each aimed at the protection and sustainable use of freshwater resources. Two key international frameworks that form the

[4] Integrated Water Resource Management, United Nations, *Water for Life Decade*, available at https://www.un.org/waterforlifedecade/iwrm.shtml (last visited Oct. 13, 2024).

backbone of this governance structure are the UNECE Water Convention[5] and the Ramsar Convention[6]. While these treaties establish critical legal obligations and cooperation mechanisms, their effectiveness is often limited by enforcement gaps, lack of clarity in legal provisions, and incomplete integration into national legal frameworks. This section examines these conventions in detail, identifying areas where they are stringent and pointing out the loopholes that hinder their full potential.

II. (A) Examination of key international treaties and conventions

The UNECE Water Convention, formally known as the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (1992), plays a pivotal role in fostering cooperation between countries that share water resources. It obligates parties to prevent, control, and reduce transboundary impacts on watercourses through integrated water resource management (IWRM). The convention's Article 2[7] requires parties to take all appropriate measures to prevent, control, and reduce transboundary impacts from water pollution and other harmful activities. Furthermore, Article 9[8] mandates the conclusion of bilateral or multilateral agreements between riparian states, ensuring joint bodies are established for managing shared waters. One of the convention's strengths lies in its preventive principle, emphasizing cooperation in planning and decision-making, which prevents water conflicts before they escalate. This is especially stringent in the context of early warning systems and environmental impact assessments (EIAs)[9] required for activities that might affect transboundary waters.

However, the UNECE Water Convention is not without its loopholes. While it promotes cooperation, it lacks enforceable mechanisms to compel

[5] Supra Note 1
[6] Supra Note 2
[7] Convention on the Protection and Use of Transboundary Watercourses and International Lakes, *supra* note 1, art. 2.
[8] Id. art. 9.
[9] Ministry of Environment, Forest and Climate Change, Environmental Impact Assessment (EIA), available at https://moef.gov.in/environmental-impact-assessment-eia (last visited Dec. 13, 2024).

compliance. The convention provides no sanctions for states that fail to adhere to their obligations. Furthermore, the convention's broad language in Article 2—which refers to "appropriate measures" without specifying what those measures should entail—creates interpretative ambiguity, allowing states to fulfill obligations at varying levels of commitment. There is also no universal dispute resolution mechanism within the convention, meaning that enforcement is largely reliant on good faith negotiation, which can be ineffective when water disputes arise.

II. (B) Ramsar Convention: Wetland Protection and Its Shortcomings

The Ramsar Convention on Wetlands, adopted in 1971, is the leading global framework for the conservation and wise use of wetlands, which are crucial for maintaining freshwater ecosystems. The convention's Article 3[10] commits parties to formulate and implement plans for the conservation and wise use of wetlands, while Article 2[11] designates specific wetlands of international importance (Ramsar Sites) that must be protected.

One of the convention's strongest features is its integrated approach to wetland conservation, connecting wetland health with water management and biodiversity protection. Article 4[12] requires contracting parties to promote the conservation of wetlands and waterfowl by establishing nature reserves on wetlands, making this provision relatively stringent. The Ramsar Convention has been successful in mobilizing international attention to wetland degradation, resulting in national-level commitments to wetland protection and restoration.

Despite its successes, the Ramsar Convention has some critical loopholes. While it encourages the designation of Ramsar sites[13], there is no legal

[10] Ramsar Convention, *supra* note 2, art. 3.
[11] Id. art. 2.
[12] Id. art. 4.
[13] An Introduction to the Ramsar Convention on Wetlands, 7th ed., Ramsar Convention Secretariat, Gland, Switzerland (formerly *The Ramsar Convention Manual*).

obligation[14] for parties to prioritize conservation in non-designated wetlands, even if they serve important ecological functions. Additionally, the convention lacks a rigid enforcement mechanism. Although the Ramsar Secretariat can monitor and report on the ecological status of designated wetlands, it has no authority to impose sanctions or corrective measures for non-compliance. Furthermore, the Ramsar Convention does not explicitly address pollution control or water use regulation, which are key components of water resource management. As a result, while it emphasizes habitat protection, it does not sufficiently integrate broader water management concerns such as water quality standards or the regulation of industrial water usage that may harm wetlands.

II. (C) National water laws and policies focusing on the protection of freshwater resources

India faces significant challenges in water resource management due to its vast geography, diverse ecosystems, and growing population. Its legal framework for water management has evolved over time, focusing primarily on pollution control, equitable distribution, and conservation of freshwater resources. This section provides a detailed analysis of India's national water laws, particularly the Water (Prevention and Control of Pollution) Act, 1974, the Environment (Protection) Act, 1986, and the National Water Policy, highlighting both the stringent provisions and the loopholes that undermine effective water management.

II. (D) Water (Prevention and Control of Pollution) Act, 1974[15]

The Water (Prevention and Control of Pollution) Act, 1974 is one of India's primary legislative instruments for controlling water pollution. Its primary goal is to prevent and control the discharge of pollutants into water bodies and maintain the purity of water sources. The Act establishes the Central

[14] Secretariat of the Ramsar Convention on Wetlands, *The Ramsar Convention on Wetlands: Its Limitations and Challenges*, Ramsar Secretariat, available at https://www.ramsar.org (last visited Dec. 12, 2024).
[15] Water (Prevention and Control of Pollution) Act, No. 6 of 1974 (India).

Pollution Control Board (CPCB) and State Pollution Control Boards (SPCBs), which are responsible for enforcing the law and ensuring compliance with pollution standards.

One of the Act's key provisions is Section 24[16], which explicitly prohibits the discharge of any pollutant into water bodies beyond the permissible limits set by the respective pollution control boards. This provision is stringent in theory, as it provides a clear legal mandate to prevent industries from polluting water bodies without prior approval. Additionally, Section 25[17] mandates that industries and local authorities must obtain consent from the SPCBs before setting up any operation that may result in water pollution. The SPCBs are empowered to refuse consent if the proposed activity is deemed harmful to water resources.

However, in practice, the enforcement of these provisions remains weak. Section 33[18], which grants SPCBs the authority to take legal action against violators, is often underutilized due to administrative inefficiencies and corruption. Many industries continue to operate without proper pollution control measures, and while fines and penalties are prescribed, they are not stringent enough to act as a deterrent. Moreover, there is a significant gap in monitoring and enforcement due to the lack of infrastructure and manpower within pollution control boards. This results in delayed inspections, non-compliance, and underreporting of pollution incidents. For instance, industrial clusters in critically polluted areas, such as those near the Ganga and Yamuna rivers, have seen little improvement despite the stringent legal framework.

Additionally, the Act does not clearly define the penalty structure for repeat offenders, and the fines prescribed under Section 41 are relatively low, considering the scale of environmental damage that can be caused by water pollution. This creates a loophole that allows industries to evade

[16] Id. s. 24.
[17] Id. s. 25.
[18] Id. s. 33.

accountability by paying nominal fines rather than investing in pollution control technologies.

II. (E) The Environment (Protection) Act, 1986[19]: Supplementing Water Management

The Environment (Protection) Act, 1986 provides a broader framework for environmental protection in India, including water management. This Act was enacted in response to the Bhopal Gas Tragedy[20] and gives the central government the authority to take action against environmental degradation, including water pollution. Under Section 3[21], the central government is empowered to set standards for the quality of the environment and regulate industrial activity to prevent water pollution.

The Environment (Protection) Act is stringent in that it grants broad powers to authorities to take preventive action. For example, under Section 5[22], the government can issue directions for the closure of industries or regulate the operation of any process that is likely to pollute water bodies. This has been used effectively in some cases to curb industrial pollution in critically polluted areas.

Despite these strengths, the Environment Act suffers from similar enforcement issues as the Water Act. There is insufficient coordination between central and state agencies, leading to fragmented implementation. Moreover, while the Act provides for public interest litigation (PIL) to be filed in cases of environmental damage, the lengthy judicial process and bureaucratic delays often reduce its effectiveness. Furthermore, while the Act grants the government wide-ranging powers, Section 7[23], which prescribes penalties for non-compliance, often results in minor punishments, which are insufficient to deter large-scale polluters.

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[19] Environment (Protection) Act, No. 29 of 1986.
[20] "Bhopal Gas Tragedy Relief and Rehabilitation Department, *Profile of BGTRR&DMP*, https://bgtrrdmp.mp.gov.in/profile.html (last visited Dec. 12, 2024)"
[21] Id. s. 3.
[22] Id. s. 5.
[23] Id. s. 7.

II. (F) National Water Policy and the Equitable Use of Water Resources

The National Water Policy (NWP) is a key document that lays out India's overarching principles for water management, with the latest version adopted in 2012[24]. The policy emphasizes the principles of integrated water resource management (IWRM)[25], equitable distribution, and water conservation. It recognizes water as a common resource[26], placing the state in the role of a custodian rather than an owner of water resources. The policy prioritizes drinking water and sanitation needs over industrial or agricultural use, reflecting the growing need for water security in a country facing water scarcity. One of the strengths of the NWP is its recognition of the need to conserve groundwater, which has historically been overexploited in India. The policy calls for the establishment of aquifer mapping[27] and the monitoring of groundwater extraction[28] to prevent depletion. It also encourages rainwater harvesting[29] and reuse of treated wastewater[30], promoting sustainable water management practices.

However, the policy is not legally binding and remains a guiding framework rather than a set of enforceable laws. This represents a significant loophole, as the policy's progressive ideas for sustainable water management do not translate into action without legal mandates. For instance, while the policy advocates for the polluter-pays principle[31], there is no accompanying

[24] "National Water Policy 2012 [India]: Report Summary, IRC, available at https://www.ircwash.org/resources/national-water-policy-2012-india-report-summary (last visited Dec. 12, 2024)."
[25] "Global Water Partnership, *What is IWRM?*, https://www.gwp.org/en/About/more/what-is-iwrm/ (last visited Dec. 12, 2024)."
[26] United Nations, *Integrated Water Resource Management (IWRM)*, https://www.un.org/waterforlifedecade/iwrm (last visited Dec. 13, 2024).
[27] "Central Ground Water Board, *Aquifer Systems of India - Atlas*, (Central Ground Water Board, 2012)", available at www.indiawaterportal.org&#8203
[28] Central Ground Water Board, *Annual Report on Groundwater Resource Development in India* (2019)
[29] Indian Water Portal, *Rainwater Harvesting*, https://www.indiawaterportal.org (last visited Dec. 12, 2024).
[30] "Jean-Martin Brault, Konrad Buchauer & Martin Gambrill, *Wastewater Treatment and Reuse: A Guide to Help Small Towns Select Appropriate Options*, WORLD BANK (2022)"
[31] "Grantham Research Institute on Climate Change and the Environment", *What is the Polluter Pays Principle?*, LONDON SCH. OF ECON. & POL. SCI. (Oct. 17, 2023),

legislation that compels industries or individuals to bear the full cost of environmental restoration after water pollution. Furthermore, the policy's approach to inter-state river disputes[32] remains limited, as it does not provide mechanisms for effectively resolving disputes that arise from competing water demands across state boundaries.

II. (G) Loopholes and Areas for Stringency in India's Water Laws

There are several areas where India's water laws need to be made more stringent. First, the enforcement mechanisms under both the Water Act[33] and Environment Act[34] need to be strengthened. This could include increasing the penalties for non-compliance, particularly for industries that repeatedly violate pollution standards. The introduction of stricter liability provisions under the Water Act—such as imposing criminal liability on executives of polluting industries—would deter water pollution more effectively than the current system of fines and penalties.

Another loophole that needs addressing is the lack of community participation in water management. While the National Water Policy advocates for community involvement, there are no legal provisions that empower local communities to actively participate in decision-making processes related to water resource management. The strengthening of participatory governance could be done through legal amendments that give local water users and stakeholders a formal role in monitoring water bodies and reporting violations.

Lastly, there is an urgent need for more coordinated water governance. Water is a state subject under the Indian Constitution, leading to inconsistent water management practices across different states. National legislation should be amended to ensure that central and state agencies work more closely together, particularly in managing inter-state rivers like the

[32] Observer Research Foundation, *Inter-State Water Disputes in India*, https://www.orfonline.org/ (last visited Dec. 12, 2024).
[33] Supra Note 15.
[34] Supra Note 19.

Ganga and Brahmaputra. The introduction of a centralized regulatory authority for water could help bridge this gap and create a uniform system for monitoring and managing water resources across India.

India's water management laws, though relatively stringent on paper, suffer from serious enforcement and regulatory challenges. While the Water Act of 1974[35] and the Environment (Protection) Act of 1986[36] provide strong legal frameworks for controlling pollution and protecting freshwater resources, they are undermined by poor enforcement and low penalties for non-compliance. The National Water Policy[37] offers a progressive vision for water management but lacks the legal backing needed to enforce its principles effectively. To achieve better outcomes, India's water laws must be reformed to include stricter penalties, enhanced community participation, and better coordination between central and state agencies, ensuring a more integrated approach to water resource management.

III. OCEAN GOVERNANCE AND ITS ROLE IN WATER MANAGEMENT

Water management extends beyond freshwater ecosystems, encompassing the interconnectedness of rivers, coasts, and oceans. Ocean governance frameworks, such as the United Nations Convention on the Law of the Sea (UNCLOS)[38], play a crucial role in protecting marine ecosystems while addressing the impacts of upstream water management on coastal and ocean environments. However, managing transboundary water flows presents challenges, particularly where rivers flow into the sea, influencing marine biodiversity and coastal health. This section provides a detailed analysis of the legal frameworks, challenges, and case studies that highlight the complex relationship between freshwater and marine governance.

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[35] Supra Note 15.
[36] Supra Note 19.
[37] "Ministry of Housing and Urban Affairs, Government of India, *Atal Mission for Rejuvenation & Urban Transformation 2.0" (AMRUT 2.0)*, https://amrut.gov.in/ (last visited Dec. 13, 2024).
[38] United-Nations, *United-Nations-Convention on the Law-of-the-Sea (UNCLOS)*, https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf

The United Nations Convention on the Law of the Sea (UNCLOS), adopted in 1982, is one of the most comprehensive legal frameworks governing the use of the world's oceans. UNCLOS establishes the legal basis for maritime zones, including territorial seas[39], exclusive economic zones (EEZs)[40], and the high seas[41], while addressing various aspects of marine protection, resource management, and conservation. Its provisions are particularly important in regulating human activities that affect the marine environment, such as fishing, shipping, and pollution control.

UNCLOS recognizes the critical role that oceans play in global ecosystems and, under Part XII, places significant emphasis on the protection and preservation of the marine environment. Article 192[42] of UNCLOS obligates states to protect and preserve the marine environment, while Article 194[43] calls for states to take necessary measures to prevent, reduce, and control pollution from land-based sources. This is crucial for water management because land-based activities, such as industrial discharge and agricultural runoff, significantly impact marine ecosystems through the flow of pollutants into rivers that eventually reach coastal and ocean waters.

UNCLOS also includes provisions related to the management of marine resources, particularly in Articles 61 and 62[44], which regulate the conservation of living marine resources within a state's EEZ. These provisions aim to balance the need for resource exploitation with the sustainable use of marine ecosystems, ensuring that the extraction of resources, such as fish stocks, does not undermine the ecological balance of oceans.

However, while UNCLOS provides a strong legal framework for marine protection, its effectiveness is often limited by weak enforcement

[39] UNCLOS, *supra* note 3, pt. II.
[40] Id. pt. V.
[41] Id. pt. VII., High Seas.
[42] Id. art. 192.
[43] Id. art. 194.
[44] Id. arts. 61–62.

mechanisms and the challenges of regulating transboundary water flows. For example, land-based pollution control under Article 207[45] lacks strict enforcement measures, leaving it up to individual states to implement domestic laws for pollution control. This has led to inconsistent application and weak compliance, particularly in regions where water pollution from upstream activities significantly impacts coastal and marine environments.

IV. CHALLENGES OF MANAGING TRANSBOUNDARY WATER FLOWS AFFECTING RIVERS AND OCEANS

Transboundary water flows present one of the most complex challenges in water and ocean governance, as they require cooperation between multiple nations to manage water resources that cross national borders. Rivers that flow through multiple countries and eventually drain into the sea carry pollutants, nutrients, and sediments from upstream activities, affecting both freshwater and marine ecosystems. The management of these shared resources is often complicated by conflicting national interests, legal frameworks, and governance structures.

A key challenge is that land-based activities, such as agriculture, industrial waste disposal, and urban runoff, introduce pollutants into rivers, which are then transported downstream into coastal areas and oceans. This process is known as non-point source pollution[46], and it is difficult to regulate because it originates from diffuse sources over a large area. For instance, the excessive use of fertilizers in agriculture leads to nutrient runoff into rivers, causing eutrophication in coastal waters[47]. This phenomenon, often referred to as dead zones, results in oxygen depletion, severely impacting marine biodiversity and fisheries.

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[45] Id. art. 207.

[46] "Bashir, I., Lone, F.A., Bhat, R.A., Mir, S.A., Dar, Z.A., Dar, S.A. (2020). Concerns and Threats of Contamination on Aquatic Ecosystems. In: Hakeem, K., Bhat, R., Qadri, H. (eds) Bioremediation and Biotechnology. Springer, Cham. https://doi.org/10.1007/978-3-030-35691-0_1"

[47] "Solomon Oluwaseun Akinnawo, *Eutrophication: Causes, Consequences, Physical, Chemical and Biological Techniques for Mitigation Strategies*", Dep't of Chemical Scis., Olusegun Agagu Univ. of Sci. & Tech., P.M.B. 353, Okitipupa, Nigeria.

Managing such transboundary water flows requires a coordinated approach that integrates both river basin and marine governance. However, international agreements focused on freshwater resources, such as the UNECE Water Convention, often operate separately from marine conventions like UNCLOS. This separation hinders the ability to address the full scope of transboundary water management, as actions taken upstream in river basins may not adequately consider their downstream effects on coastal and marine ecosystems. The challenge lies in bridging this governance gap by developing legal and institutional mechanisms that promote integrated water management across both freshwater and marine domains.

One prominent example is the Ganges-Brahmaputra-Meghna (GBM) River Basin, shared by India, Bangladesh, Bhutan, and Nepal. The rivers in this basin carry large quantities of sediment and pollutants downstream, affecting the Bay of Bengal's marine ecosystems. Despite the existence of bilateral treaties between these countries, such as the Ganges Water Sharing Treaty (1996)[48] between India and Bangladesh, these agreements largely focus on freshwater allocation and fail to address the broader impacts on coastal ecosystems. Without a comprehensive legal framework that considers both upstream and downstream impacts, transboundary water flows will continue to pose challenges to sustainable water and marine management.

IV. (A) The Mekong River Basin[49]

The Mekong River flows through six countries likewise; China, Myanmar, Laos, Thailand, Cambodia, and Vietnam—before emptying into the South China Sea. Upstream dam construction, particularly in China and Laos, has significantly altered the river's flow regime. The reduction in sediment transport downstream has led to increased coastal erosion in the Mekong Delta, threatening agriculture, fisheries, and the livelihoods of millions in Vietnam.

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[48] Treaty on Sharing of the Ganges Waters at Farakka, India-Bangladesh, Dec. 12, 1996.

[49] Indian Council of World Affairs, *The Mekong River Basin*, https://www.icwa.in/show_content.php?lang=1&level=3&ls_id=6014&lid=4142 (last visited Dec. 13, 2024).

Changes in water flow have also impacted the Tonle Sap Lake in Cambodia, Southeast Asia's largest freshwater lake, disrupting its flood pulse system essential for fish spawning. This has led to declines in fish populations, affecting food security and economic stability in the region. The absence of a comprehensive, legally binding agreement among all Mekong countries hampers effective transboundary water management and highlights the need for integrated legal frameworks.

IV. (B) The Nile River Basin[50]

The Nile River, shared by eleven countries, is vital for the water supply, agriculture, and energy production in the region. The construction of the Grand Ethiopian Renaissance Dam (GERD)[51] on the Blue Nile has raised concerns in downstream countries, particularly Egypt and Sudan. Egypt relies heavily on the Nile for freshwater, and any reduction in flow could have severe implications for its agricultural sector and the Nile Delta's health.

The Nile Delta faces threats from reduced sediment deposition due to upstream water withdrawals, leading to coastal erosion and increased vulnerability to sea-level rise. Saltwater intrusion from the Mediterranean Sea exacerbates these issues, affecting soil fertility and freshwater availability. Despite ongoing negotiations, the lack of a binding legal agreement among Nile Basin countries complicates efforts to manage the river's waters sustainably.

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[50] United Nations Environment Programme, *Adaptation to Climate Change Induced Stress in the Nile Basin"*, https://www.unep.org/news-and-stories/story/adaptation-climate-change-induced-stress-nile-

[51] "International Journal on Hydropower and Dams, *Grand Ethiopian Renaissance Dam (GERD)"*, https://www.hydropower.org/sediment-management-case-studies/ethiopia-grand-ethiopian-renaissance-dam-gerd (last visited Dec. 13, 2024).

[52] Mississippi River Delta Restoration Campaign, *The Mississippi River and the Gulf of Mexico*, https://mississippiriverdelta.org/learning/explaining-the-gulf-of-mexico-dead-zone/#:~:text=Every%20summer%2C%20a%20low%2Doxygen,into%20the%20Gulf%20of%20Mexico (last visited Dec. 13, 2024).

IV. (C) The Mississippi River and the Gulf of Mexico Dead Zone[52]

In the United States, the Mississippi River collects runoff from 31 states, draining into the Gulf of Mexico. Agricultural activities in the Midwest contribute significant amounts of nitrogen and phosphorus to the river system. This nutrient pollution has created a hypoxic "dead zone" in the Gulf, an area where low oxygen levels make it difficult for marine life to survive.

The dead zone affects commercial and recreational fisheries, leading to economic losses and ecosystem degradation. Despite environmental regulations like the Clean Water Act[53], addressing nonpoint source pollution from agriculture remains a significant challenge. This case illustrates how upstream land use and water management practices directly impact coastal and ocean health, emphasizing the need for integrated policies that address the entire watershed.

IV. (D) The Ganges-Brahmaputra-Meghna Delta

The Ganges-Brahmaputra-Meghna river system supports a large population across India, Nepal, Bhutan, Bangladesh, and China. Upstream water withdrawals for irrigation, hydropower development, and pollution from industrial and domestic sources have reduced water quality and quantity downstream. In Bangladesh, reduced freshwater flow has led to increased salinity in the delta region, affecting agriculture, aquaculture, and the Sundarbans mangrove forest, a UNESCO World Heritage Site.

The delta region is also highly vulnerable to sea-level rise and extreme weather events intensified by climate change. The lack of effective transboundary water management agreements exacerbates these challenges, demonstrating the critical need for cooperative legal frameworks that address the interconnectedness of river basins and coastal ecosystems.

[53] *Clean Water Act*, 33 U.S.C. 1251–1387 (2018).

V. INTEGRATING FRESHWATER AND MARINE CONSERVATION: LEGAL AND POLICY GAPS

One of the most significant challenges in environmental governance is the fragmented legal approach to freshwater and marine ecosystems, which are often managed as distinct entities despite their interconnectivity. Freshwater systems, including rivers, lakes, and aquifers, directly impact marine environments, particularly in coastal areas where rivers discharge into oceans. However, current legal frameworks tend to treat these as separate issues, leading to gaps in regulation, enforcement, and sustainability efforts.

In India, for example, national water laws such as the Water (Prevention and Control of Pollution) Act, 1974[54] focus on freshwater pollution and industrial discharge, but they do not adequately account for the downstream impacts on marine environments. Similarly, while the Environment (Protection) Act, 1986[55] provides a broader mandate for environmental protection, it lacks specific provisions that link upstream activities with coastal and ocean health. This separation results in a legal gap where harmful activities in freshwater ecosystems, such as unregulated waste discharge or excessive groundwater extraction, contribute to marine degradation without triggering legal repercussions.

Internationally, the United Nations Convention on the Law of the Sea (UNCLOS)[56] governs marine environments but is largely silent on the influence of upstream freshwater management on coastal and marine ecosystems. Article 207 of UNCLOS addresses pollution from land-based sources but does not provide detailed guidance on the coordination between freshwater and marine legal regimes. The Ramsar Convention on wetlands, while addressing inland water bodies, also lacks integration with marine

[54] Supra Note 15.
[55] Supra Note 19.
[56] Supra Note 3.

conservation policies, creating gaps in the regulation of coastal wetlands, estuaries, and deltas, which are critical transition zones between rivers and oceans.

Moreover, many national water policies and laws focus on sectoral priorities such as irrigation, drinking water, and industrial use—without considering the broader ecological impact on marine biodiversity. This sectoral approach exacerbates the fragmentation of environmental governance and leads to ineffective management of aquatic ecosystems as a whole. For instance, agricultural runoff containing fertilizers and pesticides from river catchments contributes to nutrient loading in coastal areas, causing eutrophication and hypoxic zones. However, there are few legal mechanisms that link land-based agricultural policies with ocean conservation.

V. (A) Opportunities for Integrating These Systems Under a Unified Legal Framework

Addressing the legal and policy gaps between freshwater and marine conservation requires a more integrated and comprehensive framework. Integrated Water Resources Management (IWRM), which promotes the coordinated development and management of water, land, and related resources, offers a promising approach to bridging the divide between freshwater and marine ecosystems. However, legal frameworks need to be updated to reflect this integration at both national and international levels.

At the national level, countries like India could strengthen their legal frameworks by amending existing water and environmental laws to include explicit provisions that link freshwater management with coastal and marine protection[57]. For example, the National Water Policy could be expanded to include specific measures aimed at minimizing the impact of upstream water management on marine ecosystems. The incorporation of ecosystem-based

[57] United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and Sustainably Use the Oceans, Seas and Marine Resources for Sustainable Development", U.N. Doc. A/CONF.230/2022/10 (June 27–July 1, 2022).

management (EBM)[58] principles into water laws would ensure that both freshwater and marine ecosystems are managed as interconnected systems. This would involve setting cumulative impact thresholds for water pollution, land use, and resource extraction, considering their downstream effects on coastal environments. In terms of judicial and arbitration perspectives, current dispute resolution mechanisms tend to focus on the interpretation of national laws or treaties governing specific sectors—such as water rights or fishing zones without considering the broader ecological context. The lack of integrated dispute resolution frameworks limits the effectiveness of legal redress for environmental harm that crosses the freshwater-marine boundary.

For instance, judicial rulings on inter-state river disputes often prioritize water allocation between riparian states without addressing the environmental consequences for downstream ecosystems, particularly coastal areas. A more integrated approach would require courts and tribunals to consider the ecological impact of water diversion, dam construction, and pollution on both inland and marine environments. In this regard, environmental jurisprudence needs to evolve toward recognizing the ecological continuum[59] between rivers and oceans.

At the international level, arbitration under UNCLOS and other multilateral treaties could incorporate broader environmental principles that recognize the connectivity between freshwater and marine ecosystems. Current arbitration practices under UNCLOS, such as those adjudicated by the International Tribunal for the Law of the Sea (ITLOS)[60], typically deal with maritime boundary disputes, fishing rights, or marine pollution incidents, without delving into the impacts of inland activities on the marine environment. Expanding the mandate of such bodies to include land-based

[58] Timothy G. O'Higgins, Manuel Lago & Theodore H. DeWitt eds., *Ecosystem-Based Management, Ecosystem Services and Aquatic Biodiversity: Theory, Tools and Applications"* (2020), https://doi.org/10.1007/978-3-030-45843-0.
[59] Supra Note 64
[60] Statute of the International Tribunal for the Law of the Sea, Annex VI, UNCLOS, Dec. 10, 1982, 1833 U.N.T.S. 561.

activities impacting the sea would create a more holistic approach to ocean governance. For instance, arbitration could address upstream industrial activities that contribute to marine degradation through rivers, holding states accountable for the environmental impacts extending beyond their national borders.

In the context of transboundary rivers, international legal frameworks such as the UNECE Water Convention[61] could be expanded to incorporate marine conservation principles. By explicitly linking freshwater and marine governance, these frameworks could establish joint management bodies that oversee the entire river-to-ocean continuum, ensuring that activities upstream do not adversely affect downstream coastal and marine ecosystems. Legal provisions could mandate the inclusion of marine environmental considerations in river basin management plans, requiring states to conduct environmental impact assessments (EIAs) that evaluate both freshwater and marine impacts before approving projects such as dams, irrigation schemes, or industrial plants.

There is also a need to harmonize pollution control standards across freshwater and marine legal regimes. For example, while the Water Act in India sets pollution limits for rivers, these standards often differ from those applied to coastal waters under the Coastal Regulation Zone (CRZ) Notification[62]. Aligning these standards would ensure that pollutants discharged into rivers do not accumulate and cause harm to marine ecosystems. This could be achieved by creating integrated regulatory authorities responsible for overseeing water quality from source to sea, enabling more consistent enforcement of pollution control measures across jurisdictions.

In terms of judicial oversight, while India's judiciary has been proactive in environmental matters, it has primarily focused on freshwater systems,

[61] United Nations Economic Commission for Europe, *The Water Convention and the Protocol on Water and" Health*, https://unece.org/environment-policy/water (last visited Dec. 13, 2024).
[62] Ministry of Environment, Forest and Climate Change, Government of India, *Coastal Regulation Zone (CRZ)" Notification, 2019*, https://moef.gov.in (last visited Dec. 13, 2024).

leaving marine ecosystems under-addressed. For instance, landmark rulings such as the Vellore Citizens' Welfare Forum v. Union of India[63] case in 1996 emphasized the polluter-pays principle and laid the groundwork for environmental accountability. However, these rulings have mostly been confined to inland pollution issues, such as river contamination and industrial discharges, without sufficiently addressing their downstream impact on coastal and marine environments.

Moreover, there is a lack of specialized environmental courts or tribunals with the mandate to adjudicate cases involving the intersection of freshwater and marine ecosystems. Existing courts often treat these issues in isolation, leading to fragmented rulings that fail to account for the interconnectedness of water systems. Establishing environmental tribunals with expertise in both freshwater and marine law would ensure that cases involving land-based pollution, water use, and coastal degradation are handled more effectively, fostering a more integrated approach to environmental justice.

In conclusion, the legal and policy gaps between freshwater and marine conservation stem from the sectoral division of governance that fails to recognize the ecological continuity between these systems. Addressing these gaps requires an integrated legal framework that connects inland water management with coastal and marine protection. This would involve strengthening laws, harmonizing standards, and expanding the jurisdiction of judicial and arbitration bodies to ensure the sustainable management of water resources from source to sea.

VI. CONCLUSION

This research underscores the critical need for an integrated legal framework that bridges the existing gaps between freshwater and marine governance. The source-to-sea approach offers a novel perspective on water management by recognizing the ecological continuum between rivers, lakes, and

[63] Vellore Citizens' Welfare Forum v. Union of India", (1996) 5 S.C.C. 647 (India).

oceans—an aspect often overlooked in fragmented regulatory frameworks. Our study highlights that while international treaties such as UNCLOS, the UNECE Water Convention, and the Ramsar Convention provide important legal foundations, they operate in silos, failing to comprehensively address the cascading impact of upstream activities on marine ecosystems. Similarly, at the national level, frameworks such as India's Water (Prevention and Control of Pollution) Act, 1974, and the Environment (Protection) Act, 1986, primarily focus on pollution control and conservation but lack provisions that integrate freshwater management with marine protection.

By critically analyzing these international and national legal instruments, this study identifies several key shortcomings. First, international frameworks, particularly UNCLOS, provide broad obligations for marine environmental protection but do not impose binding commitments on states to regulate land-based sources of marine pollution. This legal ambiguity allows upstream pollution—whether from industrial discharge, agricultural runoff, or dam construction—to continue unchecked, affecting coastal and oceanic ecosystems. Second, at the national level, India's water laws emphasize inland water quality but do not establish explicit linkages between river health and marine conservation. As a result, activities such as large-scale riverine pollution, unsustainable water extraction, and unregulated urban waste disposal significantly degrade marine biodiversity, particularly in deltas and estuaries.

The research findings emphasize that a harmonized governance model is imperative to bridge these legal gaps. One of the key recommendations is the adoption of an Integrated Water Resources Management (IWRM) approach, embedded within both international and national legal frameworks. By recognizing the interdependence of freshwater and marine systems, IWRM can serve as a guiding principle for legal reforms, ensuring that national laws incorporate marine conservation within their regulatory scope. At the international level, expanding the mandates of agreements like the UNECE Water Convention to explicitly account for marine ecosystem impacts could

strengthen legal coordination. Furthermore, judicial intervention and dispute resolution mechanisms must evolve to address source-to-sea connectivity, ensuring that courts and arbitration bodies like the International Tribunal for the Law of the Sea (ITLOS) adjudicate cases that involve transboundary water management holistically, rather than in isolation.

A comparative analysis of international best practices also suggests that legal frameworks in countries such as the European Union's Water Framework Directive (WFD) and the U.S. Clean Water Act provide models for integrating upstream and downstream water governance. However, their application remains limited by geopolitical constraints and enforcement mechanisms, reinforcing the need for a legally binding global convention on freshwater-to-marine sustainability.

Ultimately, this research establishes that the absence of a unified legal framework perpetuates governance inefficiencies, weakens enforcement mechanisms, and undermines sustainable water management. To mitigate these challenges, legal reforms must ensure cross-sectoral policy alignment, enhanced transboundary cooperation, and stronger compliance mechanisms. Governments must adopt ecological integrity as a legal principle within water governance frameworks, embedding marine protection within freshwater laws and vice versa. By addressing the legal, institutional, and enforcement gaps identified in this study, policymakers can move towards a truly integrated, sustainable, and legally cohesive source-to-sea governance model.

MENSTRUAL LEAVE POLICY IN INDIA: PROGRESSIVE OR REGRESSIVE APPROACH?

Nikhil Jain*

ABSTRACT

Feminists have progressed significantly in establishing women's identity in public spheres. However, menstruation, which is a significant part of their biological identity, continues to question their existential value in the eyes of society. The ignorance and the absence of empathy towards this hidden subject escalate the preceding discriminatory behaviour against women. This paper addresses the taboos surrounding menstruation and the importance of the menstrual cycle. It highlights the development of the menstrual leave policies in the international and Indian landscapes. The debate on the menstrual leave policy has raised important issues about how workplaces can be more inclusive of women's bodies. Further, it analyses the contentions raised by the various stakeholders surrounding the menstrual leave policy, and finally, it suggests an appropriate path of inclusivity to establish a level playing field in the workplace.

Keywords: *Gender Equality, Menstrual leave policy, Menstruation, Period, Women's Health.*

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I. INTRODUCTION

Globally, feminists have been successful in campaigning and establishing women's identity in the public domain. However, they have failed to secure their existential value in the professional environment and work culture. Menstruation (commonly known as Period) is one such element which questions her existential value in society. Menstruation is the monthly vaginal discharge of blood and mucosal tissue from the inner lining of the woman's uterus.[1] It is a natural biological process and a part of a woman's hormonal cycle that prepares the body for pregnancy. On the one hand, the workplaces are becoming diverse and inclusive in nature, where everyone has equal access to rights, opportunities, and benefits. Women's participation in the workforce has been increasing, and they are significantly contributing to the growth of the economy. But on the other hand, these workplaces or organizations have remained insensitive to the biological needs of women.[2] Despite advancements in various spheres, the perception encompassing menstruation is still confined to the shadows of impurity, sin, and disorder. The society has still not evolved when it comes to the subject of menstruation. Only a small fraction of Indian society is openly approaching this subject, and the rest still considers it a matter of taboo.

It is important to understand that the experience of menstruation is not uniform among the women; a large section of this gender has to go through physical, mental, and emotional distress that severely affects their daily lives. Menstruation generally begins at the age of 13 and lasts till the age of 50.[3] The menstrual cycle ranges from 21 to 35 days, and the menstrual flow

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[1] Parmita Uniyal, Menstrual Hygiene Day 2023: Date, history, significance, theme, tips for menstrual hygiene, HINDUSTAN TIMES (May 28, 2023, 12:10 PM), https://www.hindustantimes.com/lifestyle/health/menstrual-hygiene-day-2023-date-history-significance-theme-tips-for-menstrual-hygiene-101685174775548.html.

[2] Liz Elting, In the Corporate World, There's No Such Thing As Women's Health — And That Needs To Change, FORBES (May 22, 2019, 05:22PM), https://www.hindustantimes.com/lifestyle/health/menstrual-hygiene-day-2023-date-history-significance-theme-tips-for-menstrual-hygiene-101685174775548.html

[3] Alice Klein, Starting periods at a young age is linked to early menopause, NEW SCIENTIST (Jan. 25, 2017), https://www.newscientist.com/article/2119117-starting-periods-at-a-young-age-is-linked-to-early-menopause/

ranges from two to seven days.[4] Women experience both premenstrual and postmenstrual symptoms. These symptoms include bloating, breast tenderness, mood swings, irritability, trouble sleeping, tiredness, and headaches, which eventually affect their day-to-day working.[5] According to a study, almost 90 percent of the women in India experience some form of dysmenorrhea (a medical term used for menstrual pain or menstrual cramps).[6] Attending the workplace during menstruation might lead to "presenteeism" at the workplace. Presenteeism is a condition in which the workers or employees attend their workplace but are too infirm to maintain the expected level of goals or productivity.[7] A 2017 study has shown that the respondents have reported productivity loss of almost 33 percent in their daily working life due to the menstrual cycle, which results in a mean loss of 8.9 days per year.[8]

There is relatively little research available about to what extent menstruation affects the daily life of an individual. One possible reason for the availability of less research about such research is that society still considers it a predominantly taboo, and the participants also hesitate to convey their experiences as there is potential concern in their mind that such research might disclose their privacy. However, the statistics in the findings of the available research about the extent to which menstruation affects the work life of an individual are surprising. A Dutch study has shown that 13.8 percent of women escaped from the workplace because of their menstrual cycle at least once semi-annually.[9] The study further reveals that around 3.4

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[4] HEALTHLINE, https://www.healthline.com/health/womens-health/stages-of-menstrual-cycle (last visited Nov. 21, 2024).

[5] Manan Dardi Et. Al., Fostering Women's Health, and Employment Equity: Acknowledging the Necessity for Menstrual Leave in The Indian Socio-Legal Framework, 5 INDIAN J. LAW LEGAL RES. 5706, 5707 (2023).

[6] Varnika Chaudhary Et. Al., *Lettering Menstrual Leave In the Constitution*, LIVE LAW (Feb 15, 2023, 11:40 AM), https://www.livelaw.in/lawschoolcolumn/lettering-menstrual-leave-in-the-constitution-221613

[7] Karanika-Murray Et. Al., *The health-performance framework of presenteeism: Towards understanding an adaptive behaviour*, 73(2) HUMAN RELATIONS 242, 244 (2020).

[8] *Supra* note 6.

[9] Mark E. Schoep Et. Al., *Productivity loss due to menstruation-related symptoms: a nationwide cross-sectional survey among 32748 women* 9(6) BMJ OPEN 1, 4-5 (2019).

percent of the women missed work every cycle.[10] The study also revealed that these menstruating women told their employer that they were ill on these days instead of asserting periods as a cause of their leave.[11] Billions of girls and women face health well-being issues because of a shortfall of education regarding menstruation. A study conducted in India by UNICEF reveals that around 70 percent of the women remained unaware of the menstrual cycle until their first cycle.[12]

The lack of empathy towards the invisible women-centric biological condition exaggerates the pre-existing discriminatory environment against her. In a generation where women are audibly proving themselves in every sphere, standing up for their rights, and shining in diverse fields, menstruation has unfortunately remained a silent subject matter. Menstruation leaves, if implemented, would allow individuals experiencing severe menstrual pain to take a break from their workplace or school, allowing their bodies adequate time to relax and support their health. The legal entitlement to the menstrual leave will also serve some other benefits. The menstrual policy will ensure to eradicate or at least reduce the prevailing societal taboo and educate the society about the menstrual cycle. The provision of menstrual leave will ensure equality in the real sense in the professional arena.

The absence of a fully-fledged legislation regarding the menstrual leave policy and the lack of sufficient legal assessment covering the cons and pros of the menstrual leave policies in India reveals the critical gaps in the existing literature. There is a split in opinion on menstrual leave policies, raising the concern whether these policies cause more damage than good. The menstrual leave policy is opposed in India, citing various potential cons. The most obvious disadvantage of this policy is that its utilization involves

[10] *Ibid.*
[11] *Ibid.*
[12] Azera Praveen Rehman, *Changing the future with lessons from the past Bharti advocates for stronger menstrual health*, UNICEF INDIA (May 27, 2022), https://www.unicef.org/india/stories/changing-future-lessons-past#:~:text=A%20UNICEF%20report%20had%20found,lives%20during%20the%20menstrual%20cycle

disclosure of individual privacy. The opponents of this policy also cite that the employers will discriminate against women while hiring employees or during promotion. Some argue that such a policy in society will reinforce the idea that women are weak in nature and they cannot perform their duties during the menstrual cycle. The present article provides an insight about the complexities involved in the menstrual leave policy. The article critically analyses the pros and cons of the menstrual leave policy and advocates for the nationwide implementation of the full-fledged menstrual leave legislation which address this issue effectively. The author also seeks to clarify here that the use of the term in this article, i.e., "women" or "individuals," is used as proxies for all the people who menstruate, including genders like cisgender women, transmen, and others.

II. RESEARCH METHODLOGY

The research methodology adopted for this study is primarily doctrinal research. The adopted research methodology aims to achieve a thorough understanding by examining relevant national and international policies governing menstrual leave policies. The data is collected through both primary and secondary sources. The primary sources include statutes, cases, regulations, and government documents. The secondary sources include journals, blogs, books, newspaper articles and NGO reports.

III. MENSTRUAL LEAVE POLICIES: THE INTERNATIONAL LANDSCAPE

This section will lay out a comparative law analysis of the existing menstrual leave policies throughout the world. It is significant to examine menstrual leave policies around the globe to take potential takeaways from the policies. Menstrual leave policies have not been recognized as a matter of legal right under international law; only a handful of countries have advocated and introduced mandatory menstrual leave provisions for menstruators in their country. The noticeable step by legislators towards menstrual leave traces back to post-World War I. After the First World War, menstrual leave was

initially introduced in some factories in Russia. In 1922, the Union of Soviet Socialist Republics introduced a menstrual leave policy that contributed two or three days of paid leave to women factory workers during menstruation.[13] The prime aim of this menstrual leave was to support women's reproductive health. However, the increase in discrimination against women workers during the 1930s led to the abolition of this menstrual leave policy.[14]

In 1947, Japan became the second country to introduce menstrual paid leave for female workers.[15] As per Article 68 of Japanese Labor Standards Act employers are required to provide menstrual leave to female factory workers who experience menstrual pain during their menstrual cycle.[16] The women workers in Japan struggled for almost two decades for the menstrual leave. The viewpoint of these women workers was that it empowers women to pursue equality in the workplace and supports bodily autonomy of women. In 1928, the female bus conductors in Japan lacked access to washrooms throughout the day, and the absence of sanitary napkins and washrooms made them unfeasible to work.[17] The women's labour union raised their voice and fought for paid menstrual leave, which resulted in the implementation of *seirikyuuka* (physiological leave) for those women who are having periods.[18] However, in the long term, the results of this paid menstrual policy came out as discouraging. The employers of various organizations have admitted that they are less likely to hire women employees because of the paid menstrual leave. Also, there is a concern among employers that some women may choose the practice of 'cashing in' their menstrual leave on being a woman.[19]

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[13] Njeri Wagacha, *The concept of menstrual leave,* CDH (May 2, 2023), https://www.cliffedekkerhofmeyr.com/en/news/publications/2023/Practice/Employment/employment-law-alert-2-may-2023-the-concept-of-menstrual-leave.html.

[14] *Ibid.*

[15] Natalie Huet, *Spain's menstrual leave: The countries that have already tried and tested days off for period pain,* EURO NEWS (May 13, 2023, 06:20 PM), https://www.euronews.com/next/2022/05/13/spain-s-menstrual-leave-the-countries-that-have-already-tried-and-tested-days-off-for-peri.

[16] Labor Standards Act, 1947, art. 68, No. 49, Acts of Parliament (Japan).

[17] Hilary H. Price, *Periodic Leave: An Analysis of Menstrual Leave as a Legal Workplace Benefit*, 74(2) OKLA. L. REV. 187,189-190 (2022).

[18] *Ibid.*

[19] *Ibid.*

The case of Japan highlights that it is not only difficult to implement but also to enact such policies.

In 1948, Indonesia became the third country to bring paid menstrual leave policy into force.[20] The policy was later amended in 2003, and it provides that the women employees who are suffering from menstrual pain are not obliged to work during the first two days of the menstrual cycle.[21] There are some instances and societal practices that hinder the effective implementation of these policies. For example, Nike and Adidas claim that they have adopted the menstrual leave policy in their organizations. But some incidents have been reported as such: women being asked to pull down their pants and show that they are suffering from menstrual cycle to claim the benefits of the policy. Such incidents made women face excessive humiliation, and it eventually hindered the aim of these kinds of policies women were made.

In 1953, South Korea became another country to introduce a menstrual leave policy. The legislature of South Korea introduced the Labour Standard Act, which supports paid menstrual leave for working adult females.[22] The law states that one day's menstrual leave will be provided to working adult women to support the maternity protection.[23] Later, the law was amended in 2003, and it changed the nature of the leave from paid to unpaid.[24] The amendment also made the request of a female concerned a mandatory condition for claiming the benefit of the policy.[25] This policy, as provided under Article 73, remained ineffective because only a few employers supported and implemented this policy in their organizations. The implementation of the law is quite different in the real world. In other words,

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[20] Sunishtha Moghe Et. Al., *The Feasibility of Menstrual Leave as Human Resource Policy in India: A Gender Perspective* 7(4) BiLD Law J. 90, 91 (2019).
[21] Niha Masih, *Need time off work for period pain? These countries offer 'menstrual leave.* THE WASHINGTON POST (Feb. 17, 2023, 04:56 AM), https://www.washingtonpost.com/world/2023/02/17/spain-paid-menstrual-leave-countries/
[22] Elim Kim, *Korean Women's Activities for Legislation to Guarantee Gender Equality in Employment*, 5 J. KOREAN L. 49, 53 (2006).
[23] *Ibid.*
[24] *Id* at 57.
[25] *Id* at 54.

the law in its ambit provides complete protection to female employees, but a large section of the employers does not implement such a policy in its true sense. The policy also failed because many Korean women admitted that they hesitated and felt uncomfortable asking their male employers about the leave owing to the menstrual cycle.[26]

In the case of Australia till date, there is no national policy for menstrual leave. But it is important to mention an Australian company named Victorian Women's Trust, which works to promote gender equality. The company came to light in 2017 when it introduced a paid menstrual leave policy. Its menstrual leave policy provides twelve days of paid leave annually for women employees who are suffering from menstruation and menopause.[27] The company's menstrual leave policy is separate from its sick leave policy, and moreover, the company also provides employees an option to work from home or allow its employees to take rest in a comfortable office space.[28] The company also provided a "menstrual policy template" for employers to read, adopt, and follow the policy in their organizations.[29] The company also conducted a survey and found that 58 percent of the female employees feel that one day of leave during the menstrual cycle would improve their experience of periods.[30] The survey also found that 24 percent of the female employees feel that it would improve their period experience if they could freely ask their male employers to accommodate menstrual cycles.[31]

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[26] Justin McCurry, *Period Policy in Asia: Time Off 'May Be Seen as a Sign of Weakness'*, THE GUARDIAN (Mar. 4, 2016, 05:38 PM), https://www.theguardian.com/lifeandstyle/2016/mar/04/period-policy-asia-menstrual-leave-japan-women-work

[27] Benita Kolovos, *Keep working like nothing is wrong': women make the case for paid menstruation leave,* THE GUARDIAN (Mar. 7, 2023, 02:00 PM), https://www.theguardian.com/australia-news/2023/mar/08/keep-working-like-nothing-is-wrong-women-make-the-case-for-paid-menstruation-leave.

[28] Samantha Taylor, *Victorian Women's Trusts' menstrual leave policy a game changer,* THE CITY JOURNAL (Jul. 30, 2017), https://thecityjournal.net/news/victorian-womens-trusts-menstrual-leave-policy-game-changer-working-women/

[29] Victorian Women Trust, https://www.vwt.org.au/wp-content/uploads/2017/04/Menstrual-Leave-Template.docx (last visited Nov.22, 2024).

[30] Gabrielle Golding Et. Al., *Paid Period Leave for Australian Women: A Prerogative Not a Pain*, 43(3) Sydney L. Rev. 349, 362 (2021).

[31] *Ibid.*

In 2015, Zambia introduced a menstrual leave policy in the Employment Code Act, which provides that one day off per month to all female employees to support their health during periods.[32] The leave day is known as "Mother's Day." The law states that an employer can be prosecuted if he denies menstrual leave to a female worker.[33] The Zambian culture is based on a patriarchal mindset, and it supports the notion of benevolent sexism. Benevolent sexism emphasizes that the main function of woman's gender is to bear children.[34] Such notion gives power in the hands of the opponents of menstrual leave policy, as they can now argue against menstrual leave policy by stating that menstrual leave brings disgrace to true equality between the two genders.

The above-mentioned menstrual leave policies introduced in various countries have shown that the menstrual leave provokes numerous issues, and the varying culture of a country plays an important role in motivating the legislators to enact the menstrual leave policy.

IV. ADVANCEMENTS IN THE INDIAN LEGAL FRAMEWORK FOR MENSTRUAL LEAVE POLICIES

The implementation of menstrual leave policies across various jurisdictions has gained international recognition. Japan, Indonesia, South Korea, Australia, Zambia, etc. are some of the countries that grant periodic leave to women. In recent years, with respect to India, the country has also witnessed some developments in the legal framework pertaining to the menstrual leave. Some states in India have made honest efforts to provide women with menstrual leave. In 1992, Bihar became the first state and displayed prominent leadership by providing two days of paid menstrual leave every

[32] Kennedy Gondwe, *Zambia Women's 'Day Off for Periods' Sparks Debate*, BBC NEWS (Jan. 4, 2017), https://www.bbc.com/news/world-africa-38490513.
[33] *Ibid.*
[34] The Ocford Review, https://oxford-review.com/the-oxford-review-dei-diversity-equity-and-inclusion-dictionary/benevolent-sexism-definition-and-explanation/ (last visited Nov. 22, 2024).

month to female public sector employees.[35] The paid leave is not referred to as menstrual leave; rather, it is designated as leave for "biological reasons".

After two and a half decades in 2017, the MP Ninong Ering of Arunachal Pradesh introduced a private member bill known as the Menstruation Benefits Bill in Lok Sabha.[36] The bill seeks to provide four days of paid menstrual leave to women employees working in any organization or institution registered with the government.[37] The bill was introduced as a response to an increasing writ petition for implementation of a policy that would permit female employees to take menstrual leave. The bill expanded its scope to provide four days of vacation period to females of school age.[38] Moreover, its provisions also included a policy of two 30-minute breaks every day for women employers or employees suffering from menstruation.[39] The bill also ensured a robust complaint system. A woman can complain to an internal complaint committee formed under the Sexual Harassment of Women at Workplace Act 2013 or any other redressal committee established within the institution that would act against complaints connected to menstrual leave.[40] The primary aim of the bill was to provide women with a favourable working environment in their workplace. However, the bill remained unsuccessful in becoming a law. Subsequently again in 2022, the same MP Bill was reintroduced in the Arunachal Pradesh Legislative Assembly by the same man, Ninong Ering, as an MLA.[41] However, the bill was dismissed by the Legislative Assembly, citing it as an "unclean topic."[42]

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[35] Falguni Sharma, *Lalu's Bihar to Spain — controversial journey of menstrual leave spans decades,* THE PRINT (Feb. 23, 2023, 10:18 PM), https://theprint.in/india/lalus-bihar-to-spain-controversial-journey-of-menstrual-leave-spans-decades/1394082/

[36] The Menstruation Benefit Bill, 2017, No. 249, Bills of Parliament (India).

[37] *Ibid.*

[38] *Ibid.*

[39] *Ibid.*

[40] *Ibid.*

[41] Akanksha Khullar, *The unfortunate non-debate on menstrual leave in Arunachal Assembly*, DECCAN HERALD (Mar. 30, 2022, 06:03 PM), https://www.deccanherald.com/opinion/the-unfortunate-non-debate-on-menstrual-leave-in-arunachal-assembly-1096126.html

[42] Varnika Chaudhary Et. Al., Lettering Menstrual Leave In the Constitution, LIVE LAW (Feb. 15, 2023, 11:40 AM), https://www.livelaw.in/lawschoolcolumn/lettering-menstrual-leave-in-the-constitution-221613.

Here the irony is that the Kamakhya Temple, located in the neighbouring state of Assam, is known for the celebration of the Ambubachi Mela every year. The temple is closed for three days, which marks the goddess's menstruation period.[43] The festival provides a platform to promote women's empowerment and address taboos regarding the menstrual cycle.[44]

In 2022, an attempt was made by Congress MP Hibi Eden from Kerala to introduce a bill known as "The Right of Women to Menstrual Leave and Free Access to Menstrual Health Products Bill."[45] The proposed legislation seeks to provide three days of paid menstrual leave to women and ensures free access to menstrual hygiene products like sanitary pads and tampons.[46] The Bill, being a private member Bill, is still not passed by the Parliament. There is still ongoing debate regarding the pros and cons of the bill. The opponents of the bill raise more concern, particularly about the implementation of such policy and the potential economic implications of such policy.

Kerela, in 2023, became the second state to implement a three-day menstrual leave policy for female students and employees in all state universities and institutions. The Kerala government described the policy as a part of "commitment to realizing a gender-just society." However, the policy only covers government schools, universities, and other institutions under the Department of Higher Education. Other sectors like health, transport, information technology, pharmacy, media, etc. are not covered under its ambit.

Recently, Odisha, in August 2024, introduced one-day paid menstrual leave for all employees in the state government and private sector. The leave is optional in nature and can be claimed on either the first day or second day of the menstrual cycle. The policy is aimed at creating a favourable

[43] Rahul Karmakar, *Celebrating the goddess who bleeds,* THE HINDU (Jun. 23, 2018, 12:00 AM), https://www.thehindu.com/news/national/other-states/celebrating-the-goddess-who-bleeds/article24234722.ece
[44] *Ibid.*
[45] The Right of Women to Menstrual Leave and Free Access to Menstrual Health Products Bill, 2022, No. 276, Bills of Parliament (India).
[46] *Ibid.*

environment for women employees and acknowledging the challenges they face due to biological reasons. Till now, Bihar, Kerala, and Odisha are the only states that have implemented the menstrual leave policy. Most recently, many of the National Law Universities, including NALSAR Hyderabad, NLIU Bhopal, NLSIU Bangalore, DNLU Jabalpur, HNLU Raipur, MNLUN Nagpur, NLUD New Delhi, MNLUM Mumbai, and MNLU Aurangabad, demonstrated a commitment in support of the evolving narrative by introducing a menstrual leave policy for female students.

Some of the companies also became part of this revolution by implementing the period leave policies. These companies include Orient Electric, Scalar, Seclore Technologies, Zomato, Culture Machine, Mathrubhumi, Byju's, Gozoop, Wet & Dry, Magzter, and Industry ARC.[47] The above-mentioned list, though not exhaustive, reflects a ray of hope for welcoming menstrual leave policy at the workplace.

Recently, in 2024, a writ petition was filed under Article 32 of the Constitution of India to direct the Union and State Government and the Union Territories to implement menstrual leave policies under the Maternity Benefit Act, 1961.[48] The three-judge bench, composed of CJI Dr. DY Chandrachud, Justice J.B. Pardiwala, and Justice Manoj Mishra, ruled that the Union Government should formulate a model policy on menstrual leave after consulting with state governments and other stakeholders.[49] The court further clarified that the issue was a policy matter and not for the courts to look into. This is not the first instance that the menstrual leave policy matter is brought before the judiciary. In the year 2020, the Delhi High Court directed the Centre and Delhi government to examine a petition asking for

[47] Divya Bhati, *After Swiggy and Zomato, another company announces period leave for women employees*, INDIA TODAY (Dec. 22, 2022, 08:21 PM), https://www.indiatoday.in/technology/news/story/after-swiggy-and-zomato-another-company-announces-period-leave-for-women-employees-2312424-2022-12-22

[48] Krishnadas Rajagopal, *It's Centre's call, says Supreme Court on menstrual leave policy,* THE HINDU (Feb. 24, 2023, 10:23 PM), https://www.thehindu.com/news/national/supreme-court-refuses-to-entertain-pil-seeking-menstrual-pain-leave-for-female-students-and-working-women/article66548297.ece

[49] *Ibid.*

paid menstrual leave for employees, but there was no progress in the matter.[50]

The ongoing discussions and efforts regarding the menstrual leave in India undoubtedly signifies that there is a major societal shift towards understanding, recognizing, and prioritizing women's health and promoting gender equality in the workplace. Developing a nation-wide model menstrual leave policy can make India join the global international movement towards bolstering up women during the menstrual cycle and promoting a women's health-friendly environment that serves their unique biological needs.

V. ANALYSING THE ARGUMENTS SURROUNDING MENSTRUAL LEAVE AND ESTABLISHING THE PATH OF INCLUSIVITY

The conception of menstrual leave is often perceived as a threat to economic prosperity, gender equality, and women's empowerment. The foremost argument that the opponents of menstrual leave cite is that mandating paid leave, particularly for menstruation, could lead to discrimination. This argument was also raised during the paid maternity leave debate. It was argued that the maternal leave or paternal leave could lead the pregnant employees to get fired from their job or may be treated worse at work. Some research has shown that maternity leave causes employers to avoid hiring female employees.[51] For obvious reasons, the employer is more concerned about the cost implications that the employer has to incur. Not only the employer has to pay 26 weeks of no work to a female employee,[52] but they also have to arrange a substitute to get the work done on time. But it is to be noted that maternity leave cannot be compared to menstrual leave owing to the fact that 26 weeks, i.e., around 180 days, is a quite long duration. In the

[50] Delhi Labour Union vs Union of India, (2020) W.P.(C) 8196/2020.

[51] Press Association, 40% of managers avoid hiring younger women to get around maternity leave, THE GUARDIAN (Aug. 12, 2014, 00:04 AM), https://www.theguardian.com/money/2014/aug/12/managers-avoid-hiring-younger-women-maternity-leave#:~:text=40%25%20of%20managers%20avoid%20hiring%20younger%20women%20to%20get%20around%20maternity%20leave,-This%20article%20is&text=A%20third%20of%20managers%20would,according%20to%20a%20new%20study

[52] Maternity Benefit Act, 1961, § 5(3), No 53, Acts of Parliament, 1961 (India).

case of menstrual leave, one day of leave per month will not cause an employer to incur a heavy cost in a single go. Also, the employer does not need to arrange a substitute or hire another person for the work.

The critics argue against menstrual leave by stating that a menstrual leave policy extends gender inequality between men and women, keeping men on the losing side. The argument seems to be valid, as there is no such kind of policy available for men to provide them with protected workplace leave. However, legally, the argument is inconclusive. In the case of men and women, both genders do not stand on the same pedestal as men do not menstruate. Therefore, recognizing the biological needs of a woman and providing menstrual leave to female employees reduces social stigma, addresses the gender pay gap, improves well-being and health, and eventually brings gender equality in the true sense.

Another argument of opponents is that the female employee may abuse the policy as a means of "cashing in." This argument is just based on assumption, and it seems weak and biased. It is a fact that if a female employee needs to claim a leave under the menstrual leave policy, she is required to surrender her privacy and disclose her menstrual status to her employer, and sometimes to other colleagues with whom she collaborates. Given the criteria to claim menstrual leave, it is less likely that women employees will misuse the policy. Though there may be a small fraction of female employees who may misuse the policy, but this cannot serve as a basis for not providing menstrual leave to the remaining section of women who genuinely need menstrual leave owing to biological needs.

It is to be noted that menstruation is a crucial part of life for around half of the world's inhabitants. Every month, 180 crore people across the universe menstruate.[53] Yet the concept of menstruation is still wrapped in social stigma and shame. In a study published in 2002, it was found that when a woman accidentally dropped either a tampon or hair clip out of her handbag,

[53] UNICEF, https://www.unicef.org/wash/menstrual-hygiene (last visited Nov. 23, 2024).

she was deemed as weak and less competent and prone to be physically and psychologically avoided in case she dropped a tampon instead of a hair clip.[54] Such a mindset is the anathema of lack of education and knowledge. Therefore, implementing a nation-wide menstrual leave policy can potentially reduce the social stigma and taboo around menstruation by publicly accepting menstruation as a part of the normal biological function of women's bodies and allowing the public to discuss menstrual health in the workplace and normalize the menstrual experiences.

Menstrual leave policy may serve as a source helpful to benefit small but far-too-often neglected segments of society. These segments include genderqueer and non-binary individuals, as well as transgender men. If they are offered leave from such a policy, they may feel an escalated amount of protection because during menstruation they may face an increased amount of transphobia and other types of gender prejudice. In a study, it was disclosed that transmen do not feel safe to use public restrooms during their menstrual cycle because they worry that it will disclose their menstrual status, which can result in both discrimination and violence.[55] If the menstrual leave is in effect, they can utilize the leave to escape from having their menstrual status disclosed.

Menstrual leave policy is not a one-size-fits-all approach, and the issues surrounding the policy are vast and complex. The policy gives hike to conflicts across economic, social, cultural, and gender spaces. Perhaps this is the reason why menstrual leave policy is always globally debated and the stakeholders have their valid interests.

There is a need to carve out a path of inclusivity in the context of menstruation leave policy. It is a universal fact that every woman does not

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[54] Jamie L Goldenberg Et. Al., *"Feminine Protection": The Effects of Menstruation on Attitudes Towards Women*, 26 PSYCH. WOMEN Q. 131, 135–136 (2002).

[55] Rachel B. Levitt Et. Al., Addressing Menstruation in the Workplace: The Menstrual Leave Debate, IN THE PALGRAVE HANDBOOK OF CRITICAL MENSTRUATION STUDIES 561, 567 (2020).

have the same experience during their menstrual cycle, and some might even not require menstrual leave, but the menstrual leave of the other women employees cannot be disregarded. To settle both sides of the argument, it is proposed that the menstrual leave should not be a compulsory measure but instead a choice-based one. The menstrual leave policy should be drafted with a balanced approach that is sensitive to the biological needs of female employees and, at the same time, filters the cases of blatant misuses. Moreover, to preserve the privacy of women employees, the record-dairies of menstrual leave must only be made accessible to the human resources department of the employer.

Employers should provide menstrual hygiene services, such as access to menstrual products, such as sanitary napkins, heating pads, and disposer machines, and regular breaks to support menstruators and create a more inclusive workplace for all. A flexible alternative is working from home, which has been the standard norm during the Corona pandemic. Utilizing the option of working from home, the menstruators can work comfortably from their home without hampering the work productivity or efficiency. The work from home option has proved to be successful during the pandemic, and it precludes nearly all the liabilities of the menstrual leave policy that allows a complete day off from work. It can also soothe adverse gender-based employment hiring outcomes and work productivity.[56] However, it is to be noted that the work-from-home option also has some shortcomings as it would only benefit persons employed in office-based employment. Workers employed in service-based industries such as event services, travel agencies, transportation, or media are precluded from such a leave policy.

VI. CONCLUSION

Menstruation is a natural monthly phenomenon experienced by half of the race of humankind, yet it is not recognized and considered taboo in our

[56] Isabel Villamor, *3 ways remote work is a double-edged sword for women's careers*, World ECONOMIC FORUM (Nov 24, 2023), https://www.weforum.org/stories/2023/11/remote-work-workplace-women-careers/

society. The word 'period' is itself viewed as raised eyebrows. Such prevailing environment makes it even more difficult for menstrual leave to find a place in the human resource policies of employers. It is also important to note that menstrual leave must not be associated with sick or casual leave because menstruation is natural and not an illness. Menstrual pain is a biological issue that women have to suffer in silence, with their pain ignored as mere "women's troubles." The situation calls for without further delay that we normalize taboo surrounding menstruation and provide women with an inclusive environment. The main intent of the employers to ignore the menstrual leave policy is that it hampers the productivity of the work efficiency. However, providing menstrual leave will make the work environment more inclusive and flexible for all the employees, and it will ultimately boost the work productivity. The menstrual leave policy shall also reduce the stigmatization surrounding menstruation and workplace-related stress. Implementing 'the menstrual leave' policy is definitely a difficult step as per our present society, but it is a much-needed step to bring change in the right direction.

There is an apprehension that allowing the menstrual leave may lead to increased financial costs, potentially resulting in a preference for male employees over female employees. But these are just an assumption, and such arguments have been countered earlier in this paper with logical arguments and studies. Therefore, it is suggested that the government should implement a nation-wide menstrual leave policy through a separate full-fledged legislation covering private organizations in its ambit, providing women with the choice to avail menstrual paid leave or not. If menstrual leave is not suitable in certain sectors, a feasible working environment can be provided. A work-from-home option, as discussed earlier, can be provided to menstruators. The need is urgent that society and the nation recognize the menstrual period and take steps to reduce taboo surrounding menstruation and provide menstrual leave to women employees.

ADDRESSING THE MANIPUR CRISIS: POLICY INTERVENTIONS AND PATHWAYS TO RECONCILIATION

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Sarah C. Nunthuk**

ABSTRACT

The violence that erupted in Manipur on 3rd of May 2023, in a year, resulted in the injury of over 1,500 people, the displacement of 60,000 residents, the destruction of 13,247 structures, and the death of 226 individuals and is still continuing. This crisis has prompted a massive outcry and protests from across the nation, with calls for peace and demands for the government to take concrete steps to control the bloodshed. This paper on the focus on regarding the Manipur crisis in Parliament and delves into the intricacies of state's current situation, and tragedies. It sheds light on the various parties involved and provides an update on the present state of affairs. A central point of the discussion is Article 356 of the Constitution of India, which grants the President the authority to impose President's Rule in states facing governance challenges. By examining the perspectives of the framers of the Constitution, commission reports and Supreme Court, this paper seeks to understand the relevance and applicability of this provision in Manipur's context.

There will be a critical analysis the need for the imposition of the President's rule in Manipur and both political as well as constitutional reasons for its non-imposition till now will be discussed. Furthermore, it

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analyzes the constitutional complexities surrounding Manipur's governance issues and suggests both administrative and constitutional remedies. By offering practical solutions, this paper aims to contribute to the current dialogue on addressing Manipur's governance crisis.

Through a combination of accessible analysis and practical solutions, this paper aims to provide a more nuanced understanding of Manipur's challenges, paving the way for informed decision-making and effective action.

***Keywords**: Manipur Violence, President's Rule, Constitutional changes, Reconciliation, Peace.*

I. INTRODUCTION

"Keep your hands on your heart and think about the 60,000 people who are languishing in relief camps, and those mothers, those widows, think of them and then you talk about nationalism. Only then we will understand what this tragedy means"- Bimol Akoijam[1]

On 1st of July 2024, nearly ten minutes before the midnight, when hardly anyone was present in the house, Mr. Akoijam, an MP from the state of Manipur, got a chance to raise a voice for his state in the Parliament after a long, long time. In a short, but a very fiery and passionate speech, Mr. Akoijam criticized the absence of the Manipur issue from the President's address to Parliament and vehemently castigated the Centre government for failing in controlling the continuous violence and bloodshed in the state.

The matter of the heated debate, Manipur, has been engulfed in a spiral of ethnic violence since May 2023, resulting in a staggering death toll and widespread displacement. Stemming from long-standing tensions between the Meitei majority, largely Hindu and residing in the capital and surrounding valley, and the predominantly Christian Kuki-Zo, scattered

[1] D Achom, *A Nobody Like Me...: Manipur Congress MP's Speech Jab BJP's "Core Issues"*, NDTV (July 4, 2024, 10:00 AM).

across the hills, the conflict escalated over when the High Court of Manipur ordered the state government to grant Meitei's a Scheduled Tribe status. This move sparked protests among the Kuki-Zo, fearing loss of entitlements and dominance of Meitei community, leading to retaliation and violent clashes, looting, and arson being conducted by both sides of the aisle.[2]

The situation has spiraled into militias and radical groups from both sides fortifying positions, blockades segregating communities, and reprisal attacks targeting homes and places of worship. Additionally, allegations of numerous rapes and other crimes against women have surfaced from both the sides, intensifying the gravity of the situation. One of the worst gruesome events of this violence happened on 7th November 2024 when a woman teacher was shot, allegedly raped, killed and burnt to ashes to such an extent that even samples could not be taken for autopsy report.[3]

Despite some government efforts to quell the unrest, sporadic violence persists, with the state divided along ethnic lines. The demand for separate administration by the Kuki-Zo adds another layer of complexity to an already volatile situation, underscoring the deep-rooted ethnic divisions and challenges to maintaining peace and stability in Manipur which needs both immediate and long-term solutions.

Amid the ongoing unrest in Manipur, a recurring question emerges: Why not impose President's Rule? This inquiry, raised by journalists, politicians, and citizens alike, may seem straightforward, but it demands more than a cursory response. The issue extends beyond the mere existence of Article 356 as it requires a careful evaluation of whether its imposition would resolve the crisis or exacerbate it.

Before advocating for President's Rule, we must consider several critical aspects and key research gaps: What was the original intent behind

[2] Graeme Baker, *Manipur Violence: What is Happening and Why*, *BBC News* (July 20, 2023, 9:30 PM).
[3] D Achom, *How an Attack on a Village in Manipur's Jiribam Sparked a New Cycle of Turmoil*, NDTV (Nov. 18, 2024, 8:00 AM).

incorporating this provision? Would an alternative approach, like the Armed Forces (Special Powers) Act ("AFSPA"), be more appropriate? If President's Rule is truly necessary, why has it not been imposed yet?

Rather than rushing to conclusions, we must pause and engage in a nuanced analysis of its scope and implications. Without such careful consideration, the imposition of President's Rule could risk further destabilizing an already fragile situation.

In this backdrop, the initial sections of this paper will delve into the necessary details of Article 356. This includes a doctrinal research analysing the Constitutional framers' intentions in incorporating this provision and the major developments in its interpretation post-independence including commission reports and landmark judgements. Following this, we will argue why the conditions in the state indeed require an imposition of Presidential role, scrutinizing the current situation from both constitutional and political perspectives. Finally, we will end with the concluding remarks along with suggesting some long-term additional ways to bring peace back to Manipur.

II. INSIGHTS FROM THE CONSTITUENT ASSEMBLY: PERSPECTIVES ON PRESIDENTIAL RULE

Article 356 empowers the President to impose President's Rule in a state if it's state government cannot function according to the constitutional provisions. This is done based on the Governor's report or otherwise and results in the central government taking over the state's executive functions. It is also being referred as the "failure of constitutional machinery" in a state.

As Article 74(1) states that President has to mandatorily act according to the aid and advice of the Council of Ministers, the ultimate power to enforce President's rule lies in the hand of the Central Government.[4]

[4] *Constituton of India*, art. 74(1) (1950).

During the framing of the Constitution, there were extensive debates on the draft version of Article 356, i.e., Article 278[5]. Mr. Nizamuddin Ahmad, a member of the Constituent Assembly who represented West Bengal, criticized it by stating that act of the central government taking control of the administration of a state could lead to confusion. However, this concern was rebutted by Mr. Thakur Das Bhargava, emphasizing that the central government assumes administration precisely to prevent confusion and chaos and given the disorder stemming from the breakdown of constitutional machinery, it's preferable for the Centre to intervene and manage administration, as most would agree.[6] It was also argued that a power-giving provision like Article 356 is necessary for the enforcement of Article 277-A[7] later becoming Article 355[8], which talks about the duty of the Centre undertaking whatever actions they deem necessary to protect the state during certain circumstances. Otherwise, Article 277 A will be a mere pious wish.[9]

Another point of debate was taking the inspiration of Article 356 from Section 93 of the Government of India Act 1935", [10] a provision which was intended to curb the freedom movement in the provinces. Mr. O. V. Alegsan, a member of the Congress party, even called it a mockery of provisional autonomy,[11] while Mr. Algu Rai Shastri stated that retaining such provision shows that the British mentality of distrust is still existing.

Dr. B. R. Ambedkar clarified this contended relationship between Article 356 and Section 93 is there to explain the meaning of the phrase "the provisions of the Constitution." He asserted that the de facto and de jure essence and meaning of this phrase in Article 356 was derived from the Section 93 of Government of India Act, 1935."

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[5] *Draft Constituton of India*, art. 278 (1948).
[6] *Constituent Assembly Debates*, vol. 9 (Aug. 4, 1949, 10:00 AM), https://www.constitution ofindia.net/debates/04-aug-1949/."
[7] *Draft Constituton of India*, art. 277-A (1948).
[8] *Constitution of India*, art. 355 (1950).
[9] *See supra note 7.*
[10] *Govermnent of India Act*, § 93, (1935) (India).
[11] See *supra* note 7.

In this context," it is noteworthy that Section 93 of the Government of India Act, 1935 was inducted due to the Report of the Joint Committee on Indian Constitutional Reform which recommended" an authority with sufficient power to maintain balance among conflicting interests and safeguard those lacking both influence and capability to defend themselves ensuring peace and tranquility in any part of India.[12]

Dr. Ambedkar also remarked that such provisions were unlikely to be frequently invoked, suggesting they would largely remain "dead letters" in practice, serving more as a safeguard than an active instrument of governance.[13]

These debates on Article 356 reflected concerns over its colonial origins and potential misuse, but it was ultimately retained as a mechanism to address situations where a state fails to uphold constitutional governance. Its inclusion was justified as essential for ensuring national integrity and security, providing the Centre with a tool to step in when necessary to maintain order and stability.

III. CONTEMPORARY INSIGHTS ON THE INVOCATION OF PRESIDENT'S RULE

With respect to the perspective on objective and usage of Presidential rule, adopted in the contemporary times, one of the most relevant ones was that of Sarkaria Commission Report on Centre-State Relations in 1983.It has recommended that Article 356 must be exercised "very sparingly, in extreme cases, as a measure of last resort, when all the other alternatives fail to prevent or rectify a breakdown of Constitutional machinery in the state have been exhausted".[14]Such failures can be manifested in various ways, making it challenging to provide an exhaustive list.

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[12] *Joint Committee on Indian Constitutional Reform, Joint Committee on Indian Constitutional Reform Session 1933-34,* at 117–188 (H.M.S.O. 1934).
[13] *Ibid.*
[14] *Sarkaria Commission Report on Centre-State Relations,* ch. VI, at 13 (1983),

However, some instances are categorized by the Sarkaria Commission which are as follows:

a. Political crisis: Unable to form a majority in the Legislative assembly of the State.

b. Internal subversion: The State government is undermining responsible governance.

c. Physical breakdown: Inability to the address internal disturbances or natural disasters.

d. Non-compliance: Neglecting national infrastructure or ignoring directives during wartime.

Adding on to it, some more circumstances were given in the famous case of"*SR Bommai v Union of India*"by Reddy and Agrawal JJ which are as follows[15]: -

a. Large scale breakdown of the law and order and public order situation.

b. Severe mismanagement of affairs by the state government.

c. Misuse of authority or corruption within the state administration.

d. Threat to national integration or state security, including actions supporting national disintegration or separatist movements.

e. Subversion of the Constitution while professing to adhere to it, creating disunity or disaffection among the populace.

These attempts sought to narrow the scope of imposing Presidential rule, particularly in light of its use for political purposes, such as during the period from 1969 to 1971 when, following the split in the Congress party, Indira Gandhi's strategy of invoking Article 356 led to the replacement of non-

[15] S.R. Bommnai vs. Union of India, (1994) 4 SCC 1.

Congress state governments with compliant administrations.[16] These same principles were again emphasised in *Rameshwer Prasad v. Union of India*. [17]

IV. NEED FOR PRESIDENT'S RULE IN MANIPUR: ASSESSING THE IMPERATIVE

In the previous sections, we examined the purposes for which Article 356 was introduced, as outlined in the Constituent Assembly. We have also analysed suggestions from various committees and cases regarding the circumstances under which President's Rule should be imposed. Now, we will look into whether the current situation in Manipur fit these criteria and scenarios, considering the constitutional provisions and the on-ground realities.

In Manipur, internal divisions within the police force, particularly between Meitei and Kuki officers, have led to a weakened security apparatus. This situation is exacerbated by the departure of 1500 individuals from their posts, leaving communities fragmented. Despite the theft of weapons and administrative officers abandoning their posts, efforts to address these issues remain lacking.[18]As tensions escalate, accusations of bias towards Meiteis and leadership failures persist, with a notable outcry by opposition, public groups and media. The situation is worsened by the proliferation of fake news, both online and in traditional media. For instance, a notable news agency wrongly associated an individual from an unrelated case with the infamous gang rape incident, exacerbating misinformation and compromising the constitutional value of freedom of expression.[19] The Supreme Court has also criticized the government for ethnic violence in Manipur, citing a "breakdown of constitutional machinery" for two months. Chief Justice D.Y.Chandrachud condemned the state police's loss of control

[16] S Dash, *Emergency Provision in Relation between the Union and the States in India*, 22 *Indian J. Pol. Sci.* 53, 53-63 (1961).
[17] Rameshwer Prasaad (6) v. Union of India, (2006) 4 SCC 1.
[18] S Basak, *Even the Police in Manipur Are Divided on the basis of Ethnicities*, *The Quint* (June 15, 2023, 10:00 AM).
[19] S Menon, *Manipur: Misleading Information Shared About Tensions*, *BBC Verify* (July 27, 2023, 10:00 AM.

and absence of law and order, criticizing the lethargic investigation with delays in FIR registration and statement recording. Interrogation delays and discrepancies like a FIR dated July 26 for a May 4 incident were noted, highlighting inadequate information provided.[20]

These instances show that there has been indeed a breakdown and failure of constitutional machinery of the state government and a situation of complete chaos and disorder.

The recent atrocities Jiribam district also reveals the confusion stemming from unclear accountability, weak leadership, and poor coordination in managing the crisis. Delayed action by the Chief Minister, alleged interference from Delhi, and ignored intelligence warnings have undermined trust in governance. Ethnic tensions and accusations of favoritism further complicate decision-making, creating uncertainty and deepening the crisis.[21] Such situations and conditions of confusion and chaos were cited in the constituent assembly to impose president's rule.

Moreover, going by section 93 of the Government of India Act, which inspired Article 356, was indeed introduced with a purpose to establishing an authority strong enough to balance conflicting interests and protect those unable to defend themselves to ensure peace and tranquility. These measures are particularly crucial in Manipur, where ongoing conflicts between the Kukis and Meiteis have left ordinary people from both communities, specially women and children, vulnerable to attacks by armed groups from the opposing side.

Even notable journalists have advocated that Central intervention is crucial due to the state government's failure to manage conflict in Manipur. They argued that polarization and distrust, even in Central forces, highlight the

[20] Padmakshi Sharma, *Absolute Breakdown of the State Machinery State in Manipur: Supreme Court Slams Manipur Police; Asks DGP to Personally Appear*, *LiveLaw* (Aug. 1, 2023, 8:00 AM).
[21] A Lakshman, *Why Has the CM of Manipur Not Yet Sacked, Asks MP-Elect B.Akoijam*, *The Hindu* (June 10, 2024, 9:00 AM).

need for extraordinary measures and parliament must act to mitigate the situation, focusing on repairing the torn social fabric rather than just enforcing law and order.[22]

Apart from disruption of law and order, the violence in Manipur has having a spillover effect in other north eastern states like Mizoram and Nagaland leading to a threat to national integration or state security, including support for separatist movements,[23] a criterion opined by Reddy and Agrawal JJ in the case of *S.R. Bomnai*[24].

All these events signify a constitutional failure and breakdown of law and order which the government of the state is unable to control, imperative for the union government to impose president's rule and take direct control over the situation.

Such demands were even raised in the Parliament session after the 18th Lok Sabha elections. The Prime Minister, in response to those demands, stated that the government has been making every effort to restore the piece in the region.[25] In previous instance too, in response to inquiries about the absence of Article 356 imposition in Manipur, Union Home Minister Amit Shah defended Chief Minister N. Biren Singh in Parliament, citing his cooperation with the Centre.[26]

However, this stance drew severe criticism, particularly from the Director of Human Rights Alert, who condemned the state government's handling of the crisis. They argued that the failure to address law and order issues worsened the situation, and government's response oversimplified the matters, aggravating tensions. Critically, the Director emphasized that retaining Chief

[22] "News9, *Manipur | Should President's Rule Imposed in the State?* (July 20, 2023, 9:00 AM)."
[23] Morungg Express, *Aftershocks of Manipur Violence Felt Across NE States* (Dec. 20, 2023, 10:00 AM), *Morunfg Express*.
[24] See *supra* note 18.
[25] A Rehman, *Opposition in Manipur Urges PM Modi Rise Above Politics*, *Indian Expres* (July 3, 2024, 9:00 AM).
[26] Nistula Hebbar & Sreeparna Chakrabarty, *Shah Appeals Peace in the state of Manipur, Backs the Chief Minister*, *The Hindu* (Aug. 10, 2023, 7:18 AM IST).

Minister Biren Singh, against whom there has been allegations of biasness, will obstruct the reconciliation and progress.[27]

With respect to this, it is also worth noting that imposition of Article of 356 is not just merely dependent of cooperation of State government in the time of crisis, but also on the situation of large-scale disruption of law and order along with the inability of the State government to handle it, as identified in Sarkaria Commission.[28] Such instances can be seen in the previous cases of imposition of President's rule in Punjab and Kashmir during 1983 and 1990 respectively.

In 1983, Punjab was experiencing escalating insurgency driven by the Khalistan movement. Militant groups, led by figures like Jarnail Singh Bhindranwale, intensified violent activities, targeting government officials, civilians, and law enforcement. The situation worsened as communal tensions grew, leading to increased clashes between extremists and security forces. The Punjab government, struggling to control the law-and-order situation, saw President's Rule imposed in October 1983.[29]

Additionally, in 1990, the insurgency in Kashmir escalated dramatically, driven by separatist movements and Pakistan-backed militant groups seeking to challenge Indian rule. The year saw a surge in violence, including attacks on security forces, political figures, and civilians, particularly targeting the minority Kashmiri Pandit community. As tensions peaked, the Indian government-imposed President's Rule and deployed the army to curb militancy due to inability of the State government to control the situation. Amid curfews, crackdowns, and encounters, the insurgency deepened, leading to a prolonged conflict between militants and Indian security forces.[30]

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[27] K Thapar, *Watch: 'Amit Shah's Lok Sabha Speech had Made Things Worse in the state of Manipur, Irresponsible for Not Removing Biren'* (9:00 AM).
[28] See *supra* note 17.
[29] Gus Martin, *The SAGE Encyclopedia of Terroresm*, Second Edition, 544 (SAGE Publications 2011).
[30] A Evans, *A Departure History: Kashmiri Pandits, 1990-2001*, 19-37 (2010, July 1).

Both these cases show similarities with the situation in Manipur with events like large scale communal violence, attack on law enforcing bodies, mass killings, inability of the State government to control the situation, refugee problem and humanity crisis, instances which amounts to physical breakdown.

Another argument given against the imposition of Presidents rule is that there is already an imposition of Article 355 in Manipur giving enough power to Centre to control the situation. But it should be noted here that, as argued in the Constituent Assembly, Article 355 was added to the Indian Constitution to provide a legal basis for invoking Article 356, allowing the Union government to declare President's Rule in a state. It has never been implemented without Article 356 being invoked.[31] Both these provisions are considered essential part of each other.[32]

Moreover, there also been a voice raised in support of AFSPA as an alternative use of the president's rule. There has also been a recent re-imposition of AFSPA in five districts of Manipur. But the problem with AFSPA is that blatantly allows the military to use force, including lethal measures, against individuals violating the law or possessing arms and ammunition. It also grants powers to arrest without warrants and conduct searches based on "reasonable suspicion", a term not conclusively defined.

Legal action against the armed forces personnel requires prior approval of the central government. The immunity and excessive power granted have already led to several controversies within the state, such as the Malom massacre and allegations of fake encounters, rapes, and biased imposition only in selected areas with particular ethnicities. Moreover, the imposition of such authority fosters even greater distrust and resentment among the already disgruntled public, particularly in a situation where rebuilding trust and fostering reconciliation are of utmost importance.[33]

[31] The Wire, *Chief Minister Confirms the Imposition of Article 355 in the state, Draws Flak Over Secrecy* (Jan. 23, 2024, 10:00 AM).
[32] *Sarkaria Commission Report on Centre-State Relations*, ch. VI, at 7 (1983).
[33] D Tiwary, *Imphal Valey Protests: Will AFSPA and Giving Army A Free Hand Help?*, *The Indian Expres* (Nov. 18, 2024, 9:00 AM).

Hence, the situation in Manipur, marked by ethnic violence, administrative collapse, and a breakdown of constitutional machinery, justifies invoking Article 356. Existing measures like Article 355 and AFSPA have proven inadequate, often deepening distrust where Central intervention is imperative to restore order, rebuild trust, and uphold constitutional governance.

V. STRENGTHENING CONSTITUTIONAL ACCOUNTABILITY: REVISITING USE OF PRESIDENT'S RULE IN INDIA

From the given circumstances we can see that there is a dire a need of president's rule in Manipur but still the Centre government is reluctant in imposing it. The political reasons for this reluctance, as per the opposition, is that if there is an imposition of President's Rule in Manipur, where the BJP holds power both at the state and central levels, it would deal a significant blow to its "Double Engine Government" slogan.[34] Additionally, public discontent, evident from BJP losing both state seats in the 18th general elections, will also pose challenges for the Biren Singh government ahead of the polls if his government gets dissolved due to the imposition.[35] The constitutional basis for this reluctance stems from the broad discretionary power granted to the Central Government in imposing President's Rule in states. The Constitution lacks concrete guidelines specifying the exact circumstances under which such intervention should occur. This ambiguity effectively provides the Central Government with significant flexibility, including the discretion to refrain from imposing President's Rule even in critical situations. As a result, the absence of clear guiding provisions, coupled with the Centre's wide-ranging discretion, often leads to delays in addressing crises, such as the ongoing unrest in Manipur.

As a result, there has been no imposition of President's Rule, leading to an escalation in deaths, violations of human rights, property damage, and

[34] M Kharge, *BJP's 'Double Engine' Govt had Dealt Blows to the Manipuris*, *Econmic Times* (Feb. 5, 2024, 9:00 AM).
[35] Indian Expres, *Manipur Lok Sabha Election Result 2024 Live*, *Indian Exprss* (July 12, 2024, 9:00 AM).

increasing mistrust among the people. The absence of timely intervention exacerbates the ongoing crisis, deepening the socio-political and humanitarian crisis in the region.

To prevent similar situations in the future, the authors propose that amendments should be made in the Constitution to include specific guidelines when the presidential rule shall be imposed to provide more clarity. Clear criteria would also ensure a fair and consistent application of the provision. These guidelines can be drawn from the recommendations of the Sarkaria Commission[36] and the principles laid down in the *S.R. Bommai* case[37], which outlined conditions for imposing President's Rule based on the failure of the existing constitutional machinery.

Once incorporated into the Constitution, these guidelines could serve as a reference when judicial review can be used to determine the validity of the step taken as upheld in *State of Rajasthan vs. Union of India*. [38] This power of judicial review can be guided by the criteria of whether the action taken are unjustified or motivated by malice as upheld in the case of *Minreva Mills vs. Union of India*[39] and *Makhan Singh vs. State of Punjab*.[40] This framework could empower the judiciary to direct the Central Government for imposing President's Rule when it is convinced of a pressing need while also ensuring that such intervention is not driven by political considerations. By striking this balance, it would prevent both undue delays and arbitrary actions during crises, thereby safeguarding the integrity of the federal structure and promoting responsible governance.

Furthermore, the authors propose, consultation regarding both the imposition and non-imposition of President's Rule could be sought from an Inter-Governmental Council established under Article 263 of the

[36] See *supra* note 17.
[37] See *supra* note 18.
[38] State of Rajasthan vs. Union of India, (1977) 3 SCC 592.
[39] Minerva Mills vs. Union of India, (1980) 3 SCC 635
[40] Makhan S. Tarsikka v. State of Punjab, (1964) 4 SCR 798.

Constitution of India.[41] While the Council serves as a forum for discussion between the Centre and States, making consultation mandatory, though not binding, before taking actions could help ensure a more comprehensive and informed decision-making process. Such a mechanism would involve dialogue between the Centre and State governments, ensuring that the act is not solely based on the discretion of the central government but is subject to some level of inter-governmental oversight. Reports from these consultations should be disclosed to Parliament for discussion and made widely accessible to the public through multiple channels. This includes publication on the official government website, dissemination via national and regional media, and regular press briefings by government officials. These reports can further be subjected to independent policy institutions, and regional civil society organizations which can further enhance scrutiny and provide diverse perspectives. Public oversight can be ensured through periodic reports on the implementation and impact of President's Rule. Transparency can also be strengthened through real-time data updates on the crisis, intervention measures, and the status of President's Rule, enabling evidence-based decision-making. Additionally, making these reports available in multiple languages and formats such as official gazettes and public archives would significantly improve accessibility. Together, these measures would foster accountability, strengthen public trust, and ensure informed decision-making in managing state-level crises. Here, the rationale for not making the consultation binding lies in the recognition that issues of national importance and integrity, particularly those involving the stability of governance, should ultimately rest with the central government only. The imposition of President's Rule often addresses matters of grave significance, such as the breakdown of the law and order or the protection of national security, areas where the central government's direct involvement is crucial.

However, making consultation verdicts binding could add complexity to an already intricate process, particularly given the dynamics of regional and

[41] *Constitution of India*, art. 263 (1950).

coalition governments, whose interests may diverge from those of the Centre. This could result in delays or even political gridlock.

At the same time, as the judiciary retains the authority for limited judicial review, reports from the Inter-State Council, alongside official government reports and assessments detailing the volatility of the situation, could serve as valuable tools in scrutinizing decisions regarding the imposition of President's Rule.

Such a comprehensive framework would enhance transparency, accountability, and judicial oversight, ensuring that President's Rule is applied in a balanced manner, preventing both overreach and undue delays in its implementation.

VI. CONCLUDING REMARKS

"Justice and peace can only thrive together, never apart." – Oscar Arias[42]

The situation in Manipur underscores the delicate balance between maintaining constitutional integrity and addressing the complex governance challenges posed by grave and violent circumstances. The state's inability to manage the escalating crisis effectively has led to a need for a closer examination of constitutional provisions, giving discretionary power to central government, particularly Article 356, which has been invoked to impose President's Rule. Despite reluctance for tits use, the gravity of the situation demands its imposition, yet concerns about the potential misuse of this presidential power for political purposes remain. This highlights the urgent need for clear guidelines and accountability mechanisms to prevent any delay or overreach. However, restoring stability requires a coordinated effort beyond just President's rule. Several immediate steps must be taken to prevent further unrest and protect vulnerable communities.

[42] Arias Sánchez, O. (1987, December 10). Acceptance Speech. Nobel Peace Prize Acceptance Speech. Oslo, Norway.

One of the most pressing concerns is curbing misinformation, which has fueled tensions and encourage enmity and violence between the two groups. Strict monitoring, fact-checking, and swift action against fake news are essential to prevent further provocation and ensure a more measured response to control the crisis. Equally important is protecting community settlements, as many areas remain highly vulnerable. Increased security deployment, temporary shelters, and quick-response teams can help prevent displacement and provide immediate relief to affected populations. Proper basic amenities shall be continuously provided to displaced people living in camps.

Another critical step is controlling the illegal flow and acquisition of arms, which continues to fuel the conflict. Strengthening border security, cracking down on smuggling networks, and enforcing firearm regulations are necessary to curb the unchecked circulation of weapons.

While these short-term interventions can stabilize the situation, restoring overall peace and tranquility in the state requires more than just political and military interventions; it demands a long-term holistic approach that focuses on rebuilding trust, fostering inclusivity, and delivering justice to the victims of violence.

Several critical long-term measures are necessary to initiate the reconciliation process and lay a strong foundation for long-term peace and prosperity in Manipur. To begin with, the Suspension of Operations ("SoO") agreement with hilly tribal militias must be reviewed and reinforced, as it has the potential to restore lost trust and create an environment conducive to initiate dialogue for peace. This agreement, once carefully re-evaluated, can help bridge the divide between various communities, fostering a sense of security and stability.[43]

Illegal immigration from neighboring countries like Myanmar and Bangladesh along with unauthorized encroachments, particularly in

[43] Prawesh Lama, *Suspending the Operations Agreement with the Kuki Militant Groups in Manipur*, *Hindustan Times* (Feb. 29, 2024, 12:48 PM IST).

ethnically sensitive areas, must be addressed with urgency. These issues have not only fueled conflicts but have also deepened mistrust among the communities. Immediate steps should be taken to halt further illegal encroachments and to remove the ones that have already taken place.

To do so, a clear and transparent policy must be established with strict enforcement mechanisms, preferably by a separate department established specifically to handle such issues of immigration and encroachment. Records such as birth certificates, land registration documents, and electoral rolls should be used to identify and evict illegal immigrants. These records must also serve as the basis for screening future citizenship applications, ensuring only eligible individuals are granted legal status under stringent guidelines. Proper registrar records should be maintained for accuracy and accountability. Regular renewal and updating of records must be mandated to keep information accurate and up to date.

Illegal poppy cultivation in the region also remains a pressing concern with the continuous government crackdown on them leading to resentment among the hilly tribal population. Beyond targeting production, stringent control over the market, buyers, and sponsors of illicit poppy products should be taken. Equally important is fostering awareness about its devastating effects among the population. To provide sustainable alternatives for impoverished tribal communities reliant on such poppy farming, efforts should focus on economic diversification. Encouraging and promoting traditional handicraft production and using their skills in forest conservation, can generate viable livelihoods. Additionally, homestay tourism can offer economic stability while preserving cultural and natural heritage.

Agricultural diversification, including the cultivation of fruits, spices, bamboos and medicinal plants, should be incentivized to reduce dependence on illicit crops. A holistic strategy integrating law enforcement with socio-economic upliftment will ensure long-term success in curbing illegal

cultivation while empowering tribal communities with sustainable livelihood opportunities.

Another vital step involves considering the establishment of Autonomous District Councils (ADCs') in Kuki-dominated areas, similar to those in Khasi regions.[44] The creation of ADCs would provide the Kuki community with a platform to have a say in the administration of their own regions, empowering them to manage local affairs, such as cultural preservation, education, and economic development.

This would address their grievances, reduce marginalization, and foster a sense of inclusion. At the same time, the establishment of ADCs would ensure the unity and integrity of the state by allowing the central or state government to retain control over matters like security and broader policies. This structure would create a balance between local autonomy and state cohesion, fostering cooperation among communities and maintaining the integrity of Manipur. Such steps are crucial for ensuring lasting peace, harmony, and prosperity in Manipur.

These measures, combined with a broader commitment to peacebuilding that actively considers the opinions and concerns of all affected communities, are essential for fostering lasting stability in Manipur. Furthermore, it is crucial to conduct thorough investigations and expedite trials, not only to punish perpetrators but also to ensure that justice is delivered to the victims. True peace cannot be achieved without justice, as merely removing the immediate cause of violence does not equate to long-term stability.

For Manipur to overcome its current challenges and realize its full potential, a comprehensive approach involving dialogue, reconciliation, and meaningful engagement is required. Only through concerted efforts from all stakeholder's government, communities, and constitutional bodies can the region move beyond its history of conflict and emerge as a peaceful,

[44] *Functioning of the Autonomous District Council at Meghalaya, India*, World Bank (2017).

inclusive, and vibrant society within the framework of India's constitutional democracy. This is the only path to lasting peace, where justice prevails and the principles of the constitution form the unshakable foundation for a brighter, more harmonious future.

DECODING THE CONVERGENCE AND DIVERGENCE IN AI PATENTABILITY: AN ANALYTICAL COMPARISON BETWEEN INDIA AND GLOBAL LEGAL REGIMES

S. Hariharan*
Gokulnath Shanmugam**

ABSTRACT

The upsurge adoption of AI has raised seminal concerns and challenges over the relationship between AI and intellectual property across the globe and these issues are now also bracing in India. Patents foster and protect innovations and allows the inventor to commercially exploit the invention. However, the patentability of AI-driven inventions poses a unique challenge; neither there is a sui generis regime that deals with the patentability of AI-driven inventions nor does the current intellectual property jurisprudence provide guidelines for the same. This article attempts to evaluate and assess the AI-driven innovation in lights of section 3(k) of the Indian patents Act. This article tries to understand the difference between AI-assisted inventions and AI-generated inventions. The article attempts to shed light on whether the AI-assisted inventions can be classified under computer-related inventions by analyzing the nuances of CRI guidelines. This article examines the USPTO's inventorship guidelines for AI-assisted inventions and assesses their relevance to the Indian context. It also evaluates the European Patent Office's guidelines for examining AI-related inventions. This paper offers succinct outline to

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whether the AI-driven inventions could fulfil the patent disclosure requirements.

Keywords: *Sui Generis, Inventions, AI-assisted, AI-generated, Patent Disclosure.*

I. INTRODUCTION

Artificial intelligence (AI) has made great strides in recent times, especially in terms of actualization which has triggered interest in topics of patent law in particular, intense discussion surrounding it. It is not cynical to say that this characteristics patent law around the world has almost become an axiom; as new technology and IT systems are developed, they will contribute to the creativity process. This is raising a very important question as to whether or not one can patent an invention created by AI systems. In the past, humans have maintained patents for new and non-obvious inventions, but the invention space of AI brings a new challenge to this system. This article gives an overview of the changing trends on inventors and their inventions powered by AI; key policy, legal and moral issues associated with the inventiveness of the devices that dictate authorship, ownership of patents and the throwing of the patenting net in a world dominated by AI. Normally patentable AI exists in autonomous driving, voice recognition, drug discovery, translation etc[1]. The innovations make use of machine learning (ML) techniques that allow AI tools to learn and carry out the necessary functions[2]. These techniques automatically recognize and learn patterns from large datasets, known as training data, and use these patterns to complete specific tasks. The patent laws across various countries clearly state that for an invention to be granted a patent, it must meet the criteria of novelty, involve an inventive step, and be non-obvious to person skilled in the

[1] *The story of Artificial Intelligence in Patents* (no date) *technology-trends*. Available at: https://www.wipo.int/web/technology-trends/artificial_intelligence/story (Accessed: 06 November 2024).

[2] Chauhan, S.S. (2023) *India: Patent eligibility of AI-related inventions*, *MIP*. Available at: https://www.managingip.com/article/2c8q22uq5bhkzgreo35s0/sponsored-content/india-patent-eligibility-of-ai-related-inventions (Accessed: 06 November 2024).

relevant art. This article explores whether these essential characteristics also apply to AI-based inventions. Secondly, it highlights the distinction between AI-assisted and AI-generated inventions and examines whether AI qualifies as an inventor. Thirdly, it addresses whether AI inventions fall within the scope of Section 3(k) of the Indian Patents Act[3]. Fourthly, the article discusses whether adequate disclosure guidelines are followed for AI-based inventions. Lastly, it provides a comparative analysis of the current approaches to AI inventions in the US and Europe.

II. AI ASSISTED OR AI GENERATED INVENTION

There has been no concrete or clear technical definition of autonomous invention, until the WIPO draft issues paper recently recognised that "inventions can be autonomously generated by AI"[4]. The World Economic Forum's white paper suggests that AI is now doing more than simply processing data; it is creating works that have traditionally been regarded as "creative" or requiring human innovation[5]. However, the paper relies solely on legal references rather than citing any technical literature[6]. AI invention in abstract could mean either Ai-assisted inventions or AI-generated inventions which are totally created by AI with minimal or no human interventions. AI assisted inventions are inventions that employ AI techniques to carry out certain tasks. In many cases, the novelty is in applying AI to accomplish a technological goal rather than in the AI tools themselves. Facial recognition, language processing, and drug discovery are a few examples[7]. The AI generated invention on the other hand are innovations or solutions that are generated by AI systems without any human involvement. A famous instance is DABUS, an AI system developed by Dr. Stephen Thaler. DABUS attracted significant attention in patent law

[3] Section 3(k), The Patents Act, 1970
[4] 'WIPO Conversation on IP' (n 2) 3.
[5] ibid
[6] USPTO (n 6) para 1.
[7] Chauhan, S.S. (2023) *India: Patent eligibility of AI-related inventions*, *MIP*. Available at: https://www.managingip.com/article/2c8q22uq5bhkzgreo35s0/sponsored-content/india-patent-eligibility-of-ai-related-inventions (Accessed: 06 November 2024).

discussions because it was specifically designed to independently create inventions without human input. The key line of difference between the two is that AI assisted invention are primarily created by the human and used AI incidental to human creation whereas AI generated inventions are autonomous invention done with no human intervention. In drug discovery and development, if machine learning is used in the process, the AI technique itself would not be considered part of the final drug invention. The document further explains that a natural person can still contribute to the creation of an invention by designing or adjusting the algorithm, organizing the data it processes, and running the algorithm to obtain results. According to the USPTO, even inventions created 'by AI' can involve human input. This raises an important question about how to distinguish between inventions developed by AI and those shaped by human involvement[8].

The article attempts to provide a suggestion as to key factors that should be taken into account before pursuing patent for AI inventions are:

a. Assessing the significance of human involvement in terms of the quality, expertise, and amount of input provided.

b. Evaluating how human input influences the AI-generated outcome, specifically the invention itself.

c. Measuring the level of predictability and control humans have over the AI's output.

d. Considering the intellectual effort behind human contributions, such as defining the problem and applying prior knowledge and technical skills.

III. INVENTORSHIP OF AI

The most important question that arises when considering whether AI can hold a valid patent is whether AI can be considered an applicant under

[8] USPTO (n 6) para 2.

Section 6 of the Patents Act[9]. "AI is not a single piece of hardware or software, but rather a constellation if technologies that gives a computer system the ability to solve problems and to perform task that would otherwise require human intelligence"[10]. There is no clear definition for artificial intelligence but rather it could mean to be any ability particularly intellectual which is developed artificially. Simple AI could easily be understood as a combination of machine and software. Section 2(1)(s)[11] specifies that only natural persons or government organizations can apply for patents. However, the definition is not restrictive; it may also include anyone who is considered the true and first inventor of the invention as a "person" on whose behalf a patent application is filed. An inventor is defined by US law as a person who either invented or discovered the subject matter of an invention[12]. In the case of *Diamond v. Chakrabarty*[13], which broadened the criteria for patentable subject matter in the U.S., the court noted that "anything under the sun that is made by man is patentable." This perspective was adopted to ensure that inventions are retained by the individual who actually conceived them, rather than being controlled by a legal entity such as a corporation, since it is individuals who generate ideas, not companies[14]. In *Townsend v. Smith*[15], "conception" was described as the process by which an inventor develops a clear and enduring idea of the complete and functional invention as it will be utilized in practice. An invention should reflect a moment of creative genius, rather than simply demonstrating technical skill. Such innovative ideas can only emerge from human minds. Nonetheless, U.S. patent law was revised in 1952, eliminating the requirement for a mental act by incorporating the statement in "Patentability shall not be negated by the manner in which the invention was made." This

[9] Section 6, The Patents Act, 1970
[10] National Security Commission on Artificial Intelligence (NSCAI), Interim Report 8 (Nov. 2019), https://www.nscai.gov/wp-content/uploads/2021/01/NSCAI-Interim-Report-for-Congress_201911.pdf.
[11] Section 2(1)(s), The Patents Act, 1970
[12] 35 USC§100(f).
[13] 9447 U.S. (1980).
[14] New Idea Farm Equip. Corp. v. Sperry Corp. 916 F.2d 1561,1566 (1990).
[15] 36 F.2d 292,295 (1929)

amendment clarified that the emphasis should be on the contributions to science or useful arts brought about by the invention, rather than the inventor's thought processes[16]. The Ayyangar Committee Report of 1959 outlines the legislative purpose behind the Patent Act, highlighting the importance of recognizing inventors' rights. It asserts that individuals with moral claims to be named as inventors should be acknowledged, even if they lack full legal rights over the invention. The report suggests that involving inventors in discussions about their creations can enhance their financial entitlements, regardless of any exclusive rights they may have relinquished through agreements. However, AI cannot benefit from these provisions or claim moral rights under current Indian laws, nor can it enforce such rights against misuse[17]. The AI-generated innovation DABUS was recently denied a patent in India by the Controller General of Patents, citing objections under Sections 2 and 6 of the Patents Act, 1970. The assessment made clear that DABUS does not meet the formal and technical review standards since it is not recognised as a legal person. The case of *V.B Mohammed Ibrahim v. Schafranek*[18] was used in support of this as in this case it was held that only a natural person can claim over inventorship of invention if he has contributed his skill to the invention. The applicant responded by stating that DABUS was identified as the genuine inventor in the application, it should be recognised as such. The applicant further emphasised that the definition of inventorship usually refers to natural persons in order to avoid corporate claims to innovations. The petitioner argued that even if no natural person satisfies the requirements for inventorship, AI's contributions shouldn't bar it from having patents. In support of the argument the case of In *Som Prakash Rekhi v. Union of India*[19] was cited, a legal definition of "person" was established. The decision implied that a legal entity with rights and obligations had to be acknowledged. Since AI is unable to exercise these rights on its own, it cannot be considered a legal entity for the purposes of patent law.

[16] 35 U.S.C. 103
[17] Shri Justice N. Rajagopala Ayyangar, Report on the revision of the patents law, 1989.
[18] AIR 1960 Mysore 173
[19] 1980 AIR 1981 SC 212

Recently, a Brazilian congress member introduced a bill to amend Brazilian patent law to, among other things, explicitly allow patent protection of AI-generated inventions by statute. Currently, Brazilian patent law does not allow AI to be named as inventors, and the Brazilian Patent and Trademark Office (BPTO) requires human inventors for patent applications. If passed, the bill would address gaps in the law[20].

Three resolutions pertaining to the ethical framework for AI, civil culpability for damages caused by AI, and intellectual property rights for works generated by or with aid from AI were voted by the European Parliament in October 2020. In order to minimise fragmentation of the European digital market, the Parliament advocated the construction of a fully harmonised legal framework for AI technology, recommending that future laws be issued as regulations rather than directives. It further stressed that giving artificial intelligence (AI) technology legal personality would be improper because it would undermine incentives for the human creators. The Parliament further emphasised that obtaining a thorough description of the underlying technology of an innovation is a major obstacle to patent protection for artificial intelligence (AI)-generated patents[21].

III. (A) Novelty in AI inventions

Novelty is a very important threshold for granting patent to the application. An invention which is known publicly or which was published before the claimed invention would be part of prior art thereby denying patent. It is expected that a patent applicant is aware of prior art that is pertinent to their invention, including when determining whether it is non-obvious[22]. But the

[20] (2024) Brazilian lawmaker introduces bill to allow AI as inventor, IPWatchdog.com | Patents & Intellectual Property Law. Available at: https://ipwatchdog.com/2024/02/29/brazilian-lawmaker-introduces-bill-allow-ai-inventor/id=173809/#:~:text=Bill%20%23303%2F2024%20proposes%20the,the%20artificial%20intelligence%20system%20that (Accessed: 10 November 2024).

[21] Vagelis Papakonstantinou and Paul de Hert (2021a) *Legal personality to ai/ : Why the European Parliament got it wrong*, *MIAI*. Available at: https://ai-regulation.com/refusing-to-award-legal-personality-to-ai-why-the-european-parliament-got-it-wrong/ (Accessed: 10 November 2024).

[22] Custom accessories vs Jeffrey Allen industries F.2d. 955,962 (1986).

sheer volume of data produced by AI is simply too great for any one person to go through in their lifetime. Restricting the applicant's necessary knowledge to prior art in their particular field helps to mitigate this difficulty. Even still, the amount of information is still enormous, making it challenging to sort through and carefully consider all relevant aspects[23].

The enormous volume of data produced by AI, particularly in light of its internet connectivity, contributes significantly to online clutter by combining important and unimportant information. This makes it difficult to identify pertinent prior art. Defensive publications, in which organisations openly reveal discoveries as prior art to stop rivals from patenting the same concepts, may rise as a result of this inflow, forcing rivals to reduce the scope of their claims and raising the bar for patent acquisition. Reducing this bar could be detrimental to society since it would permit patents on information that is already publicly available, which would go against fundamental ideas of patent law. However, considering that AI draws from a variety of knowledge domains, it is unreasonable to expect a single person to be knowledgeable about every aspect of their innovation[24].

III. (B) Inventive Step in AI Inventions

Inventive step according to Patents Act is "a feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art".[25] The term was further explained in the case of *Bishwanath Prasad Radhey Shyam v. Hindustan Metal Industries*[26] and in other foreign rulings, the court defined the "skilled person" as someone actively engaged in the relevant field, who works within the same industry as the invention, holds a standard level of knowledge and competence, and is

[23] 5Ben Hatten bach & Joshua Glucoft, Patents In An Era Of Infinite Monkeys and Artificial Intelligence, 19 STAN. TECH. L. REV. 32, 40 (2015).
[24] 5Ben Hatten bach & Joshua Glucoft, Patents In An Era Of Infinite Monkeys and Artificial Intelligence, 19 STAN. TECH. L. REV. 32, 40 (2015).
[25] Section 2(1)(ja), The Patents Act, 1970.
[26] AIR 1982 SC 1444.

informed about the commonly known information at the relevant time. The current law doesn't account for whether the invention was created by a human using AI tools or was developed entirely autonomously by AI. Instead, it focuses only on whether the invention appears obvious in light of prior knowledge within the relevant field. Additionally, the term inventor is also not explicitly defined anywhere but just says that true and first inventor and assignee to file application for patents.

The court in the case of *Mohammed Ibrahim V. Alfred Schafranek*[27] laid down that the inventor must be a natural person who provided any technical contribution and by parallelly reading the judgement given in the case of *National institute of Virology V. Vandana S Bhide*[28] A individual must intellectually contribute to the research findings that result in a patent in order to be recognised as an inventor, according to the IPO's ruling that hired workers cannot be regarded as inventors. Consequently, it is clear that none of these cases took into account the potential for inventorship by a third kind of creature, like an artificial one. The Controller General of Patents recently objected against the AI generated invention DABUS by Stephen Thaler. The examination report cited Sections 2 and 6 of the Patents Act, 1970, indicating that the application failed to meet formal and technical requirements since DABUS is not recognized as a "person" under the Act.

III. (C) Liability Concern

The increasing usage and autonomy of AI in creating inventions have raised serious liability issues, particularly for patent infringement. It is clear for perusal of current laws that AI is not recognised "person" in India and liability will fall on humans that are involved like developers and owner, despite having only very minimal control over the AI's independent actions. A possible solution to cure this problem is applying the Absolute liability principle. Making the owner absolutely liable for the infringement made by

[27] *AIR 1960 Mysore 173.*
[28] *National Institute of Virology v Vandana S Bhide,* Pre-grant Opposition before the Controller of Patents in the matter of Patent Application 581 /BOM/ 1999.

the AI is a viable option to solve the problem but this strategy makes accountability clear, the increased risk may deter investment in AI research and development, thereby limiting innovation in this game-changing area.

The European Parliament has suggested a more refined approach to AI liability, recommending that responsibility should run in congruence to the degree of human guidance, training, and predictability involved in the AI's actions. For instance, in cases of high AI autonomy, the owner's liability should correlate with the level of their input. A clear classification was made in the AI act. Additionally, the Parliament proposed an insurance scheme to cover instances where AI operates without human intervention and noted that AI may eventually require its own legal personality to be held accountable. This complex issue highlights that traditional liability rules may not adequately address the challenges posed by autonomous AI, as they fail to clearly assign responsibility for compensation when AI independently infringes on a patent.[29]

III. (D) Patentability of Computer Related Inventions and AI Invention

AI systems function through software code that guides actions, decisions, and outputs using predefined conditions. When these commands are combined into a program, the AI can independently generate outputs with new data input. Patent applications for computer-related inventions (CRIs) and AI must meet requirements of novelty, inventive step, and industrial applicability. Rather than defining "invention," the Indian Patent Office (IPO) specifies "non-inventions," or subjects excluded from patentability, as outlined under Sections 3(k) [30]of the Act states that "a mathematical or business method or a computer programme per se or algorithms" is not patentable. The granting of patents for computer generated inventions would be satisfied if the invention contains technical advancement and technical

[29] European Parliament, European parliament resolution on civil law rules on robotics adopted on 16 Feb 2017, EUROPEAN PARLIAMENT (Aug. 9, 2019, 7:32 PM), http://www.europarl.europa.eu/doceo/document/TA- 8 - 2017-0051_EN.html?redirect#title1.
[30] Section 3(k), The Patents Act, 1970.

effect. The court explained the terms in the case of *Ferid Allani V. Union of India*[31] in this case the petitioner is a Tunisian who filled application for "methods and device for accessing information sources and service on the web". The patent application was rejected due to the fact that the invention falls under the ambit of 3(k) of the acts and it lacks novelty. A computer related invention can nevertheless be patentable if it produces a technological effect or contribution. By demonstrating that the innovation improves a technical process, solves a technical problem, or offers some other technical advantage, the technical effect or contribution can be shown. An innovation is not always ineligible for patent protection just because it uses a mathematical or computer related technique. In order to be eligible for patent protection, the innovation can nevertheless meet the standards for patentability, such as the need for a technological impact or contribution. Stated differently, method claims in computer program patents may be eligible for patent protection if they incorporate a technological breakthrough, offer a technical solution to a technical issue, and improve the technical impact on the underlying software. This position was even further strengthened in the case of *Microsoft Technology Licensing, LLC Vs The Assistant Controller Of Patents And Designs*[32], where the court reinstated the rulings made in the case of Ferid Allani V. Union of India and again gave importance to the word "per say" in section 3(k) of the Act. The court also reinstated that all patent application concerning computer related invention must assess the application only after refering to section 3(k), CRI guidelines, judicial precedent and other materials that indicates the intention of legislature.

IV. COMPARATIVE ANALYSIS

United States: The term "invention" is not properly defined in the United States. According to Section 100 and 35 U.S.C., an invention is simply defined as "invention or discovery," and Section 101 goes one step further by

[31] W.P. (C) No. 7/2014
[32] 2023: DHC:3342

declaring that new and practical machines, processes, manufactures, compositions of matter, or any notable improvements to these are all considered patentable inventions. In theory, both human and artificial intelligence inventions can fall under this broad definition of patentable subject matter. The courts of the United States has recently in the case of *Diamond v. Chakrabarty*[33] held that "laws of nature, physical phenomena and abstract ideas" are denied patents. Further, if the subject matter contains inventive concept which is capable of transforming the said matters into patentable subject matters it can be granted patents.

Section 103 of the US Patent Act reads as follows "if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made".[34] The term "the art to which the claimed invention pertains" refers to related arts, meaning fields that are similar regardless of the specific issue being addressed, as well as arts from different fields that tackle the same problem or serve the same purpose. Non analogous art is not used in determining whether any invention is obvious or not obvious to person skilled in the art. The USPTO will determine whether an invention is non-obvious by way of a methodical investigation that includes evaluating the prior art's scope and content, comparing the claimed invention to the prior art, determining the level of ordinary skill in the relevant art, and taking into account secondary factors that can offer objective proof of non-obviousness, such as "commercial achievement, due for long but not solved needs, failure of others," which "may have relevancy" as "indicia of obviousness or non-obviousness[35]". The standard of ordinary skill in the applicable field is established by evaluating multiple factors, as identified by the Federal Circuit in the case *Environmental Designs, Ltd. v.*

[33] 447 US 303, 309 (1980)
[34] Section 103, US Patent Act
[35] Graham vs. John Deere, 383 U.S. 1 (1966).

Union Oil Co.[36] Key considerations include the speed at which new innovations are developed and the level of technological sophistication. It is the result of the inventive process that is assessed in the framework of the non-obviousness analysis, as the final sentence of Section 103 emphasises (saying that a patent cannot be cancelled owing to the way the invention was developed). This has been widely affirmed by US courts in various decisions. It can be argued that inventions created by an AI through random chance, or those resulting from a semi-automated process involving numerous trial-and-error experiments, should not be dismissed based on how they were developed. Nevertheless, certain court rulings have allowed for some leniency regarding the disqualification of patents based on the method of invention. The US Supreme Court in the case of *Mayo Collaborative Services v. Prometheus Laboratories, Inc*[37] listed "well defined, usual, typical activity, formerly carried out by researchers in the domain" as one of the grounds for invalidating a patent.In other words, even though Section 103 prohibited it, the Court concentrated on how the innovation had been applied. One could alternatively contend that the US lawmaker intends for the final sentence of Section 103 to reflect the various creative processes that humans, not machines, are capable of.

Europe: Article 56 of European patent convention states that an invention is regarded as having an inventive step if, considering the state of the art and the invention is not obvious to the person skilled in the relevant art. In Europe, the skilled person in the art is considered to be a practitioner with expertise in the relevant technological field, having an average level of knowledge and being familiar with the commonly known information in the field as of the specified date.[38] The pertinent technical area may include adjacent domains or a larger generic technical field (same or comparable issues occurred elsewhere, and if the expert in the subject should be aware of them). he person skilled in the art is assumed to have access to the standard

[36] Environmental Designs, Ltd. v. Union Oil Co, 713 F.2d 693 (1983).
[37] 566 U.S. 66 (2012), Docket no. 10-1150.
[38] EPO Guidelines, Part G – Chapter VII -1.

tools, resources, and ability to conduct routine work and experimentation typical for their particular field of technology. This means they are equipped with the practical skills and knowledge necessary to carry out conventional tasks or investigations relevant to their area. However, this hypothetical skilled person does not possess creativity or inventive imagination, meaning they are not expected to generate new ideas or think beyond established methods and concepts. Their role is limited to applying known techniques and approaches, rather than innovating or creating novel solutions.[39]

To evaluate the inventive step, the European Patent Office (EPO) employs what is known as the problem-solution approach, a structured method that includes three primary steps. First, the closest prior art is identified, serving as a baseline for comparison. Next, the specific technical problem that the invention aims to solve is defined objectively. Finally, the assessment considers whether the invention, when viewed from the perspective of the skilled person starting from the closest prior art and faced with the objective technical problem, would have been an obvious solution. Beyond these core steps, the EPO may also examine additional factors, known as secondary indicia, which can support the inventive step assessment. These may include evidence such as whether the invention meets a longstanding, unmet need or whether it has achieved commercial success directly attributable to its unique technical features. Such factors can further strengthen the case for the invention's non-obviousness by showing its practical impact or value in the relevant field.

V. CONCLUSION

it is clear that there are varied approaches in the global legal framework on AI patentability-each one designed to spur innovation while maintaining the strength of patent systems. India can learn from these international models as it builds a robust legal regime for AI-driven inventions by addressing the unique challenges thrown up by AI in the intellectual property space. The US

[39] EPO Guidelines, Part G – Chapter VII -1.

approach has profound insights, primarily on flexibility in interpretation under Section 101, which grants patents over any useful machine, process, or composition of matter with an inventive concept. The USPTO and the courts have stressed that the process of how an invention is created, whether by human or AI, should not in itself disqualify it from patent protection if it meets the novelty and non-obviousness standards. With this view, and with courts holding the technical contribution paramount over the method of invention, comes protection to AI-assisted innovation without sacrifice of inventive standards. The government may think of such flexibility that would allow it to broaden criteria so as to include AI-assisted inventions, so long as they meet fundamental requirements of novelty, inventive step, and technical contribution. The EPO, on the other hand uses a more structured approach which is problem-solution where the inventive step is defined relatively objectively on technical problems as well as their solutions. Secondary factors, such as whether an invention fulfills a long-standing need or achieves commercial success solely due to its unique technical attributes, may well work in India's favor, as it crafts its norms.

This structured approach gives clarity in the assessment of AI inventions by focusing on practical impact, making it easier to evaluate the technical contribution of an AI-generated invention without relying solely on the inventor's identity. Further, countries like Brazil and the European Union have begun to explore AI-specific provisions to address patentability and liability, underscoring the need for adaptability in patent laws. For example, the Brazilian draft that grants patent rights for inventions generated by AI shows an increasing awareness of the potential of AI to produce independent innovations. Similarly, the European Parliament proposes the creation of a single framework in which fragmentation would be removed from the digital market by implementing human involvement at critical stages in the innovation processes of AI to maintain moral standards.

These examples highlight the need for specific legislative amendments defining the role and limitations of AI in patent law. As per India's

framework under the Patents Act, the current sections 3(k) of the act have excluded mathematical methods and algorithms from being patented. This is challenging for inventions related to AI because normally these occur in such domains. However, cases like Ferid Allani v. Union of India have emphasized the "technical effect" in CRIs, ensuring even inventions comprising a computer program can obtain patent rights for their respective technological contribution to the domain. As has been illustrated above, a more modern form of CRIs can easily be drafted without violating Section 3(k) so that such artificial intelligence-based inventions having demonstrated technical impact or resolved unique technological issues are placed firmly within its ambit. India may further refine the definition of an "inventor" in the AI-assisted context to bring in human creators. It could consider mechanisms that attribute inventorship to persons who contribute towards development, operation or even configuration of AI. This can lead to the possible acknowledgement of human designers/developers who design an algorithm and organize a data set who fine-tune the output which comes from an AI can bestow invention title which would be a way through fostering cooperation between human intellectual activities and AI technology; Liabilities: This may pose a developing problem based on increased autonomy in AI use-complex questions about which subjects are liable for results gained in patent infringement outcomes for innovation.

The European Union's structure, that would propose liability based on levels of human intervention, could offer the balance model which India needs. Accountability, to match the levels of human control and predictability in AI-generated outputs, will safeguard both innovators as well as public interest through responsible AI usage without stalling technological progress. To cut it short, by synthesizing aspects from different global structures, India can create an innovative, forward-looking approach in law that is practical and ethical. A harmoniously balanced patentability regime of AI-driven inventions can move India to the forefront as a technological innovation leader in both domestic and international settings with confidence in its intellectual property laws.

VI. SUGGESTIONS

- Amending the Patents Act to Consider AI as a Person: India can explore the creation of a sui generis legal framework for recognizing AI's role in inventorship while preserving human oversight. A legislative amendment could introduce a "designated representative" concept where AI-generated inventions are attributed to the AI system, with legal accountability vested in its developer or owner. This approach balances innovation and liability while aligning with global trends like Brazil's draft legislation for AI inventorship.

- Adopting Guidelines Inspired by USPTO: India could develop AI-specific patent examination guidelines similar to USPTO's, focusing on AI-assisted innovations and technical contributions. For instance, codifying the distinction between AI-assisted and AI-generated inventions would clarify patentability standards. The guidelines can emphasize the role of human creators in designing algorithms, training datasets, and interpreting results, fostering innovation while maintaining compliance with Section 3(k).

- Incorporating EU AI Act Principles for Liability: Inspired by the EU AI Act, India can define liability for AI innovations through a graded approach. By assigning responsibility proportional to human intervention in the AI's development and deployment, liability can be fairly distributed. Proposals for mandatory insurance schemes to cover autonomous AI actions could also mitigate risks, ensuring responsible AI innovation while protecting stakeholders.

CASE COMMENT

HAMDARD NATIONAL FOUNDATION (INDIA) V. SADAR LABORATORIES PVT. LTD.

(2022, SCC ONLINE DEL, 4523).

Saumya Verma*

ABSTRACT

The case of 'Hamdard National Foundation (India) vs. Sadar laboratories Pvt. Ltd.', also known as 'ROOH AFZA vs. DIL AFZA', is a widely recognized illustration of the legal protection sought for certain phrases used as a registered trademark, which are commonly used in the market to refer to the particular product. An esteemed organization established in 1906 by Hakeem Abdul Hameed, the party involved in this case is the Hamdard National Foundation (India), which primarily aims to allocate business profits towards advancing the welfare of society. The Plaintiffs have been manufacturing and distributing non-alcoholic beverages, oils, syrups, and medicines rooted in the Unani and Ayurvedic traditions for nearly a century. The respondent, 'Sadar Laboratories Pvt. Ltd'., has a long history of manufacturing Unani medicines, syrups, and botanical products since 1949 through its ancestor, 'M/s. Sadar Dawakhana'.

Keywords: *'Rooh Afza', 'Dil Afza', 'Trademark Infringement', 'Dominant Mark Doctrine', 'Deceptively Similar'.*

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I. INTRODUCTION

A 'Trademark' is defined under Section 2(zb) of the Trademarks Act, 1999, as a mark that can be visually denoted and distinguishes the goods or services of one individual from others. This may involve the form of products, their packaging, and combinations of colours.[1] The lone requirement for a trademark is the ability to differentiate one's goods or services from another.[2] When considering national or regional trademark protection, individuals can pursue it by submitting an application for registration with the appropriate trademark office and covering the associated expenses.[3] Nevertheless, there are two choices on a global level. One method of safeguarding your trademark is by utilising the WIPO's Madrid System or by submitting a trademark application to the appropriate trademark authority in each country where you seek protection.[4] Trademark registration offers significant legal protection and fortifies the position of the registered proprietor in terms of execution. Trademarks lacking a unique characteristic are prohibited from being registered under Section 9.[5] This implies that trademarks can only be registered if they possess the capacity to differentiate an individual's products or services from others. Trademark registration is only granted to those marks that successfully fulfil the intent of trademark law, which is to effectively differentiate between products.[6]

Section 11 outlines the types of trademarks that are not allowed to be registered: Utilising trademarks can sometimes result in misunderstandings.[7] This relates to identical marks on similar products, as

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[1] The Trademarks Act, 1999, § 2(zb) (December 30, 1999).

[2] Wee Loon NG-Loy, *Trade Marks, Language and Culture: The Concept of Distinctiveness and Publici Juris*, SINGAPORE JOURNAL OF LEGAL STUDIES 508, 544 (2009).

[3] *How to Protect a Trademark?* WIPO (June 5, 2024), https://www.wipo.int/trademarks/en/protection.html.

[4] *Madrid System: Filing International Trademark Applications*, WIPO (JUNE 5, 2024), https://www.wipo.int/web/madrid-system/how_to/file/index ; *Trademarks*, WIPO (June 5, 2024), https://www.wipo.int/trademarks/en/.

[5] The Trademarks Act, 1999, § 9 (1) (December 30, 1999).

[6] Lisa P. Lukose, *Law of Trademarks in India with Introduction to Intellectual Property by Ashwani Kr. Bansal*, 49 JOURNAL OF THE INDIAN LAW INSTITUTE 102 (2007).

[7] The Trademarks Act, 1999, § 11 (December 30, 1999).

well as similar marks on similar or identical products.[8] The test is designed to assess the consumer's ability to distinguish between similar brands by considering the trademark as a whole. As an illustration, in the case of '*Societe Des Products vs. V.M. Confectionary Limited*', the court determined that the terms 'ZERO' and 'AERO' were deemed comparable.[9] This decision was made because it is difficult for individuals to differentiate between them based solely on their phonetic variations.[10] In simple terms, trademarks that are descriptive, lack distinctiveness, or have a high likelihood of causing confusion are not eligible for registration.

a) The ongoing dispute arose from the respondent's deceptive use of the phrase 'Dil Afza', which inaccurately portrayed their products as belonging to the plaintiffs. This action also violated the appellant's well-known trademarks 'Hamdard' and 'Rooh Afza'.[11]

b) The appellant claim that they have experienced considerable financial growth, earning Rs. 30983.57 lakhs in 2019–20 and Rs. 16, 281.41 lakhs in 2020–21. This has greatly enhanced their reputation and goodwill linked to 'Rooh Afza'. The plaintiffs made a substantial investment in advertising, as seen from their significant ad campaigns costing Rs. 459.10 lakhs in 2019–20 and Rs. 577.89 lakhs in 2020–21.[12]

c) The appellant has provided extensive information about the dates of the initial registration of trademark 'Rooh Afza' concerning these goods, with the earliest registration occurring on August 3, 1942.[13] The registration is still effective to this day. The appellant's '*sharbat*', known as 'Rooh Afza', has been sold in bottles for a century. It is recognised for its unique colour scheme, layout, set-up, and arrangement of elements, including a remarkable flower arrangement.[14]

[8] *Id.*
[9] Societe Des Produits vs V.M. Confectionery Limited and Ors., (2004) 29 PTC 508 (IPAB).
[10] *Id.*
[11] Hamdard National Foundation (India) v. Sadar laboratories Pvt. Ltd., (2022) SCC OnLine 4523 (Delhi High Court).
[12] *Id.*
[13] *Id.*
[14] *Id.*

II. ISSUES INVOLVED

a) Whether the respondent violated the appellant's trademark rights?

b) Would the respondent's trademark potentially cause confusion among consumers if applied to similar item?

c) Whether the court has the authority to give orders under Section 124(5) of the Trade Marks Act, 1999.

III. JUDGEMENT

The court overturned the ruling of the single judge bench by emphasising the resemblance in pronunciation between the marks 'Sharbat Rooh Afza' and 'Sharbat Dil Afza', as well as analysing their trade dress.[15] The court determined that Hamdard possesses a significant repute and goodwill linked with the 'Sharbat Rooh Afza' trademark. Allowing the defendant to persist in using the 'Sharbat Dil Afza' mark would grant them an unjust advantage.[16] The court determined that the 'Dil Afza' mark infringed upon the appellant's mark because it lacked enough dissimilarity and did not create a similar overall commercial impression as the 'Rooh Afza' mark.[17] The visual impact of the label, the trademarks of the two products, and the bottle design all contributed to conclusion that the marks were alike. The appellant was granted significant protection to the 'Rooh Afza' mark due to its established reputation and its role as a distinctive identifier for their product since 1907.[18] The Court overturned the Single Judge's order and determined that

[15] Namratha Murugeshan, *Rooh Afza v. Dil Afza Part II: Meaning Found in Trademark Protection*, SPICYIP (JUNE 5, 2024), https://spicyip.com/2023/01/rooh-afza-v-dil-afza-part-ii-meaning-found-in-trademark-protection.html.

[16] Kartikey Singh, *What Is the Delhi HC Verdict on 'Rooh Afza' Trademark?* THE HINDU (JUNE 5, 2024), https://www.thehindu.com/specials/text-and-context/explained-what-is-the-delhi-hc-verdict-on-rooh-afza-trademark/article66308463.ece.

[17] Chadha & Chadha Intellectual Property Law Firm, *Delhi High Court: Commercial Impression of the Mark "DIL AFZA" Is Deceptively Similar to the Well-Known Trade Mark "ROOH AFZA,"* LEXOLOGY (JUNE 5, 2024), https://www.lexology.com/library/detail.aspx?g=353268e0-6faa-4371-9052-44d2d137d0b7.

[18] '*ROOH AFZA has immense degree of goodwill, prima facie strong mark': Delhi HC in trademark infringement claim*, THE INDIAN EXPRESS (JUNE 5, 2024), https://indianexpress.com/article/cities/delhi/delhi-high-court-rooh-afza-trademark-infringement-case-8338129/.

previous interim order was final and would remain in effect until the lawsuit is resolved. In addition, the Court instructed the respondents to refrain from producing and selling any products under 'Class 32' using the disputed trademark 'DIL AFZA' until the lawsuit is resolved.[19]

IV. COMPARATIVE ANALYSIS WITH INTERNATIONAL TRADEMARK LAW

IV. (A) United States of America

The approach of Indian courts to trademark dilution exhibits parallels with the U.S. framework, yet it is characterized by unique applications and theoretical foundations. The U.S. legal framework transitioned from the Federal Trademark Dilution Act (FTDA) of 1995 to the Trademark Dilution Revision Act (TDRA) of 2006, which delineated two specific forms of dilution: blurring and tarnishment. U.S. courts establish a stringent standard for 'fame' under the TDRA, necessitating that a mark be 'widely recognised by the general consuming public' as identifying the goods of its owner. [20] The Indian court adopted a lenient approach to the 'well-known' status of 'ROOH AFZA', acknowledging its cultural significance and historical usage without necessitating extensive consumer surveys. This indicates a departure from the U.S. model, potentially facilitating enhanced protection for culturally significant marks within the Indian framework. U.S. courts are increasingly weighing trademark rights against First Amendment considerations, as exemplified in cases like *Mattel, Inc. v. MCA Records* and *Louis Vuitton Malletier SA v. Haute Diggity Dog, LLC*.[21] In present case, the Delhi High Court exhibited limited consideration for countervailing interests, prioritising the protection of the trademark owner's goodwill over potential implications for competition.

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[19] *Id.*

[20] Sandra L. Rierson^, *The Myth and Reality of Dilution*, 11(2) DUKE LAW & TECHNOLOGY REVIEW 212 (2012).

[21] Mattel, Inc. v. MCA Records, Inc. 296 F.3d 894 (9th Cir. 2002); Louis Vuitton Malletier S.A. v. Haute Diggity Dog, LLC is 507 F.3d 252 (2007), 4th Cir.

IV. (B) United Kingdom

Historically, UK courts have mandated substantial evidence demonstrating economic harm or alterations in consumer behaviour. In *Environmental Manufacturing LLP v OHIM* [2013], the Court of Justice of the European Union (CJEU) established that demonstrating a change in the economic behaviour of the average consumer is necessary to substantiate claims of trade mark dilution under Article 8(5) of the Community Trade Mark (CTM) Regulation (207/2009/EC).[22] The Delhi High Court in Hamdard assumed potential harm to the distinctiveness of 'ROOH AFZA' without necessitating Hamdard to prove actual economic impact, indicating a reduced evidentiary standard compared to that generally applied in UK courts. The notion of 'unfair advantage' in UK law refers to instances where a defendant seeks to exploit the reputation of a mark to gain benefits from its appeal without providing compensation. This was evident in '*L'Oréal v Bellure*'.[23] In contrast, the Indian court emphasised the structural similarity of the marks, neglecting a thorough examination of the transferred commercial advantage.

IV. (C) European Union

The EU framework offers a thorough structure for trademark dilution, supported by key cases that both align with and differ from the principles established in Hamdard. The 'Link' Requirement in *Intel Corporation v. CPM United Kingdom Ltd* (2008) determined that dilution claims necessitate evidence of the relevant public establishing a connection between the marks; however, this connection alone does not suffice to prove infringement.[24] The Delhi High Court in Hamdard examined various factors, including the similarity analysis between 'ROOH AFZA' and 'DIL AFZA', as

[22] ECJ sets aside General Court's decision for failure to follow Intel, WORLD TRADEMARK REVIEW (2013), https://www.worldtrademarkreview.com/article/ecj-sets-aside-general-courts-decision-failure-follow-intel (last visited Feb 27, 2025).
[23] Dev Gangjee & Robert Burrell, *Because You're Worth It: L'Oréal and the Prohibition on Free Riding*, 73(2) THE MODERN LAW REVIEW 282 (2010).
[24] M.P. Ram Mohan & Aditya Gupta, *Mutation of the Trademark Doctrine: Analysing Actionable Use to Reconcile Brand Identities with Constitutional Safeguards*, 9(1) NATIONAL LAW SCHOOL BUSINESS LAW REVIEW 9.

well as the distinctive character of the plaintiff's mark. Nonetheless, it did not explicitly embrace the structured analytical framework of the CJEU, indicating a more comprehensive and less stringent approach.

IV. (D) Singapore

Singapore's trademark law, shaped by UK and EU frameworks, has developed to differentiate between confusion-based infringement and dilution protection. The Court of Appeal of Singapore, in *Novelty Pte Ltd v Aman resorts Ltd*, acknowledged the well-known status of Aman resorts Ltd.'s 'AMAN' mark in Singapore.[25] The Indian court's decision in Hamdard illustrates this development, acknowledging enhanced protection for well-known marks that extends beyond mere confusion, albeit lacking the clarity observed in Singapore's jurisprudence.

V. CRITICAL ANALYSIS

Hamdard presented their case by highlighting these points:

- In March, 2020, they discovered an advertisement released by Sadar Labs. introducing their product, which featured bottles with a striking resemblance to 'Rooh Afza' trade dress.[26]

- They have been manufacturing and promoting 'Rooh Afza' since 1907 and secured the initial trademark registration in 1942.[27]

- They have gained a significant reputation and goodwill in connection with 'Rooh Afza' and have invested heavily in promotional efforts.[28]

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[25] David Tan & Benjamin Foo, *The Extraneous Factors Rule in Trademark Law: Avoiding Confusion or Simply Confusing?* SINGAPORE JOURNAL OF LEGAL STUDIES 118.
[26] *Hamdard National Foundation (India) & Anr. Versus Sadar Laboratories Pvt. Limited*, LIVE LAW (June 5, 2024), https://www.livelaw.in/pdf_upload/amn06012022sc5512020180826-1-407137.pdf.
[27] *Id.*
[28] *Id.*

- They referenced the case of '*Unani Dawakhana v. Hamdard Dawakhana'*, in which the Lahore High Court determined that 'Roof Afza' was a popular mark, meeting the criteria of a 'well-known mark'.[29]

- They were unable to challenge Sadar's applications to register the mark 'Sharbat Dil Afza' in Classes 5 and 32, leading to their unjust registration by the Trademarks Registry.[30]

- They have submitted a rectification petition against aforementioned registration, claiming that the Registrar of Trademarks was not provided with all the necessary information.[31]

- According to Section 124(5) of the Act, court may issue interlocutory order for injunction even if trademark infringement suit is stayed.[32]

Sadar laboratories argued in their written statement as provided:

- Given that both marks were registered, the suit for infringement cannot be upheld. In 2018, when they registered, their mark was properly advertised and Hamdard did not raise any objections.[33]

- The word 'Afza' has gained popularity in the sharbat industry, with numerous participants in the market incorporating it into their products.[34] It is for this reason that the suit also mentions 'Hamdard' alongside 'Rooh Afza', as 'Hamdard' was the well-known and respected brand, not just 'Rooh Afza'.

- The Unani Dawakhana case involves a situation where the same marks were used without permission, and the violation was committed by an entity that did not have any official registration.[35]

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[29] *Id.*
[30] *supra* note 28.
[31] *Id.*
[32] *Id.*
[33] *Id.*
[34] *Id.*
[35] *Id.*

- Their brand 'Dil Afza' has been in use since 1949 in Class 5, while 'Rooh Afza' has also been used in Class 5.[36] From 1949 to 2020, there was absolutely no room for confusion. Therefore, the choice of 'Dil Afza' for syrups and sharbats was not done with any ill intentions.

- The term 'AFZA' according to the dictionary signifies 'increasing, adding' and 'Hamdard' did not acquire distinct registrations for 'Rooh' and 'Afza'. The registration is for the complete label.[37]

- The words 'Dil' and 'Rooh' have distinct meanings - one referring to the heart and the other to the soul. There is a noticeable disparity in the shape, label, fonts, and colour of caps. Actually, it's a widely used trade dress that one can find in stores.[38]

The Single Judge Bench emphasised the importance of establishing a secondary meaning for 'AFZA' in order to establish exclusivity for the Appellants' goods.[39] As a result, the Court dismissed the motion, asserting that the claim of exclusivity could only be made for the entire term 'ROOH AFZA' and not solely for 'AFZA'.[40]

Dissatisfied with the order, the current appeal was filed by Hamdard National Foundation, requesting a permanent injunction to prevent the respondents from using the mark 'SHARBAT DIL AFZA' or 'DIL AFZA' on the basis of its deceptive similarity to the mark 'ROOH AFZA'.[41] The appellants argued that the use of this mark would mislead consumers and

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[36] *Id.*
[37] *Id.*
[38] *Id.*
[39] Swastik Shukla & Divyanshi Shukla, *Rooh Afza v. Dil Afza: A Classic Case of Deceptive Similarity*, NLIU CELL FOR STUDIES IN INTELLECTUAL PROPERTY RIGHTS (JUNE 5, 2024), https://csipr.nliu.ac.in/trademark/rooh-afza-v-dil-afza-a-classic-case-of-deceptive-similarity/.
[40] 'ROOH AFZA has immense degree of goodwill, prima facie strong mark': Delhi HC in trademark infringement claim, *supra* note 24; Fox Mandal, *Rooh Afza Has Immense Goodwill: Delhi HC Rules in Trademark Infringement Case*, LEXOLOGY, https://www.lexology.com/library/detail.aspx?g=b52a3a05-4290-4327-8dac-77d0fa276c4a.
[41] Hamdard National Foundation (India) and Anr. vs. Sadar Laboratories Pvt. Ltd., LEX ORBIS (JUNE 5, 2024), https://lexorbis.com/pdf/Case-Law-Compilation-2023.pdf.

constitute infringement. They also contended that it would weaken the Appellant's mark.

After carefully considering the arguments presented by both parties, the Delhi High Court has said that 'AFZA' is a crucial component of both 'ROOH AFZA' and 'DIL AFZA'.[42] The term in question is not typically used to describe or commonly associated with the product. As a result, it plays a significant role in ascertaining whether there has been infringement of trademark. The Court also noted that the word 'AFZA' adds a level of resemblance, and the appearance of both goods is also comparable, which makes the Respondent's mark misleadingly similar to that of the Appellants'.[43] The Court emphasised that 'ROOH AFZA' has a long history of usage and deserves legal protection.[44] The mark is a source identifier that carries a significant reputation and is vulnerable to unethical competition. The Court determined that, at first glance, the Respondent's mark does not possess satisfactory level of distinction.[45] As a result, the Court overturned the order made by the Delhi High Court and issued a temporary order preventing Respondent from producing or retailing any products under the mark 'DIL AFZA' in Class 32 until the current lawsuit is resolved.[46]

Reasoning behind Decision of Division Bench:

- 'Dil Afza' and 'Rooh Afza' trademarks have a strong phonetic resemblance.[47] Memory is activated by the English translations of 'Rooh' and 'Dil', which refer to the concepts of 'Soul' and 'Heart', creating a shared conceptual foundation.[48]

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[42] Nupur Thapliyal, *"Rooh Afza" Trademark Has Acquired Immense Goodwill, Requires High Degree of Protection: Delhi High Court in Suit Against "Dil Afza" Sharbat*, LIVE LAW (JUNE 5, 2024), https://www.livelaw.in/news-updates/rooh-afza-trademark-goodwill-delhi-high-court-suit-dil-afza-sharbat-217262.

[43] Namratha Murugeshan, *supra* note 21.

[44] Hamdard National Foundation (India) v. Sadar laboratories Pvt. Ltd., *supra* note 17; *Hamdard National Foundation (India) & Anr versus Sadar Laboratories Pvt Ltd*, LIVE LAW (June 5, 2024), https://www.livelaw.in/pdf_upload/vib21122022fac672022165730-450301.pdf.

[45] *Id.*

[46] *Id.*

[47] Hamdard National Foundation (India) v. Sadar laboratories Pvt. Ltd., *supra* note 17.

[48] *Id.*

- The trade dress of disputed trademark, including the shape of the bottle, its design, the positioning of the house mark, and the vibrant and intricate label design, all play a significant role in creating the overall impression of competing trademark.[49]

- The court said that item is a low-priced consumable and consumers are unlikely to pay much attention to the product's details.[50]

Sections 15 and 17 of the Act clearly indicate that the lawmakers intended for trademarks with several components to be considered as a single unit.[51] This decision appears to prioritize the identification of a mark's dominant aspect, while also recognizing the anti-dissection rule. This approach is supported by a recent order from the Delhi High Court in *Subway IP LLC vs Infinity Food*, where a similar line of reasoning was adopted.[52] The principle of anti-dissection is founded on the fundamental belief that an ordinary potential purchaser would be captivated by the entirety of the composite mark, rather than its individual elements.[53] Thus, it advocates against the notion of engaging in intricate maneuvers in order to uncover insignificant distinctions between opposing viewpoints.

However, throughout the years, the judiciary has established the principle of dominant feature. In '*South India Beverages Pvt Ltd v. General Mills Marketing Inc*', it was pointed out that while evaluating a mark, it is possible to give extra weight or 'dominance' to a specific part or component of the mark that holds greater value compared to other portions of a composite mark.[54] The principle of 'Dominant Mark' states that if a trader uses one or more essential features of a mark, they can be considered to be infringing upon it, even if they do not use the mark in its entirety.[55] This rule is founded

[49] *Id.*
[50] *Id.*
[51] The Trademarks Act, 1999, § 15-17 (December 30, 1999).
[52] Subway IP LLC v. Infinity Food, (2023) 1 HCC 84 (Delhi High Court).
[53] Cadilla Healthcare Ltd. v. Cadilla Pharmaceuticals Ltd., (2001) PTC 541 (SC).
[54] M/s South India. Beverages Pvt. Ltd. v. General Mills Marketing Inc., (2015) 61 PTC 231 (Delhi High Court).
[55] S.M. Dyechem Ltd. v. Cadbury (India) Ltd., (2000) 5 SCC 573 (SC).

on the premise that an individual with average cognitive abilities, who may not have an impeccable memory, could potentially only remember the most significant aspect of a combined symbol. The manifestation of the principle of dominant feature is evident in Section 11(b) of the Act.[56] This section stipulates that a mark should not be registered if it bears resemblance to a prior mark and is being used for similar or identical services, potentially leading to confusion and deception among the public. Here, a '*deceptively similar mark*' could also refer to a mark where the prominent characteristic of another mark is being used.[57]

The anti-dissection rule emphasizes the importance of considering rival marks as a cohesive whole, rather than breaking them down into separate elements.[58] The rule is founded on the notion that the commercial impression on the average consumer is formed by the composite mark all together, rather than its distinct elements.[59] Simultaneously, the principle of dominant mark states that utilizing key elements of a registered trademark, even if not the entire mark, could result in infringement. The application of a combination of two tests has been reinforced by the Delhi High Court's ruling in *Bennet, Coleman and Company vs Fashion One Television LLC and Anr.*[60] The court stated that the anti-dissection and dominant feature rule can both be considered alongside a holistic approach when comparing conflicting marks.[61]

While the single judge order emphasized the prefixes, the division bench's order shifts its focus to the suffix, leading to a different conclusion.[62] The key

[56] The Trademarks Act, 1999, § 11 (December 30, 1999).
[57] The Trademarks Act, 1999, § 2(1)(h) (December 30, 1999).
[58] *Decision Sidesteps Anti-Dissection Rule To Insist That Trademark Components Matter*, WORLD TRADEMARK REVIEW (JUNE 5, 2024), https://www.worldtrademarkreview.com/article/decision-sidesteps-anti-dissection-rule-insist-trademark-components-matter.
[59] *Delhi High Court upholds registration of mark 'Premier League' in favour of Football Association Premier League Ltd.*, SCC ONLINE (JUNE 5, 2024), https://www.scconline.com/blog/post/2024/01/25/dhc-upholds-registration-of-mark-premier-league-in-favour-of-football-association-premier-league-ltd-legal-news/.
[60] *Bennett, Coleman and Company Limited vs Fashion One Television*, INDIAN KANOON (June 5, 2024) https://indiankanoon.org/doc/22509076/.
[61] *Id.*
[62] Namratha Murugeshan, *supra* note 21.

difference between the two decisions lies in the subjective nature of the test. Both orders in this matter indicate that the results of the test may vary depending on how the overall impression is identified. Similarly, the cases mentioned in both orders provide a sense of coherence in determining the criteria for identifying this standard - which is to contemplate the inclusive impression a mark creates. However, application of this standard and evaluating it against the evidence supporting the disputed marks still lacks predictability.

VI. CONCLUSION

Deceptive trademarks negatively impact consumer decision-making and hinder market efficiency by leading consumers to make incorrect purchases.[63] There is no denying that there will always be people who take advantage of the positive reputation linked to a well-known trademark. Thus, it is of utmost importance to prioritize the safeguarding of such a trademark. The law was crafted to ensure compliance with both rules, resulting in the establishment of two standards that aim to achieve this objective through legislation and judicial pronouncements. This will inevitably result in unfair and unpredictable consequences. By combining the two tests (Anti-Dissection rule and Dominant Mark rule) and taking a practical approach to assessing how customers perceive the products when they make a purchase can solve the mystery of deciding if the disputed mark is too similar to the original trademark. The Rooh Afza case showcases a remarkable endeavor to combine the two tests and adopt a practical approach in identifying a mark that closely resembles another, thereby protecting a 100-year-old trademark from infringement.

[63] T.G. Agitha, *Trademark Dilution: Indian Approach*, 50 JOURNAL OF THE INDIAN LAW INSTITUTE 339, 366 (2008).