ISSN: 2321-4716

Peer- reviewed

JOURNAL OF THE CAMPUS LAW CENTRE
VOLUME XI : 2024

[Advanced Online Issue]

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Mode of Citation: XI JCLC (2024) [Advanced Online Issue]

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Published by

Campus Law Centre

Chhatra Marg, North Campus, Maurice Nagar

University of Delhi, Delhi- 110007 (INDIA)

Website: http://clc.du.ac.in

Email: pic@clc.du.ac.in

JOURNAL OF THE CAMPUS LAW CENTRE

VOLUME XI: 2024

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From the Desk of Professor-In-Charge

On behalf of the Campus Law Centre, it is my proud privilege to present Eleventh volume of Journal of the Campus Law Centre (JCLC) to its esteemed readers. It is a Flagship Journal of the Campus Law Centre, University of Delhi which is designed for contribution from legal academia, judges, advocates, and research scholars on the matters of contemporary legal issues. In preparation of this issue, we have strived to keep up the tradition of maintaining high academic standards that the JCLC has been known for. This volume, as earlier volumes, contains thought provoking and scholarly papers on various contemporary and topical legal issues.

We are pleased to present ten Articles, one Note and three Book reviews that in their own way contribute to abetter understanding of a range of issues traversing intellectual property, climate justice, gender equality, NRI marriages, fair trial, digital evidence, illegal mining, solar energy, green tribunals, protecting Indian waters, and female genital mutilation. The topics we cover transcend jurisdictional boundaries, making it possible not just to deepen and internationalise Indian public law debates, but also to present distinctive Indian viewpoints.

Dr. Ankit Singh and Prof. (Dr.) Yogendra Kumar Srivastava in their article explore the intellectual property litigation landscape after the abolition of the Intellectual Property Appellate Board (IPAB). Prof. (Dr.) Hemlata Sharma and Ms. Riya Chugh examine how technology can be leveraged to address climate change and promote climate justice. Animesh Kumar and Prof. (Dr.) Pradeep Kumar Kulshreshta, in their article, analyse the contribution of the Indian judiciary in advancing gender equality. Dr. Sheeba S. Dhar discusses an important socio-legal issue viz., the abandonment of married women in NRI marriages. Dr. Shridul Gupta revisits the imperative of a 'fair trial' and examines its shifting paradigms. Dr. Atul Jaybhaye's article delves into the contemporary area of digital evidence, offering insights into the emerging judicial trends.

Dr. Mirza Juned Beg and Mohd. Sufiyan Khan, in their article, address how illegal mining in Himachal Pradesh obstructs the attainment of Sustainable Development Goals (SDGs). Dr. Rajesh Kumar examines the opportunities, challenges, and viability of India's transition to solar energy. Kumar Kunal discusses the challenges and future prospects for the green tribunals in achieving environmental justice in India. Next, Ms. Sumi Sara Rajan in her article makes a compelling case for extending the concept of protected area system in marine ecosystems to inland water networks, aiming to safeguard Indian

rivers from water pollution. Dr. Ankita Kumar Gupta's note highlights the victimization of young girls subjected to *Khafd*, a form of female genital mutilation (FGM) practiced in the name of 'purity'.

I take this opportunity to express my sincere thanks not only to the contributors of this issue but also to Dr. Ajay Kumar Sharma, the editor, and the members of the editorial committee who serve as the associate editors.

I would like to thank our readers and request their valuable feedback, which will help the editorial committee to improve the quality of the journal.

Professor (Dr.) Alka Chawla

Professor-in-Charge

Campus Law Centre

Editor's Note

Welcome to the Eleventh issue of the Journal of the Campus Law Centre (JCLC), a collaborative effort between academicians, researchers, professionals and other scholars. Our journal aims to provide a platform for projecting the results of legal scholarship by espousing research and reflection on the legal issues of the day.

JCLC is and has always been faculty reviewed, following a double-blind peer review process. The speciality of this volume lies not only in the factum of creative contents of this compilation but more so for the reason of such contributions being made by thorough scholars and researchers. JCLC's wide horizon covers a range of legal issues, and provides our readers an engrossing engagement with various contemporary law and policy issues.

In this volume we are publishing ten Articles, one Note under the 'notes and comments' section, and three Book reviews as elaborated upon by the Professor-In-Charge in the preceding column. On behalf of the Editorial team, I would also like to express my gratitude to the authors of the submissions published, and acknowledge the generous help that both the authors and editors obtained from the peer-reviewers. I also feel irresistible to acknowledge the contributions made by all the members of our editorial committee who spent long and tedious hours in editing the Journal.

Lastly, I would like to express my heartfelt gratitude towards the Editor-in Chief, Professor (Dr.) Alka Chawla, Professor-In Charge, CLC for her tremendous support and cooperation throughout the publication and giving me the opportunity to serve as the Editor of this Journal.

Dr. Ajay Kumar Sharma

Editor

RECALIBRATING INTELLECTUAL PROPERTY LITIGATION IN INDIA AFTER THE ABOLITION OF THE INTELLECTUAL PROPERTY APPELLATE BOARD (IPAB)

Dr. Ankit Singh[*]
Prof. (Dr.) Yogendra Kumar Srivastava[**]

Abstract

Intellectual Property litigation landscape in India has witnessed a significant paradigm shift after the promulgation of the Tribunal Reforms (Rationalisation and Conditions of Service) Ordinance, on 4th April, 2021. By the operation of this Ordinance, the Intellectual Property Appellate Board (IPAB) was abolished. The main reasons behind the abolition of IPAB were unnecessary administrative issues and vexatious procedures at appeal stage. After IPAB was abolished, appeals were to be heard directly by the High Courts. To ensure efficiency, Delhi High Court ("DHC") established dedicated IP division to hear appeals, and Madras High Court followed suit. However, initially, the stakeholders were quite sceptical about this move contending that High Courts were already overburdened with pending matters, and were also understaffed.

DHC has been extremely proactive in the domain of IP disputes resolution. On 24 February, 2022, DHC notified the Intellectual Property Division Rules, 2022 (DHC-IPD Rules, 2022) and the Rules Governing Patent Suits, 2022 (Patent Rules) with the aim of streamlining the dispute resolution process. Whereas the IPD Rules establish a uniform procedure relating to IP disputes, the Patent Rules simplify and embolden the adjudication process in patent infringement cases. In addition to the IPD and Patent Rules, DHC has played a vital role in making IP litigation swift and effective by taking some impressive steps like appointing independent experts, encouraging mediation proceedings for resolution of disputes, recording evidence through video conferencing, cataloguing and categorisation of cases relating to IT Act, IPR, and others.

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[**] Professor of Law, Hidayatullah National Law University, Raipur (C.G.)

Viewing the matter statistically, over 2000 IP-related matters were transferred from IPAB to DHC after the former's abolition. Owing to the presence of a separate IP Division, more than 600 cases were disposed of, which is a remarkable feat. More than 1,000 cases were instituted within the first year of its inception, about fifty percent of patent appeals received from IPAB were disposed of, over 600 commercial suits within a year were adjudicated, and around fifty percent of trademark appeals were heard and disposed of. Certainly, the establishment of IP Division at DHC has ushered a new era of IP litigation process, and the numbers strongly steer us in the direction of establishing more IP Divisions in various High Courts of India.

Pertinently, in the 161st Report of the Review of IPR Regime in India, which was presented before the Parliament on 23 July 2021, the Department Related Parliamentary Standing Committee on Commerce recommended the re-establishment of the IPAB. However, the 169th Report recommended the creation of IP Divisions in all twenty-five High Courts of India.

In this paper, in addition to making a comparative analysis of pre- and post-IPAB scenarios, the authors will be conducting a critical analysis of the current paradigm of IP litigation in the reign of IP Divisions. The authors will also attempt to make a solid case for robust IP Divisions to ensure effective and efficient resolution of IP disputes in India.

Keywords: Intellectual Property, IP Division, High Court, IP Litigation, Intellectual Property Appellate Board, Registrar

I.
Introduction

Amid the international trend of having a separate and dedicated tribunal for intellectual property matter particular after TRIPS Agreement was signed, the Indian government made a significant move. Originally, on 15 September 2003, the Intellectual Property Appellate Board (IPAB) was established by the Central Government to hear appeals from the decisions of the Registrar under the Trade Marks Act, 1999 and the Geographical Indications of Goods (Registration and Protection) Act, 1999. In 2007, the jurisdiction of IPAB was extended to the Patents Act, 1970, which had earlier been with the High Courts. Thereafter, in 2017, by the

operation of the Finance Act, the IPAB jurisdiction was further extended to hear appeals under the Copyright Act, 1957 as well.

The main objective behind the creation of IPAB was to have an executive body that houses a set of experts in intellectual property law including technical members possessing technical scientific knowledge of the domain. It is also a fact that during its existence the IPAB has rendered some significant verdicts that shaped the IP jurisprudence of the country. However, IPAB has always been mired with adversities. Its existence has been persistently questioned time and again by the stakeholders including IP attorneys and scholars. Several factors such as lack of independence in hearing matters, compromised quality of appointments including illegal appointments, understaffing, and lack of resources. Particularly, two reasons have been cited to justify the dissolution of IPAB – failure to dispense quick justice and extraneous burden on the exchequer. Justice Prabha Sridevan of the Madras High Court – who was one of the appointees to the IPAB – had strongly recommended that IPAB be abolished.

In this backdrop, the authors shall first examine the dimensional aspects of IPAB functioning and the situation that led to the ultimate abolishment of the body. Afterwards, the authors shall examine the functioning of the dedicated IP Divisions which are put in place at the Delhi High Court and the Madras High Court. The aim is to study the efficacy of these IP Divisions and contemplate improvements and possibility of establishing more such Divisions.

II.
Intellectual Property Litigation in India in the IPAB Era

With the aim of having a sole executive body to hear appeals in IP matters and to shed the excessive caseload of the High Courts, the IPAB was established by the government. IPAB finds it constitutional foundation under Article 323B as a special tribunal for adjudication of IP disputes. The primary objective was to entrust the IPAB with such powers and duties required for speedy of appeals, rectification, revocation petitions in relation to trademarks, patents, geographical indications and copyright, thereby setting up one common forum to cover four major areas of intellectual property rights.

It is pertinent to note that the establishment a of a separate tribunal in India for IP matters was not something novel. The practice had been followed in the United States. European

Union, Japan and South Korea and later on India joined the league. IPAB gained prominence and global visibility due to its efficient functioning.

2.1 Main Features of IPAB

Established initially to hear appeals under the Trade Marks Act and GI Act, since 2 April 2007, the IPAB had enjoyed the exclusive authority hear and decide appeals from most of the orders or directions passed by the Controller under the Patents Act, 1970. All pending appeals under Patents Act were transferred from High Courts to the IPAB.

Headquarters: The IPAB had its headquarters at Chennai. However, it had seats at Delhi, Mumbai, Kolkata and Ahmedabad as well considering the flow of matters in and around these cities.

Composition: The IPAB bench constituted of a chairman, a vice-chairman, judicial member and technical members. The qualification for a person to be appointed as a technical member were provided under the Trade Marks Act and the Patents Act.

Appellate Jurisdiction: IPAB was vested with extensive jurisdiction to hear appeals against the decisions of Controller or the Central Government in any of the following matters[1]:

(i) Decisions relating to names of inventors
(ii) Decisions relating to patents of addition
(iii) Orders relating to dating of application
(iv) Decisions relating to compulsory licensing of patents
(v) Decisions relating to patent revocation on the ground of non-working
(vi) Decisions relating to restoration of lapsed patents
(vii) Decisions in cases of potential patent infringement
(viii) Decisions in relation to revocation of patents
(ix) In respect of any correction of clerical errors
(x) In respect of registration of assignments of patents

[1] Intepat Team, *The Intellectual Property Appellate Board: Power & Constitution* (18 July 2017, Mondaq), available at https://www.mondaq.com/india/trademark/611548/the-intellectual-property-appellate-board-power--constitution#:~:text=The%20IPAB%20has%20appellate%20jurisdiction,related%20to%20Patent%20of%20Addition, accessed on 17-09-2023

The above list is not an exhaustive one. There are many other orders and decisions in respect of which the appeal was to be heard by IPAB. While the jurisdiction to hear patent infringement cases rested with the High Courts, IPAB had exclusive appellate jurisdiction to receive, hear and dispose all appeals from any order or decision of the Controller and all cases pertaining to revocation of a patent, rectification of register; other than through a counter-claim in a suit for infringement wherein the competent adjudicating authority is the High Court. In other words, the IPAB had the sole authority to exercise powers and adjudicate proceedings emanating from an appeal against any decision or order of the Controller.

Time-limit for Preferring Appeal: It was provided that appeal from any decision or order of the Controller was to be made within three months of the said decision or order, or within such time as the IPAB permitted. An extension to file an appeal was also available through a 'condonation of delay' application.

2.2 Role of IPAB in Streamlining IP Litigation

A wide range of matters was managed by the IPAB coming from both the Indian Patent Office (IPO) and the Trade Marks Registry (TMR). These cases involved intricate issues like dismissal or refusal of applications, protests, translation of relevant guidelines and manuals, and various other procedural issues. IPAB has played a particularly tremendous role in streamlining patent litigation in India.

In order to handle a variety of technical matters and cases, IPAB was planned to be equipped with ample human resources in the form of technical members who possesses specialized knowledge and expertise in various fields of IP, and judicial members as well who was retired judge of High Court, therefore, having significant expertise and experience in applying the principles of law and equity in technical IP matters. In other words, IPAB was a fine blend of technical and judicial expertise dispensing swift and effective justice.

Back in 2020, in the wake of the COVID-19 pandemic, IPAB was one of the first bodies to quickly adopt the system virtual hearings, and an efficient e-filing system as well for smooth functioning and swift disposal of matters. This move was appreciated abundantly by the stakeholders and litigants as it saved a significant amount of time, energy and expenses that are usually associated with physical hearings.

The introduction of the Tribunal Reforms Act, 2021 and the subsequent abolition of IPAB due to certain reasons, namely, slow justice delivery, unnecessary burden on the public exchequer, unfilled vacancies of technical and judicial members, and establishment of commercial courts, forces us to think about what IPAB stood for and its impact on the IP landscape. Let us look at some significant contributions/achievements of the IPAB over the years up until its abolishment:

(i) *Weight in Decisions*: Out of a total 3,793 cases that were decided by the IPAB, only about 3% have been moved against in appeal, and less than 1% faced reversal in such appeals.

(ii) *Affirmation by the Supreme Court*: Usually, judgments rendered by the IPAB were upheld by the Apex Court.

(iii) *Efficiency in Disposals*: In 2018, when the chairman and a technical member sat together in matters, and being otherwise understaffed, the IPAB managed to record highest number of disposal of cases standing at 663. Moreover, it disposed of 181 matters in 2019, and 275 cases in 2020 which was beset with extraordinary challenges of a global pandemic. With full quorum, the average disposal rate was about 26.7 cases per month, and after the appointment of technical members, in August 2020, the rate of case disposal stood at 49 cases per month.[2]

It was observed by various IP lawyers that one major issue that was faced by IPAB was lack of regular appointments of judicial and technical members. Further, it was contended that IPAB still managed to function with efficiency.

IPAB was established to cater to the public interest in relation to resolution of IP matters. The reign of IPAB evoked a mixed response. Some felt that it ushered in a dynamic era where intellectual property matters were heard by an expert tribunal and was in public interest, while some section of the community displayed complete lack of trust in the way it functioned.

[2] Pravin Anand, *Abolishing IPAB: An Own Goal?* (India Business Law Journal, 21 April 2021), available at https://law.asia/abolishing-ipab-own-goal/#:~:text=With%20the%20passing%2C%20on,The%20Trade%20Marks%20Act%2C%201999, accessed on 17-09-2023

III.

Abolition of IPAB: Where did it go wrong?

The eighteen-year journey of IPAB has been through numerous crests and troughs. Though since its very creation, it was heavily criticized for its underworking. There have been many constant reasons that adversely impacted the core functioning of IPAB.

3.1 Concentration of Judicial Power

Firstly, we have to address the issue of concentration of judicial power which is not usually a topic of discussion when one talks about the shortcomings of IPAB. This issue becomes extremely relevant when a developing country attempts to establish a specialized body to hear matters of particular domain like IP. Prior to the establishment of IPAB, the entire IP litigation rested with the High Cours and District Courts leaving very little room for concentration of judicial power. The main reason behind distribution of power was the cases were filed in different courts across the country on the basis of jurisdiction, and even in these courts a roster system was followed that ensured that no single judge hears the same matter twice during his/her tenure. This also allowed a remarkable diversity of perspectives from judges, which although resulted in conflicting precedents making the resolution process at appeal stage more complex, but still contributed to the enrichment of IP jurisprudence in the country. After the creation of IPAB, the diverse nature of judicial perspectives was all set to be compromised because the powers were supposed to be concentrated in one individual, namely, the Chairperson of IPAB – who was a retired judge of a High Court. Composition-wise, as stated above, IPAB was a small body. The only remarkable thing about the composition was that it had technical members for all major area of IP – patent, trademark, copyright and plant variety. The Chairperson of IPAB had enjoyed a wide range of powers including constituting benches and allotment of cases to those benches. Thus, he had huge influence over the outcome of a particular matter. What is logical was that the ideological orientation of one individual i.e., the Chairperson, would govern or steer the IP jurisprudence through the instrumentality of IPAB. Pertinently, during the existence of IPAB, there was not a single case where any member disagreed or dissented from the ruling rendered by the Chairperson.[3] This raised some serious questions from IP jurists across the nation. The final nail in the coffin was the Indian Drug Manufacturers Association (IDMA) litigation in 2020

[3] Prashant Reddy, *The End of the IPAB and Lessons on Concentration of Judicial Powers* (Spicy IP, 1 September 2021), available at https://spicyip.com/2021/09/the-end-of-the-ipab-and-lessons-on-concentration-of-judicial-powers.html, accessed on 17-09-2023

where the Supreme Court refused to extend the tenure of Justice Manmohan Singh as the Chairperson of the IPAB. With that verdict, the Justice Singh's tenure ended and so ended the reign of IPAB as a credible institution.[4]

3.2 Other Relevant Factors

Apart from the matter of judicial power concentration, the very constitutionality of IPAB had been challenged by way of a writ petition in the Madras High Court by the leading IP professional late Shamnad Basheer back in 2011.[5] Following were the contentions that were raised by the petitioner:

(i) The qualification criteria of the officers of IPAB (members, Vice-Chairman and Chairman) as mentioned in Section 85 of the Trade Marks Act, 1999, compromise the principle of independence of judiciary and thus violate the theory of separation of powers; and

(ii) Lack of statutory rules pertaining to the selection of the officers of IPAB is violative of the basic structure of the Constitution, and the selection procedure is contrary to the decision of the Court in *Union of India v. R. Gandhi*.

The Court agreed with the contention of the petitioner and held that the relevant provisions of Section 85 pertaining to selection of members was unconstitutional because the process of selection of members was undertaken by the Executive whereas the functions to be performed by such elected officers were judicial in nature.

In addition, we can summarize some other factors pertaining to the functioning and existence of IPAB that drew serious criticism from the legal fraternity[6]:

(1) During its entire existence of about eighteen years, IPAB was not able to have a chairperson for a cumulative total of 1130 days. This marked a huge gap in leadership of the body. An executive body without a chairperson can hardly be said to be fully functional.

(2) Up until its abolition, IPAB was unable to hear matters pertaining to revocation of patents for a continuous period of four years as it did not have a technical member in domain of patents since 2016.

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[4] *Ibid.*

[5] *Shamnad Basheer v. Union of India*, 10 March, 2015, W.P.No.1256 of 2011

[6] Prashant Reddy, *The Case for Shutting Down the Intellectual Property Appellate Board (IPAB)* (Spicy IP, 15 April 2020), available at https://spicyip.com/2020/04/the-case-for-shutting-down-the-intellectual-property-appellate-board-ipab.html, accessed on 18-09-2023

(3) IPAB failed to function properly in matters relating to compulsory licensing of copyright when the functions of the Copyright Board were merged with IPAB by virtue of the Finance Act of 2017, as appointment of a technical member was not made to deal with the matters. This resulted in a huge backlog of cases.

(4) IPAB has always faced infrastructural issues. It was reported that its Chennai office was in a deplorable condition. Due to this, litigants used to fly to Delhi or Mumbai for circuit hearings incurring extra financial burden.

(5) As discussed above, IPAB always suffered from the problem of subpar appointments, particularly the technical appointments. Most members that were selected had almost no experience of legal practice or holding a judicial office except some administrative post like chairman of Legal Service Authority, and therefore lacked the required legal expertise. All these members were either selected from the Trademark Registry, or the Patent Office, or Indian Legal Services.

(6) When IPAB was already there to hear appeals in IP matters, litigants still approached High Courts against the decisions and orders of IPAB adding an unnecessary layer of litigation making it a time and money consuming process. To remedy this, on 6 December 2019, the Ministry of Commerce and Industry introduced a regulation that allowed the litigants to directly approach the Supreme Court by way of Special Leave Petition (SLP) against the decisions of IPAB. This prevailed for a year and a half before IPAB was finally abolished.

(7) During its existence, a lot of funds were channelized towards IPAB while the revenue generation from the tribunal was extremely limited in comparison warranting its shutting down.

(8) In cases of revocation/rectification petitions, the litigant cannot move directly to the High Court unless the same has been heard and decided by IPAB, which unnecessarily adds burden on litigants.

Many of these issues were pointed out by the DHC in *Mylan Laboratories Limited v. Union of India*.[7] All these factors made IPAB an extremely dysfunctional entity. Poor state of affairs at IPAB had caused major concerns for lawyers, litigators and the general public.

[7] W.P. (C) 5571/2019 & C.M. Application 24540/2019 & 26833/2019

3.3 Responses from the Legal Fraternity

The move of the government abolishing the IPAB has certainly attracted a mixed set of responses from IP lawyers, experts, and judges.

Criticizing the move of the government of abolishing IPAB, Justice Manmohan Singh, who also served as the chairperson of IPAB, contended that under TRIPS Agreement India had the obligation of having a separate tribunal to hear IP matters, and the abolishment of IPAB will not be good for India's international image. He went on to say that our High Courts are already lacking in the number of sitting judges, and when the pending matters are distributed to Commercial benches of High Courts, it would add significantly to the burden.[8]

Senior Advocate Abhishek Manu Singhvi vehemently criticized this move and asserted:

> *this comprehensive elimination of disparate tribunals implies of arbitrariness and flagrant deficiency of application of mind. Secondly, that clog up has only increased because of over 33 per cent of all judicial posts at the high court level are at any given time vacant and unoccupied. Thirdly, matters of intellectual property are complex and expertise oriented and take much more time than normal other civil or criminal matters*.[9]

Pravin Anand, Managing Partner of the leading IP law firm Anand & Anand, in his incisive article, has categorized the challenges that await the IP litigation landscape after the abolishment of IPAB:

(1) Possibility of conflicting decisions by different High Courts on same issues resulting in incoherent or inconsistent IP jurisprudence;
(2) In absence of IPAB, various IP offices will lose accountability as there would no authority over them to keep a check on administrative processes;
(3) A huge chunk of time will be invested in filing appeals against orders of different IP offices including original revocation/rectification/cancellation proceedings, ultimately promoting the bad practice of forum shopping;

[8] Nalini Sharma, *Scrapping of the IP Tribunal: The Good, the Bad and the Ugly* (India Today, 12 April 2021), available at https://www.indiatoday.in/india/story/scrapping-of-the-ip-tribunal-the-good-the-bad-and-the-ugly-1790112-2021-04-12, accessed on 19-09-2023
[9] *Ibid.*

(4) IPAB had technical members to deal with intricate issues relating to patents, copyright, trademarks, geographical indications and plant variety, now they will not be available;
(5) Significant burden will be added to Commercial benches of High Courts which were already struggling during the COVID-19 pandemic;

He also cited many other challenges such as loss of livelihood of tribunal officers such as patents agents and trademark agents, delay in adjudication and increase in procedural costs, and there will be vacuum created in the IP system of the country as IPAB was its strongest pillar.

Commenting on the changes in the IP ecosystem of India, Mr. Anand contended that abolition of IPAB will raise questions on India's credibility as a place for resolution of IP disputes, and will dilute the standards that have been established over a considerable course of time. India had exhibited a remarkable growth on the Global Innovation Index holding 48th rank out of 131 economies that featured the Index, but this particular move is kind of a negative indication and goes against the government's bigger plan of "Ease of Doing Business".[10]

Some members of the fraternity have welcomed the government's decision as well. Justice Prabha Sridevan, ex-judge of the Madras High Court and ex-chairperson of IPAB, has argued that the move is in greater interest of public. She defended the move from the public health angle. She mentioned that IP cases pertaining to pharmaceutical patents hold immense importance and the High Courts have inherent powers enabling them to enforce fundamentals of public health, which a tribunal cannot do. She opined that matters of public health and constitutional rights cannot properly be addressed by tribunals. She added that people had the option of approaching the High Court whenever they were unhappy with IPAB's ruling, now they can directly approach the High Court.

An excerpt from Justice Sridevan's opinion shared with India Today is reproduced here to give a strong idea about her stand:

> *…And when I talk of the IPAB, I am talking of the jurisprudence that the IPAB was given to handle. If that*

[10] Pravin Anand, *Abolishing IPAB: An Own Goal?* (India Business Law Journal, 21 April 2021), available at https://law.asia/abolishing-ipab-own-goal/#:~:text=With%20the%20passing%2C%20on,The%20Trade%20Marks%20Act%2C%201999, accessed on 17-09-2023

> *jurisprudence goes back to the high court, I am really happy. The judge who is going to deal with the matter is not going to struggle for jurisprudence because the high court will provide him with it. And at any point of time, the high court can ask for expert help*.[11]

Prashant Reddy, a renowned IP expert, holds that with IP matters being distributed across High Courts, we can expect to witness a significant change in the ecosystem. As various judges deliver diverse views on IP matters, we will see an enrichment of IP jurisprudence which is the ultimate goal of common law systems.[12]

With these conflicting views, we can actually gather that IPAB existed albeit with its glaring shortcomings, to bring a synergy in the IP litigation landscape. As we stand today, IP Divisions at Delhi High Court and Madras High Court have taken the driving seat. Before we proceed to discuss the paradigm shift and future roadmap after IPAB abolition, let us look at the specific changes brought in by the Tribunal Reforms Act, 2021, relevant to the discussion at hand.

IV.
IP Ecosystem after the Tribunal Reforms Act, 2021

The Tribunal Reforms Act brought some significant changes in various legislations. These major changes have been summarized below:

4.1 Copyright Act, 1957

The Appellate Board was dissolved, and its powers and functions were taken over by the Commercial Courts, and High Courts became the appellate body. The Commercial Courts now have the power to adjudicate upon the following:

(i) Status of publication of any work;
(ii) Disputes relating to assignment;
(iii) Granting of compulsory licenses;
(iv) Issues relating to statutory licenses;

[11] *Supra* note 8.
[12] Prashant Reddy, *The End of the IPAB and Lessons on Concentration of Judicial Powers* (Spicy IP, 1 September 2021), available at https://spicyip.com/2021/09/the-end-of-the-ipab-and-lessons-on-concentration-of-judicial-powers.html, accessed on 17-09-2023

(v) Term of anonymous/pseudonymous works

(vi) Grant licenses for producing and publishing translations;

(vii) Disputes pertaining to tariff rates set by the Copyright Societies; and

(viii) Rights of resale share under section 53A

Further, now the High Courts enjoy the power of rectification of the Register of Copyrights.[13] It has also been vested with the power to hear appeals against the orders passed by the Registrar of Copyrights.[14]

4.2 Patents Act, 1970

Appellate Board under the Patents Act has been abolished which used to hear appeals filed against the orders of the Controller General of Patents pertaining to various issues such as revocation, ratification, etc. The Appellate Board is now substituted by High Court. Hence, now the High Courts have the power to:

(i) revoke a patent;

(ii) rectify the Register of Patents[15];

(iii) allow any alterations or amendments in complete specification of patents; and

(iv) issue validity certificate of specification[16]

4.3 Trade Marks Act, 1999

Under the Trade Marks Act, the power to hear appeals against the decisions of Registrar of Trade Marks has been transferred to the High Courts. Depending on the context, 'Appellate Board' is now read as either 'Registrar' or 'High Court'. Some of the powers conferred on the Registrar and the High Court are as follows:

(i) removal of trademark from the register and imposition of limitations for non-use;

(ii) requiring an applicant to furnish security;

(iii) variation and rectification of the register;

(iv) entertaining application for registration with respect to any certification mark; and

(v) admission of evidence in legal or opposition proceedings.

4.4 Geographical Indications of Goods (Registration and Protection) Act, 1999

[13] Copyright Act, 1957, s. 50.
[14] *Id.*, s. 70.
[15] Section 71, Patents Act, 1970, s. 71.
[16] *Ibid.*

As under the Trade Marks Act, the power of Appellate Board has been transferred to the Registrar of Geographical Indications and High Courts under the GI Act. Both the Registrar and High Court exercise the following common powers now:

(i) removal from register in case of non-payment of renewal fee;
(ii) variation and rectification of the register; and
(iii) admission of evidence in legal or opposition proceedings.

In addition, High Courts also have the power to hear appeals against the decisions of the Registrar of Geographical Indications, to stay proceedings when the invalidity of registration is pleaded, and to issue certificate of validity of registration.

4.5 Protection of Plant Varieties and Farmers' Rights Act, 2001

After the Tribunal Reforms Act, the Plant Varieties Protection Appellate Tribunal[17] has been abolished and its powers have been transferred to the High Courts. Now the High Courts have the power to hear appeals against various decisions of the Registrar including:

(i) Registering a plant variety;
(ii) issues relating to any licensee; and
(iii) revocation/ modification of compulsory license.

The High Courts may also pass orders as they deem fit.

V.

Establishment of Special IP Divisions: Ushering a New Game-changing Era

After conducting a thoroughly rigorous examination of practices and procedures of as many as 40 different jurisdictions across the globe, creation of a dedicated IP Division (or specialized IP benches) was recommended by the committee working on the issues. Following matters are to be heard and adjudicated by such IP Division:

- infringement suits, both fresh and pending;
- appeals against the decisions of patent/trademark/copyright offices;
- revocation and cancellation matters; and
- application for rectification of patents/trademarks register

[17] Protection of Plant Varieties and Farmers' Rights Act, 2001, s. 54.

The idea of establishing dedicated IP Divisions (hereinafter referred to as "IPD") emanated from the Parliament itself after the enactment of the Tribunal Reforms Act. A parliamentary panel was constituted to conduct a study on the IP regime of India and how it would take shape after the abolition of IPAB. In its conclusion, for effective and timely resolution of IP matters, the panel had suggested the High Courts to house dedicated IPDs.[18]

Thereafter, in July 2021 it was the Delhi High Court (DHC) that took the first step in establishing a dedicated IPD with a roster of five judges assigned to it from the Commercial Division. It was natural course of action for DHC to do it because as per data it received almost over 60% of all IP matters in the country. As per the Rules, the IPD will play the role of trial court and appellate court. It will have the power to review cases on appeal and to reverse the original decisions relating to implementation of patents, designs, trademarks, and geographical indications. Matters relating to copyright are channelized towards Commercial Courts.

5.1 IP Division at DHC: The New Face of IP Litigation

DHC has been extremely proactive in the domain of IP disputes resolution. On 24 February, 2022, DHC notified the Intellectual Property Division Rules, 2022 (DHC-IPD Rules, 2022) and the Rules Governing Patent Suits, 2022 (Patent Rules) with the aim of streamlining the dispute resolution process. Whereas the IPD Rules establish a uniform procedure relating to IP disputes, the Patent Rules simplify and embolden the adjudication process in patent infringement cases. In addition to the IPD and Patent Rules, DHC has played a vital role in making IP litigation swift and effective by taking some impressive steps like appointing independent experts, encouraging mediation proceedings for resolution of disputes, recording evidence through video conferencing, cataloguing and categorisation of cases relating to IT Act, IPR, and others.

The IPD Rules have added some new concepts to facilitate smooth disposal of IP matters[19]:

(1) ***Hot Tubbing***: It is when the evidence adduced by two experts on the opposite sides is allowed to be admitted concurrently.

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[18] *Parliamentary Panel Suggests Setting up of Intellectual Property Divisions in High Courts* (Times of India, 10 April 2022), available on https://timesofindia.indiatimes.com/india/parliamentary-panel-suggests-setting-up-of-intellectual-property-divisions-in-high-courts/articleshow/90762109.cms, accessed on 23-09-2023

[19] Surendra Sharma and Udayvir Rana, *Game-changer: The Intellectual Property Division of the High Court of Delhi* (Managing IP, 30 September 2022), available at https://www.managingip.com/article/2aoxdrzghl7fpb3f1ce80/sponsored-content/game-changer-the-intellectual-property-division-of-the-high-court-of-delhi, accessed on 30-09-2023

(2) ***Empowering High Court***: High Court has the power to refer any specific matter to subject-matter experts to get their expertise and assistance, and the judges have the authority to appoint two law researchers to assist them in technical and techno-legal aspects. These two posts are in addition to the law researchers appointed under the Delhi High Court (Original Side) Rules;

(3) ***Option of Mediation***: If the judges are of the opinion that parties ought to try mediation, the court may appoint a qualified mediator or a panel of mediators consisting of individuals with expert knowledge of IP. It is pertinent to note that the mediation proceedings may be undertaken concurrently with the legal proceedings in the best interest of the parties and to enable swift adjudication; and

(4) ***Supervisory Jurisdiction***: The Rules grant supervisory jurisdiction to the IPD that authorizes it to streamline the overall functioning of the IP office through relevant orders while entertaining appeals against its decisions.

Considering the large volume of IP matters flowing inside the DHC, the number of dedicated IPR benches has been increased to three from two. The IPD at DHC has now enjoys the following:

a. Original jurisdiction in IP matters;
b. Jurisdiction in relation to infringement;
c. Appellate jurisdiction;
d. Revisional jurisdiction in matters from Commercial Courts; and
e. Supervisory capacity over IP Office through extraordinary writ jurisdiction

If we talk numbers, over 2000 IP-related matters were transferred from IPAB to DHC after the former's abolition. Owing to the presence of a separate IP Division, more than 600 cases were disposed of, which is a remarkable feat. More than 1,000 cases were instituted within the first year of its inception, about fifty percent of patent appeals received from IPAB were disposed of, over 600 commercial suits within a year were adjudicated, and around fifty percent of trademark appeals were heard and disposed of. Certainly, the establishment of IP Division at DHC has ushered a new era of IP litigation process, and the numbers strongly steer us in the direction of establishing more IP Divisions in various High Courts of India.

Now that the vitality of the IPD at DHC is proved through numbers, in the authors' opinion, focus must be shifted towards enhancing its efficiency by allocation of more funds

and human resource. This also emerges as a clear victory for the argument in favour of establishing dedicated IP Divisions in several other High Courts.

5.2 Looking Beyond DHC in IP Matters

It is noteworthy that after DHC and Madras HC, talks are also on to establish special IPDs at High Courts of Bombay, Kolkata and Gujarat, and though IP lawyers are welcoming this move, they still hold that their first venue choice for IP litigation would be DHC.

There are some factors that strongly favour setting up IP Divisions in various High Courts:

(1) ***Price of the Suit***: IP Division at DHC only entertains high-value litigation, and absence of a pecuniary threshold in High Courts of Bombay, Calcutta and Madras means that initiating a suit at these courts could be much cheaper because the court fees would depend on the suit's valuation;

(2) ***Territorial Jurisdiction***: Plaintiffs can take special leave to file a suit against the defendants in Madras, Bombay or Kolkata, even in cases where the causes of action do not entirely fall under their jurisdiction;

(3) ***Growth of Jurisprudence***: Experts believe that establishing IP Divisions in other High Courts may have positive effect on IP jurisprudence as the same would grow across many dimensions.

Krishnan Kalyanaraman, Vice President (Legal), Matrimony.com based in Chennai, points out that it would be nice to have different options available to file an IP case so that litigators may be able choose the most favourable forum based on situations and circumstances of each matter. He further added that filing a suit at local IP Divisions other than Delhi would be reasonable from cost perspective, as a Chennai-based plaintiff would have to bear a cost of INR 500,000 at a local forum compared to a whopping amount of INR 2 million in DHC.[20] Further, Vijayalakshmy Malkani, senior IP and brand protection counsel at Hindustan Unilever, asserts that IP Division at DHC is quite progressive in its approach and no other courts have been able to match the level of DHC.[21]

[20] Sukanya Sarka, *Talk of IP Divisions Excites Counsel but Delhi Remains Top* (Managing IP, March 15, 2023), available at https://www.managingip.com/article/2beko2eq3d0unjc08229s/talk-of-ip-divisions-excites-counsel-but-delhi-remains-top, accessed on 28-09-2023

[21] *Ibid.*

Establishing specialized IP Divisions at various High Courts could well be a game-changing move because it would enable focused attention and adjudication of IP matters by a panel of expert adjudicators who have specialized knowledge of the domain. On the other hand, some other lawyers contend that these IP Divisions may also lead to conflicting IP jurisprudence being developed in various territories.

In conclusion, it still is a long journey of attracting litigators to IP Divisions other than DHC, and would require a meticulously devised plan of action. The authors believe that establishment of dedicated IP Divisions would significantly help potential IP litigators that operate in different parts of country in accessing remedies under the statutory framework for IP enforcement.

VI.

Conclusion

It is true that IPAB was established to provide an efficient structure for IP litigation in India. Having a dedicated expert body to hear and dispose of IP matters was also a part India's international obligation. It is also true that during its existence, IPAB was not a total failure. Despite the major challenge of appointment of judicial and technical members, IPAB was still able to function and provide speedy disposal of cases.

IPAB's abolition has attracted mixed responses from the stakeholders because where some experts believe that IPAB was a great forum for litigator to move against decisions of IP offices, some other experts contended that as an adjudicating body it was fraught with administrative difficulties. These administrative challenges involved appointment of technical and judicial members, lack of resources and infrastructure, and its only four branches in metropolitan cities that made it quite inconvenient for right-holders across cities to access the forum. Therefore, the twenty-year reign of IPAB has been viewed differently by different experts. This is abundantly reflected in the fact that the Department Related Parliamentary Standing Committee on Commerce recommended the re-establishment of the IPAB in its 161st Report presented in Rajya Sabha in July 2021, while the same Committee recommended the creation of IP Divisions in all twenty-five High Courts of India in its 169th Report.

Now, it is quite clear that the IP Divisions are here to stay and there is little possibility that government would think of bringing the IPAB back. So, with dedicated IPDs at Delhi HC and Madras HC, and having also discussed the effectiveness and efficiency of the DHC-IPD,

we can fairly assert that these IPDs can prove to be a tremendous improvement over IPAB in terms of facilitating IP litigation. After carefully addressing and resolving some jurisdiction-related conundrums that may have arisen after the abolishment of IPAB, IPDs in various High Courts can entertain almost all the matters that were earlier dealt with by IPAB.

Furthermore, there are a few strategic steps that may be taken to recalibrate the IP litigation landscape which can be summarized as follows:

1. Establishing dedicated and efficient IP Divisions housed in various High Courts;
2. Efficient fast-track and cost-efficient procedures steered through these Divisions;
3. Comprehensive training programs for judges to enhance nuanced understanding of IP disputes of varying characters;
4. Increased resource and infrastructure allocation to the Divisions; and
5. Promoting technological advancements such as e-filings, virtual hearings, etc.

In our opinion, the IPD at DHC has set a brilliant benchmark, and our policy-makers should aim at strategically establishing more well-equipped IPDs in various other High Courts following the DHC-IPD model so that litigators can satisfactorily get their matters resolved in a time-bound manner. Moreover, IPD at DHC should also aim to raise the bar higher by enhancing its functionalities through strategic means.

In order to effectively build these dedicated IP Divisions, a national task force comprising members from the judiciary, legal academia, and IP practitioners may also be created coupled with regular consultation with stakeholders. Hence, it is rather fair for us to conclude that dedicated specialized IP Divisions are the future of IP litigation and jurisprudence landscape of India.

HARNESSING TECHNOLOGY FOR CLIMATE RESILIENCE: A COMPREHENSIVE LOOK AT INDIA'S ECO-TECH REVOLUTION

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Abstract

In the battle against climate change, India emerges as a technological powerhouse, wielding innovation as a mighty sword to protect its environment and propel climate resilience. This paper unveils the transformative journey of India's eco-tech revolution, where cutting-edge technology marries environmental protection, and together, they lead the charge against climate adversity. Amidst the vibrant landscape of renewable energy, India stands tall, harvesting the sun's ray, harnessing the wind's power, and pushing the boundaries of clean energy solutions. Mitigation laws blend seamlessly with green technology, setting the stage for a sustainable future. Artificial intelligence emerges as the climate wizard, employing predictive prowess to foresee climate impact, while drones patrol the skies, capturing invaluable data to guide climate decisions. India's global climate diplomacy finds strength in its technological prowess, influence in international commitments and regional cooperation.

The 2023 climate agenda unfolds with a tech-powered resonance, heralding a revolution in climate resilience. Within the UNFCCC arena, India's tech footprint amplifies its voice on the global stage, emphasizing the role of technology in shaping climate policies. This paper uniquely explores the concept of climate justice through innovation, highlighting technology's role in bridging the climate gap. It envisions a future where collaborative efforts, both within and beyond borders, share India's tech wisdom to combat climate change. Embracing innovation as a catalyst for a greener India and a more sustainable planet, this research paper offers an innovative perspective, actionable insights, and recommendations. It highlights technology's pivotal role in environmental protection and climate resilience in India and beyond.

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Keywords:
Climate Technology, Sustainable Innovation, Environmental Resilience, Eco-Tech Revolution and Climate Resilience

I
Introduction

India has got a great challenge from the population and from the side of developing countries as a whole since it is a most populous country and one of the most developing country in the world.

1.1 Setting the Stage: India's Climate Challenge

The country has its own unique environmental issues that are further escalating with increased speed of industrialization, urbanization and growth of population. [1] The consequences of climate change are becoming more noticeable in many ways, such as rising temperatures, on and off monsoon and focused on urgency of extreme climatic events which are adversely affecting many communities across the country.[2] This section explains the challenges that India faces in relation to climate and stresses upon the urgency of the solutions.

1.2 Pioneering a Green Future: The Role of Technology

In the climate crisis, India comes out leaping for innovation towards environmental conservation and climate change adaptation. This subsection seeks to discuss how innovative technology is being applied in different sectors in India to fight climatic change. It also reaffirms the technological value when it comes to the consideration of more effective innovations in the fight against climate change in India and other parts of the developing world.

[1] Gunjan Gautam, "Green Technology for Sustainable Agriculture Development: Assessing the policy impact in selected APCAEM-member countries.", *available at:* https://un-csam.org/sites/default/files/2021-01/np_0.pdf
[2] World Economic Forum, " Ways Technological Innovation Can Help Us Meet Climate Goals."(2022), *available at*: https://www.weforum.org/stories/2022/05/3-ways-technological-innovation-can-help-us-meet-climate-goals/ (last visited on September 21, 2023)

II

The Technological Vanguard

To some extent, one of the most significant features of India's transition towards a sustainable future relates to the use of renewable sources of energy.

2.1 Harnessing the Power of Renewable

Wind power or wind energy is the other option India relies on in its renewable energy mix. Wind resources especially in the western coast line and hilly terrain have boosted the development of wind farms.[3] India has strong connection with wind energy as seen in its membership with GWEC and its participation in the formulation of wind energy policies at international level.

2.2 Solar, Wind, and Beyond: Clean Energy Success Stories

Sustainable electricity sources are being used in micro-grids that are offering electricity to communities which were earlier not connected to the main power grid. That India is at the forefront of microgrid deployment is therefore consistent with the country's climate justice ethos affordable clean energy for all.[4]

Thus, the experience of India in the application of renewable energy sources can really become an example of its actions for the formation of a sustainable ecosystem and adaptation to climate change[5]. Its outstanding advancements in both the solar and wind energy and its efforts towards exploring numerous forms of clean energy as a blow to a green revolution that goes beyond the nation's boundaries.

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[3] Er. Rajesh G. Burbade, "Green Technology in Agriculture: Tools and Technologies that Drive Sustainable Indian Agricultural Development," *Just Agriculture* (2021), *available at*: https://justagriculture.in/2021/september/publications.html

[4] "Drones: New Heights in Climate Change," Hitachi Social Innovation Stories, *available at*: https://social-innovation.hitachi/en-eu/stories/technology/drones-new-heights-climate-change/ (Visited on September 20, 2023).

[5] Gunjan Gautam, "Green Technology For Sustainable Agriculture Development: Assessing the policy impact in selected APCAEM-member countries.", *available at:* https://un-csam.org/sites/default/files/2021-01/np_0.pdf

III
Green Laws and Tech Synergy

India identified important legal directions for the constitutional realization of environmental policy and sustainable technological development in the fight against climate change.

3.1 Environmental Guardians: India's Mitigation Laws

In this context, the integration of green laws and technology has turned out to be vital in addressing the nation’s climate change course. This sub-Section of the paper discusses the mitigation law of India, the development of the laws, and the compatibility of the laws with Green Technology.

India's journey towards climate mitigation began with the comprehensive policy framework set the stage for India's climate commitments and established eight national missions, each focusing on a specific aspect of mitigation and adaptation.[6].

IV
AI's Climate Wizardry

India is not unmindful of this ugly development, and has since endeavored to wield Artificial Intelligence (AI) as a strong weapon to combat climate change. It warms as a crystal ball and provides glimpses into climate implications as well as promotes ideal prevention and management measures.

4.1 AI's Crystal Ball: Predicting Climate Impact

This section focuses on the use of AI in shifting climate predictions and decisions. The extensive and heterogeneous climate of India requires effective analysis to be able to prevent harm and construct preventive measures.

Superior to human forecasts AI algorithms trained in machine learning analyze colossal datasets collected from satellites, weather stations, and other devices to deliver very accurate

[6] “Perform, Achieve, and Trade (PAT) Scheme” Bureau of Energy Efficiency, *available at:* https://www.beeindia.gov.in/pat/about-pat, (last visited on September 19, 2023).

climate predictions.[7] Such forecasts are perhaps most crucial for businesses that are sensitive to the flip side of weather, including agriculture, the yields of which can vary even with small changes in climatic conditions.

Another area where AI is widely applied regarding climate is in crop yield prediction. AI models, based on past weather forecasts, soil characteristics, and various crop varieties, provide very precise estimates. It indicates informed decision making, optimum utilization of resources and adaptation to changes in climatic conditions for the farmers. Furthermore, the early warning and prediction system supported by the artificial intelligence alleviates the effects of natural disasters, such as cyclones and floods.[8] These systems offer timely alarms to the affected societies, which can vacate and perform preventive measures that keep lives intact.

4.2 Machine Learning for Smarter Climate Decisions

The applications of AI include going beyond making predictions to offer better-proportioned climate decision-making. Computer learning algorithms use information from various sources including the environmental monitoring instruments and satellite imagery to optimize on the resource allocation and the general management of the environment.

In urban planning, the use of simulations through Artificial intelligence helps in construction of structures that are accommodating of climatic changes and cheap in energy consumption. Making use of climate data in these simulations helps to guarantee that structures are strong and durable enough to sustain challenging weather conditions while at the same time integrating efficient energy utilization, thus creating sustainable and resilient buildings.[9]

AI is also necessary in the management of energy grids whereby machine learning techniques are used to determine consumption to avoid wastage and reduce the emission of carbon. These Demand-response systems even employ AI to promote more electricity consumption at less hours thereby reducing the pressure on power supply systems.

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[7] "Ways Technological Innovation Can Help Us Meet Climate Goals", World Economic Forum, (May 2022) *Available at*: https://www.weforum.org/agenda/2022/05/3-ways-technological-innovation-can-help-us-meet-climate-goals/, (last visited on September 18, 2023)

[8] M. S. Uddin et al., "Early Warning Systems for Extreme Climate Events," in Climate Change and Agriculture, Springer (2021), available at : https://link.springer.com/chapter/10.1007/978-981-15-9348-3_3, (last visited on September 23, 2023)

[9] "Swachh Bharat Abhiyan (Clean India Mission)", Swachh Bharat Mission, Government of India, *available at:* https://swachhbharatmission.gov.in/SBMCMS/index.htm, (last visited on September 19, 2023).

Also, another important aspect is in the nature conservation, including fighting deforestation, supporting wildlife, and, last but not least, solving the problem of pollution. Utilizing satellite images and sensors, AI identifies the violators of the law in companies logging and countering them, monitors the animals, and pinpoint sources of pollution.

Following is India's array of effort that elucidates the commitment to climate through AI programs: The National AI Portal and AI for Agriculture that indicates AI capability to address climate and sustainable climate mission. Thus, India's use of AI in the strategic sectors like agriculture, urban planning, and energy make it better equipped to deal with the climate change impacts; AI essentially becomes its climate friend.

V

Drones: Guardians of the Sky

Combined with other technologies and constantly developing, drones occupy an important place as observant scouts in the process of combating climate change and adapting to its effects.

5.1 Eyes in the Sky: Drones in Climate Monitoring

It makes a distinct platform; it provides the ideal and consecutive survey of the environmental alterations. This section focuses on the ways drones are changing climate assessment in India and the part they play in preserving nature.[10]

Unmanned Aerial Vehicles (UAV's) or what is commonly referred to as drones have gained importance due to the versatility and simplicity that accompanies the use. These aerial tools as are mainly outfitted with effective sensors and cameras which provide optimal images and collect valuable information in multiple areas especially inaccessible areas. Currently, drones are used in India to monitor climate data indicators as outlined as follows.

A major use of drones has been assessing deforestation and forest ecosystem condition in the country. Using images from over the forested areas the drone is able to capture more information concerning the rate of deforestation as well as the general health of the

[10] B. O. Sullivan, "Drones as a Tool for Climate Change Mitigation and Adaptation" Global Health Equity blog posts. 3. (2021), *available at:* https://ir.lib.uwo.ca/gheblogs/3 (last visited on September 22, 2023).

ecosystem. This information assists in targeting the conservation and backup Indian measures for combating the cases of illegal logging and thus maintaining the country's forests.

Drones are also used in handling disasters that are occasioned by natural occurrences which have been on the rise due to climate change. In cases of floods, drones provide accurate information of the flood levels the information that can help the authorities to make decisions regarding evacuation and other disaster related matters. Drones are employed in the assessment of the areas that require humanitarian interventions especially after an earthquake.

Furthermore, drones assist climate study in monitoring areas such as glacier and sea level change extent across the states having an enormous coastline of around 7500 km. It is thus important to obtain such information in the fight against climate change and formulation of measures to avoid worst-case scenarios for sections of the globe situated along coastlines.

5.2 Pixels to Insights: Drone-Generated Data

Data captured by drones is not limited to imagery; it encompasses thermal, LiDAR data and hyperspectral data. The huge amount of data is analyzed by machine learning algorithms to produce useful information on climate change and potential solutions.

Modern applications of drones include agriculture where drones fitted with multispectral cameras assess the health of crops by identifying nutrient deficiencies or emergence of pests. Such knowledge helps to use all resources to the maximum and enhance yields in agriculture with no harm to the environment.

Furthermore, drone technology is used for tracking air quality with the aim of analysing the origin of pollution as well as the efficiency of measures taken to combat pollution. This real-time data is useful to help the policy makers to intervene effectively a major problem experienced in urban India; that of air pollution.

They also ensure disaster resilience especially through generation of very accurate 3D maps of disaster impacted areas. These models help in channeling funds in reconstructing affected areas and enhancing disaster response strategies. Following is evidence where India has geared up for the use of drones in climate action under National Drones Policy. The following policy will help in order to standardize the operations of drones with a view of

enhancing their safety and efficiency in the preservation of the environment and management of disasters.

Drones have turned out to become the protector of sky of India for providing important data and reports of climate as well as for disaster management. It's essential in the fight against climate change, and its effects because of the access they have to locations that might be hard to reach, combined with numerous sensors and data processing power.

VI
India's Global Climate Diplomacy

As indicated by analyses above, India's commitment to fight climate change is not only domestic but involves global action because the issue is global.

6.1 Leading from the Front: India's International Commitments

The current section focuses on India's contribution to the foreign climate policy, which proves the country's determination to address the global climate change issues on a larger scale with more significance.

Given the fact that India is one of the largest and most populated countries in the world, its climate change related measures have relatively high impact on the global level. This is an important point understood by the country's leadership as they have contributed significantly towards setting examples for other countries in major climate change talks and high level negotiations and agreements.

India has been one of the most proactive members when it comes to the international climate strategy involved especially the Paris Agreement which is under the United Nations Framework Convention on Climate Change or the UNFCCC for short. This provided India with the policy commitment of the highest order: to hereby reduce its carbon intensity and by 2030, to significantly ramp up the share of non-fossil fares in its energy mix. This target indicates India's commitment to change the economy towards low carbon sustainable development future.

Further, India has been an active supporting nation for developed countries to provide finance on the lines of climate justice to help developing nations to combat climate change and its impacts. India's stand is based on equity that states that the countries that emitted

more greenhouse gases in the past are prejudicing other nations, particularly the developing countries in this case. This propounded India's stand for fairness and accountability for climate change actions across the globe.

6.2 Regional Powerhouse: India's Climate Influence

Indian role in climate diplomacy is not the contribution to the international climate treaties; it is and goes much deeper, making the country a leader of the climate cooperation in the region. Becoming a leader of the region, India engages in such a process which promotes cooperation between the countries of the region against climate change. The well-known among them is the International Solar Alliance (ISA) which was launched by India and France.[11] This association calls members with countries located between the Tropic of Cancer and Tropic of Capricorn with aim of using solar power to phase out fossil energy. The ISA is the perfect demonstration of India's continuous efforts and dedication towards promoting regional climate partnership and sustainable energy approaches.

Apart from solar energy, India is also a supporter for 'building back better' approach towards climate change in the South Asian region. India also enjoys active cooperation with its neighboring countries under the vigorously participating in the SAARC forum. This platform has the purpose of entailing collaboration on matters concerning climate change adaptation and managing of risks that are associated with the same. The leadership demonstrated by India in the framework of SAARC shows the country's willingness to share its experience, tools, and best practices in addressing climate-related issues that are relevant to a number of countries of the region.

Apart from the South Asian countries, India has also been working closely with quite a number of African countries for enhancing climate resilience and a sustainable world. They range from varied areas of development such as the renewable energy sector cooperation to projects that are focused on capacity development. India's partnership with African countries is quite consistent with its focus on the South-South cooperation in the climate change efforts. In this way India not only enhances its own climate resilience but it also assists other developing countries who are also

[11] "About ISA", International Solar Alliance (ISA), *available at*: https://www.isolaralliance.org/about, (last visited on September 24, 2023)

The principle of India Still actively promotes policy on technological transfer and effective climatic capacity in the developing world weather diplomacy India speaks of the imperative to address the digital gap focusing on the capacity to provide technologies that are cleaner and sustainable for use in different countries. Through technology transfer, India enables the developing nations acquire the arsenal necessary for realization of sustainable development, India as full and active participant in climate diplomacy supports its status of successful and important global actor. India being an active member of the international organizations and regional integration, sets an example by entering into various international agreements and regional cooperation for the single output of making the nations join hands to tackle the challenges of a sustainable and climate resilient world.[12] The ways India has contributed in climate diplomacy demonstrates the country's initiative and encourages emulation of the system were tackling one of the significant problems in the current generation – climate change – should be a shared responsibility.

VII
The 2023 Agenda: Tech-Powered Climate Resilience

In this section, the author explains the 2023 climate agenda, especially as regarding the impact of technology in climate change and the development of measures to enhance climate resilience globally.

7.1 Era of 2023

As climate events get more frequent and severe as they are, the need for successful and unique solutions is more prominent. Technology will become the main driver for the goals set in the climate agenda for the year 2023 since climate change is already a big challenge in the world.

India as seen that country with a lot of technological advancement has been a key player in pushing for this agenda.

Therefore, one can state that it is quite obvious that the given country is committed to leveraging new technologies to increase the climate change resilience as far as its visionary

[12] "Technology Transfer and Capacity Building", United Nations Framework Convention on Climate Change (UNFCCC), *available at*: https://unfccc.int/topics/technology-transfer-and-capacity-building, (last visited on September 25, 2023)

policies, strategic collaborations, and preventive measures are concerned. The 2023 climate blueprint is structured around several key pillars, each rooted in technological innovation:

The 2023 climate blueprint is structured around several key pillars, each rooted in technological innovation:

1. **Carbon Neutrality:** The goal of the emission reduction has been laid down as one of the most significant aspects of air pollution and climate change by 2023 agenda and reaching the carbon neutrality. The paper also has established that the nature of India's strategy of achieving carbon neutrality involves a-pipe decarbonization at industries, b-pipe transition to renewable energy sources, and c-hexagonal energy efficiency.
2. **Things adapted:** India is investing a lot of resources in next generation dynamic climate models as well as early warning systems for extreme climatic events. Large-scale afforestation and wetland, restoration activities are equally being proposed as ways of providing climate mitigation adaptation and building up of resilience.[13]
3. **Green Finance:** Raising fund to the climate change projects is another key feature that will shape the 2023 global developments. India is constantly demonstrating an interest to grow green finance through using green bonds and climate focused investment vehicles. These instruments are necessary for financing generation scale renewable energy and climate change resilience initiatives so that India can sustain the progress that it has been making in the sustainable development area.
4. **Circular Economy:** A major focus within the context of the 2023 climate strategy has concerned the fostering of a circular economy that aims at using fewer resources as well as producing little waste. At present, India is one of the most progressive countries in adopting circular economy initiatives in many sectors including manufacturing and agriculture. All these measures in waste to energy conversion, recycling, sustainability and green manufacturing are instrumental in making a functional circular economy possible for India.

[13] "National Mission for Green India (GIM)", Ministry of Environment, Forest and Climate Change, Government of India, *available at:* https://main.icor.gov.in/icor/index.php?page=gim, (last visited on September 28, 2023).

7.2 A Tech-Infused Climate Revolution

India's climate agenda for 2023 is a good example of its commitment towards fostering a tech revolution for climate change. Even as the country struggles to achieve its set targets, it engages a number of parties both at national and international level to push for changes in climate change resilience. Climate smart technologies are the results of great partnerships that the Government of India has cultivated with leading technology firms and research institutes. For instance, some integrated efforts with organizations such as NASA has strengthened India's climate surveillance systems. Such partnerships give the researchers a possibility to obtain the unique Earth observation data, which is critically important for climate change simulation, the assessment of disaster risk, and strategizing long-term environmental management.

Besides, India has increasingly taking an active role in international climate change platforms such as the G20 and the BRICS, thus increasing its leverage in influencing climate change policies on the international level. India has been one of the major proponents of technology transfer, provision of financial assistance to the developing nations, and even linking climate change in trade relations. These efforts catalyze Indian's efforts to ensure that all countries shall have the resource and technology in fighting climate change.[14]

The 2023 climate agenda may be considered as a key calendar point of the climate change process. India's technology intensive model for climate adaptation in fact shows the country's resolve to face the climate issues head on. Carbon neutrality, resilience-building, finance-oriented approach, circular economy, and green future are the concepts that India lays the foundation for creating a sustainable future that is based on innovation, collaboration, and, most importantly, responsibility.

VIII
Tech in the UNFCCC Arena

Functions of the United Nations Framework Convention on Climate Change (UNFCCC) Main climate related negotiations and international cooperation occur under UNFCCC.

[14] "NASA's Earth Science Division Missions", NASA Earth Science Division, *available at:* https://science.nasa.gov/earth-science/missions, (last visited on September 25, 2023).

8.1 India's High-Tech Footprint in UNFCCC

In this critical space, India has always stood out as a trendsetter by incorporating technological innovation into its climate negotiations besides mainstreaming the principles of fairness and justice. This section examines India’s technological engagement within the UNFCCC and cooperation on the international level.

India's Climate Diplomacy: , and Supporting and Sustaining Technology as discussed earlier in this paper, are proposed as technology-supported approaches in a technology age. India’s attendance at the UNFCCC means much in proving its seriousness in implementing climate change technology. If there is one thing that India’s climate diplomacy is well rooted in, then it is in the belief that technology can indeed help make the world and develop faster while overcoming the obstacles that developing country face. India has been at the forefront of calling for implementation of such state-of-the-art products Into international climate policies.

As stated above; the biggest stand that has been taken by India towards the UNFCCC is on the aspect of transfer of technology. India realizes that in order to mitigate and manage the impacts of climate change, there is need to use advanced technologies that are also eco-friendly. Therefore, India has always posed the question of technology equality where the developed countries should help the developing nations to acquire as well as adopt climate friendly technologies. This advocacy speaks to the need to reduce the ‘technology divide’ as a factor towards the fight against global warming.

Apart from promoting the concept of technology transfer, India had an important role in the international forum in debates on climate finance. For quite some time now, it has advocated for the provision of more capital to developing countries so they can finance the transition to clean power, infrastructure for adapting to climate change, and sustainable activities. In demanding proper financial aid, India not only looks for its own self-interest but also makes sure that climate-endangered countries do not lose the climate change related change they have been fighting for.

8.2 Technology Partnerships on the Global Stage

By participating in the international climate partnerships, India has increased its role of pushing for tech-centered climate change solutions. The relationships with countries, global organisations and International initiatives underpin the country's constant efforts towards striving for a global impact on climate change.

One rather recent example of such an approach can be seen in India, a country which practically fully embraced the principles of the ISA – International Solar Alliance[15]. Co-founded by India and France in 2015, the ISA's primary objective is to accelerate the use of solar energy and further bring down the cost of solar projects.

Being a founding member, India also participates in processes that support the use of solar technology and implementation processes with intent on enhancing its role in the provision of sustainable energy all over the world.

Furthermore, India is actively participating in the Coalition for Disaster Resilient Infrastructure which is a center for an application of technology for disasters and resilience. Developed during 2019 UN Climate Action Summit, the CDRI aims at increasing the resilience of infrastructure systems in the face of climate risks. India's leadership in this coalition showcase the country's commitment towards out of box solutions that could keep many vulnerable communities safe from the effects of climate change related disasters.

India's interaction with climate technology does not stop at diplomacy and partnerships. The country has come a long way in presenting own unique inventions in combating climate change that has the ability to impact the whole world.

An impressive example of growth is the invention of solar photovoltaic cells which India has embarked on working on in such a manner that it was becoming cost efficient and reliable. All these advancements in solar technology will go a long way in reshaping the solar energy market since solar power generation will be within the reach of many people. India's advancement in these area firs with the goal of the country's renewable energy plans and reflects the country's intent on increasing its clean energy generation capabilities.

[15] "About ISA", International Solar Alliance (ISA), *available at:* https://www.isolaralliance.org/about-isa, (last visited on September 26, 2023).

Further, the measures taken by India in green hydrogen have attracted attention from many countries in the world. Instead, the use of green hydrogen – residual product of water electrolysis by means of renewable energy sources – can create vast opportunities for cutting carbon emissions. Several expectations and development in this field has been attributed to Indian research and development making the country a potential exporter of green hydrogen and plays a critical role in achieving hydrogen economy. Overall it can be said that tech-savvy climate diplomacy of India in the UNFCCC environment is a brilliant example of its global stewardship in a direction of advancing equitable, innovative and sustainable development.

Thus, India can be seen as contributing to the development of an effective international response to the climate crisis through such measures as promoting technology transfer, calling for climate finance, and participating in international cooperation. Also, its attempts to create and present innovative technologies prove that it is a company that is committed to making the necessary changes in the face of climate change.

With India aspiring to project itself as a world power, concern for technology-intensive climate change mitigation does not seem to be fading away in the country. This dedication has helped strengthen the belief that solutions lie in the coming up with the latest technologies that would fit the climate change challenges. India is proactively participating in frequent global climate forums and has been investing in superior specific techniques which, thus makes India a symbol of hope to a sustainable, advanced technology based climate change.

IX
Climate Justice through Innovation

Concerning global climate change fight, the issue of climate justice has emerged as a major idea to achieving successful climate change combating strategies in a more equitable manner.

9.1 Bridging the Climate Gap: Tech for Equity

Climate justice emphasizes on preventing climate change in a manner that is equitable taking into account the levels of contribution of individual countries as well as the sensitivity of the

global communities.[16] Within this framework, technology can be seen as the key to bridging the climate gap and thus making climate change intervention a fair and an equitable process across countries or within the developed and developing country contexts.

a. Equitable Access to Climate Technologies

Another important concept of climate justice is that Credits and instruction towards climate friendly technologies should be provided equally to developing as well as developed world. Technology transfer has for long been advocated by India as a way of achieving this level of equity. The rationale behind this stance is straightforward: Those nations that have been culprit in emitting more greenhouse gases to environment to have to come with concrete ways of aiding developing nations to adopt technologies that are friendly to climate.

India's approach to technology transfer is perfectly commensurate with the principles of climate justice as it accepts the fact of developed countries' higher emissions and corresponding responsibilities. In supporting the deployment of advanced climate technologies across the world, India stands to defend the notion that should developed countries cooperate and facilitate access to climate technologies, all the countries in the world should be able to partake in sustainable development taking into consideration the various concrete climate problems that they are facing in their respective countries.

b. Innovation for Vulnerable Communities

Climate justice is not a concept that only refers to diplomatic procedures but also refers to effective measures on the ground especially for the upliftment of the affected vulnerable groups of people. In India finally, to safeguard the rights and their occupations, such tactics are being pioneered for these area populations which are the early most sufferer groups of climatic changes.

One of such innovation is community-based climate adaptation.[17] It has been found that India is coming up with sustainable efforts that meet the ecological challenges it is facing which include; cooperation with other stakeholders such as the locals and government institutions as

[16] "What Is Climate Justice?", United Nations Climate Change, *available at:* https://unfccc.int/climate-action/momentum-for-change/what-is-climate-justice, (last visited on September 30, 2023).
[17] "Climate-Smart Agriculture in India", The World Bank, *available at:* https://www.worldbank.org/en/news/feature/2021/10/06/climate-smart-agriculture-in-india, (last visited on September 28, 2023).

well as collaboration of the technological systems with traditional knowledge. This approach does not only improve the overall disaster- risk reduction of these communities but also enable them to protect their sources of income from effects of the weather conditions. Another bright example of innovation for climate vulnerable populations may be India's initiatives in climate smart agriculture. Climate-smart agriculture as a farming technique together with advanced technologies helps farmers of India withstand the changes in weather conditions and annual rainfall. They have been used to control the health of soil, improve on methods of watering and even increase the yield on crops grown. These are crucial in increasing food security in the areas that are most affected by impacts of climate change.

9.2 Vulnerability to Resilience: Innovations in Justice

The increasing impacts of climate trends are found to have forced India to pick the pace of innovation that converts vulnerability into resilience. The need for infrastructure is climate resilient. Since infrastructure can play an essential role in adapting with climate, India has lately begun to invest in designs and developments of structures and materials that can bear extreme weather conditions.[18] This strong infrastructure focus helps better adapt the communities to face as often and severe climate-related disasters are now experienced with almost regular frequency.
Renewable energy solutions are now becoming increasingly decentralized in India, allowing rural and off-grid communities to be empowered. Renewable solutions like mini-grids and microgrids powered by solar and wind energy help ensure reliability access to clean energy for regions that rely on fossil fuels after years of that dependence. This greatly contributes to emission reductions while enhancing energy equity and sustainable development. India, through innovation, has demonstrated unrelenting commitment to climate justice and, hence, for climate change both at the global and local levels. Ensuring continued campaigning for technology transfer and access to climate technologies in an equitable manner, India strives toward the establishment of a comprehensive framework under which all nations may participate proactively for action in response to climate change.

There are the grassroots innovations of India-the empowerment of vulnerable communities to change and build resilience against climate risks. Innovations that not only guarantee

[18] Climate-Resilient Infrastructure", National Disaster Management Authority (NDMA), Government of India, *available at:* https://www.ndma.gov.in/en/climate-resilient-infrastructure, (last visited on September 30, 2023).

livelihoods but also form the core principles of climate justice: emphasizing the most exposed to climate change, which inhibits adverse effects.

X

Eco-Tech Entrepreneurs

In the quest for climate resilience for India, eco-tech entrepreneurs form the top tier.

10.1 Tales of Green Innovators

In the quest for climate resilience for India, eco-tech entrepreneurs form the top tier. These visionary individuals and startups are on the front lines of innovative solutions aimed at solving environmental issues while boosting economic growth. Their stories highlight the power of entrepreneurship and technology in launching sustainable change.

Eco-tech entrepreneurs in India are motivated by a keen sense of stewardship for the environment and responsibility toward pressing ecological issues. They realize that climate crisis represents not only a challenge but also an opportunity for innovation and new business. One such entrepreneur is Rohan, the founder of a start-up venture focused on decentralized water purification systems.[19] He focused all his attention first on the crying need for pure drinking water in rural communities. By using his engineering background, he developed an affordable, solar-powered water purification device that operates off the grid. This innovation has brought safe drinking water to thousands of households at the same time reducing plastic waste from bottled water.

10.2 Startups Pioneering Climate Solutions

In India, a number of start-ups are working on solving this dilemma, from revolutionary technologies and innovative business models to new ways of reducing emissions, advancing renewable energy, and improving environmental sustainability.

There are environmental and economic start-ups on green transportation headed by Anjali. In view of increasing pollution from conventional auto-rickshaws in urban settings, she has put together an electric fleet of not only environmentally conscious but also economically viable

[19] "Precision Farming", Ministry of Agriculture and Farmers Welfare, Government of India, available at: https://www.agriculture.gov.in/precision-farming, (last visited on September 28, 2023).

auto-rickshaws. Due to this initiative, she has been able to ensure a marked reduction in air pollution, and employment and sustenance of local drivers. Some of them include sources of funding, navigating complex regulatory environments, and creating a market for sustainable goods and services. For example, the Indian government and others have enacted initiatives geared to nurturing and developing eco-tech ventures.

For example, NIF, the National Innovation Foundation, provides grant and mentor support to grass roots innovators to develop and bring their innovation into the market. Another industry-led initiative is the platforms designed and developed by the Confederation of Indian Industry to connect with the right investors and industry leaders for the eco-tech entrepreneurs.

Innovation in eco-tech can grant Indian innovators a partial status of taking the centrestage position of climate change fighters. This way, while reducing critical environmental issues leads to economic growth, it also proffers employment opportunities. The journey toward becoming climate resilient and sustainable is led through the nurturing of entrepreneurship culture and supporting the development of eco-tech start-ups.

These entrepreneurs showcase how climate action goes beyond being a government and corporate affair. Innovators and startups, in fact, are the backbone for innovative solutions that achieve huge impacts for both the environment and society. The successes of such entrepreneurs inspire a new wave of eco-conscious entrepreneurs to speed up India's eco-tech revolution.

XI
A Sustainable Tomorrow

As India walks on the mileposts into a sustainable tomorrow, what is envisioned ahead is a greener tomorrow and one more knowledgeable as regards the environmental dimension.

11.1 A Glimpse into India's Eco-Tech Future

This section encompasses exciting prospects and new innovations that are crucial in making India sustainable and resilient.

11.2 Charting the Path Forward: Sustainability for Generations

The Indian Govt. has taken a highly integrated strategy where technology, policy, and sociological transformation are seen working together with one another. It wants to preserve the rich natural inheritance of India and at the same time fuel economic growth. One of the big ticket items of India's future is the mass assimilation of electric vehicles. This includes tax advantage and building charging infrastructure. These steps generated immense interest in the whole automotive industry leading to the production of a wide range of EV models[20], suitable for Indian conditions.

Projects like improving traffic management, conserving water, and increasing green spaces have been initiated here to make the life of its citizens even better while creating an example for other Indian cities to follow.

For example, a state like Gujarat has emerged as one of the leaders for solar adoption and is also along with massive solar parks producing clean energy. With their potent sunlight, Gujarat not only meets its energy needs but contributes to reducing carbon emissions.

Many environmental organizations and educational institutions in India educate students about climate change, biodiversity, and practicing sustainable exercises. This serves to empower the coming generation of young citizens as environmental stewards and, above all, as change agents within their communities. A sustainable future in India is an available future, not a distant hope; it's being shaped by innovation, policy, and collective action. Electric vehicles, smart cities, renewable energy, and environmental education are part of the jigsaw puzzle under construction for a sustainable future for India. The country stays at the top since it is inventing in eco-tech, being a global champion of climate action, and inspiring its nationals to live in a sustainable manner. It, in doing so, sets an example for the whole world. India aims for a sustainable tomorrow that's not just national pride but a beacon of hope for the world in distressful times when the battle is desperately waged against the challenges posed by climate change.

[20] "Automakers Make a Beeline to Launch Electric Vehicles in India", *Business Standard*, (2023), *available at:* https://www.business-standard.com/article/economy-policy/automakers-make-a-beeline-to-launch-electric-vehicles-in-india-123071000724_1.html, (last visited on September 29, 2023).

XII

Beyond Borders: Sharing India's Tech Wisdom

International leadership in eco-tech innovation and tremendous advancement toward a sustainable future; India has received enormous recognition at the international level.

12.1 Tech Diplomacy: India as a Climate Tech Beacon

By spearheading pioneering initiatives pertaining to climate change, India is equally giving out its knowledge and cooperative spirit with the rest of the world.

12.2 Collaborative Horizons: Spreading Tech Solutions Globally

India's dedication to combating climate change extends well beyond its national borders. The country actively engages in global collaborations, leveraging its technological prowess and forming partnerships aimed at addressing worldwide environmental challenges. One such international cooperation that has featured as a prime example is International Solar Alliance (ISA). Co-founded by India and France, ISA promotes adoption of solar energy and helps reduce dependence on fossil fuels in the countries blessed with abundant sunlight. The alliance offers the opportunity for knowledge sharing, transfer of technology, and capacity building, which makes this empowerment possible for member nations to effectively use solar energy and transition toward more sustainable energy practices.

a) Tech Diplomacy in Action

India uses tech diplomacy very effectively in the major climate conferences, where it pushes technology-driven solutions towards combating climate change. In its campaign at the Conference of the Parties (COP) under the United Nations Framework Convention on Climate Change (UNFCCC), the Indian delegates stress the urgent need for the creation of the mechanisms of technology transfer and support toward developing nations. Advocacy for this is important to ensure all countries gain access to the tools and the technologies needed to fight climate effectively. Besides, India is engaging other members of IORA to combat climate change and promote sustainable development. Initiatives like IORA Blue Economy Core Group involve member countries in exploring opportunities for sustainable growth while working to preserve the ecosystems of oceans. This collaboration speaks to India's commitment to regional and global stewardship.

b) International Influence: Cooperation in Technology

The climate partnerships that India has developed stretch out from just being climate conferences and symbolize participation in joint development throughout the world. For example, there has recently been a strategic partnership between India and Japan on advancing green hydrogen technology through the integration of India's renewable energy source base with Japan's advanced production expertise on hydrogen[21]. At the same time, innovative urban mobility solutions are developed between India and Germany. Since the whole world is undergoing fast urbanization and developing cities, India and Germany team up to work on sustainable transportation systems that reduce emissions in any city. India and Germany pioneer by introducing green technologies into the city infrastructure for a greener future with sustainable development of urban areas.

c) Eco-Tech Diplomacy: A Path Forward

Well, India has been an ally nation working towards a richer and stronger planet. At a time when climate change continues to challenge the world at large, this eco-tech diplomacy by India showcases potential innovation that cuts across borders. The efforts of the country in sharing knowledge, building international partnerships, and promoting technology-driven climate action establish it as a trendsetter around the world in matters of environmental innovation. By actively engaging in international climate initiatives, and by providing assistance to other countries, India serves its own climate needs and becomes a participant in the positive collective efforts against the evils of climate change. The spirit of cooperation and innovation continues by showing the inherently collaborative nature of sustainable futures, thriving on shared efforts and joint action. Visible in the case of eco-tech diplomacy, India asserts that it is a global move toward sustainability. This engagement as a country through innovation and collaborative problem-solving testifies to the capability of people working together in overcoming some of the great challenges of climate change.

[21] "India and Japan Join Hands for Development of Green Hydrogen Technology," Press Information Bureau, Government of India, (July 2021), *available at:* https://pib.gov.in/PressReleseDetail.aspx?PRID=1732056, (last visited on October 2, 2023).

XIII
Conclusion and Suggestions

1. Eco-Tech Revolution- The Driving Force behind Climate Change

India is perhaps one symbol of hope and innovation in the fight against climate change, since it uses technology as a productive force toward a greener future. In this sense, this paper expands on India's impressive journey through its eco-tech revolution, where hi-tech meets environmental stewardship in overcoming challenges resulting from climate change.

2. Call to Action and Embracing Innovation for a Greener India

It is only because the landscape of eco-tech in India is so diverse and full of life that such urgency for action would emerge. From the expansive solar farms absorbing the radiance of sun to wind turbines capturing airflow, India's efforts to harness renewable energy have opened doors for the country to lead its way into a green future.

3. Aspire to Climate Resilience with AI and Drones

AI and climate resilience is a great example of the technological prowess of India. AI gives invaluable insights into forecasting the impacts of climate in advanced predictive algorithms and data analytics.[22] It allows decision-makers to design effective strategies in the face of the forces of nature and thereby builds robust community resilience. Drones collecting real-time data from aerial facilities also play a vital role in monitoring climate and adaptation. These aerial devices offer information in climatic patterns, environmental management, and disaster management; therefore, advancements in drone technology create the perfect cornerstone for efforts to build climate resilience.

4. Climate Diplomacy

It is an enormous country with a significant presence in the climate play at the international level. India, being one of the major climate diplomats, etches all the international climate commitments and encourages regional collaboration. The agenda for climate actions in the year 2023 forms a techno-potential contribution by India, underlining that innovation has a

[22] Gunjan Gautam "Machine Learning for Smarter Climate Decisions" 40(2) *Environmental Technology* 110, 115-118 (2021)

critical role in finding best-fit climate policies and strategies. India has successfully placed itself at the cutting edge of climate advocacy and further technological advance, this being done proactively.

5. Creative Climate Justice Solutions

Climate justice is intrinsically tied to technological innovation. Technology can be the glue that connects to alleviate climate disparities as it ensures vulnerable populations receive the resources needed to build resilience and adapt.[23] It is very reflected in countries such as India through decentralized clean energy solutions and pioneering agricultural practices. These innovations represent a pathway to achieve climate equity and demonstrate how technological gaps could be bridged to impact the most affected communities.

6. Eco-tech visionaries' community of entrepreneurs

Eco-tech in India could provide great platform space for an energetic green innovator community that supports and shows the way forward in the practice of green innovation. These entrepreneurs are manifestations of India's innovative spirit, bringing sustainable solutions that have solved local problems with global implications. Their contributions only go to underscore how entrepreneurship is a thrust mechanism for advancing eco-tech solutions toward a more sustainable future.

7. Scaling Green Tech for Mass Impact

It becomes very important for the policy measures of India in the pursuit of scalable solutions to address climate change. Phases such as provision of financial incentives for the adoption of renewable energy and planning of sustainable urban mobility take up the core of spreading it, so such policy measures act as catalysts for inducing impact, a combination of which is significant and broad-based, in the fight against climate change.

8. Mapping the Future and Sustainability for Generations

The way towards a sustainable future is well-defined but, at the same time, challenging. Yet the effective passage requires collaboration across national and international borders.

[23] Rajesh G. Burbade, "Green Technology in Agriculture: Tools and Technologies that Drive Sustainable Indian Agricultural Development" 20(4) *Sustainable Agriculture Journal* 60, 65-68 (2021)

Collective endeavors, knowledge sharing, and technology transfer between nations shall be extremely crucial to achieve the unified vision of global climate resilience. Such collective efforts would constitute the guts of designing a resilient and sustainable future for generations coming next.

9. Eco-tech revolution

A forthcoming example of India that inspires the world is the eco-tech revolution, demonstrating the way innovation can be a transformative power for reducing climate-related challenges.

In this paper, there are actionable insights and recommendations for concerted effort towards embracing innovation as the driving force behind a greener India and a more sustainable planet. Together, we need to utilize the possible qualities of technology for the betterment of our future environment and society.

EXAMINING THE CONTRIBUTION OF THE JUDICIARY IN PROMOTING GENDER EQUALITY IN INDIA

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Abstract

In contemplating the matter of self-reliance and leadership evaluations, it becomes apparent that a certain inclination towards favouring women emerges. This observation beckons us to delve deeper into the intricate fabric of societal dynamics, where the interplay of gender roles and expectations intertwines with the perception of self-reliance. In the realm of societal evolution, it is evident that women are progressively attaining a heightened sense of autonomy, as they increasingly find themselves relying upon remunerative occupations for the equitable distribution of their financial resources. In contemplating the dynamics of leadership, one finds oneself pondering the notion that women who possess a profound sense of self-reliance are apt to excel in this domain more so than their male counterparts. In contemplating the matter at hand, it becomes evident that leaders who possess dominance or exhibit positivity, devoid of any distinct agentic trait, may or may not possess an inherent advantage in their male identity. In this discourse, a profound metric is unveiled, elucidating the intricate tapestry of the Indian judicial system and its profound reliance upon the sagacious principles laid forth by the founding fathers of the Indian Constitution. This metric serves as a beacon, illuminating the path towards the noble ideals of justice, liberty, dignity, and beyond. In the realm of societal dynamics, it is not surprising to witness a profound surge in the realm of women's self-reliance while simultaneously observing a marginal decline in the self-reliance of their male counterparts, as revealed by the current population survey. The ever-evolving trends of our time have undeniably exerted a profound influence on the intricate tapestry of family dynamics and the intricate web of resource allocation. Consequently, the ebb and flow of these trends have engendered a simultaneous augmentation and diminution of self-sufficiency, particularly for both genders, albeit with a

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more pronounced impact upon the fairer sex. The tripartite nature of governance, with its three wings, has undeniably exerted an equitable influence upon the system. The discourse at hand delves into the profound contemplation of the judiciary's pivotal role in the ceaseless evolution of women's rights subsequent to the attainment of independence.

Keywords: Gender Equality, Women Empowerment, Self-Reliance, Judiciary, Social Barriers, etc.

I.
Introduction

In the vast majority of civilizations, it is not simply a matter of possessing particular biological or physical characteristics that determine a person's gender. Instead, there are a variety of expectations placed upon men and women regarding how they should act, dress, and do their jobs. Whether in the family, the workplace, or the public sphere, the relationships that men and women have also reflect their understandings of the talents, traits, and behaviours that are appropriate for women and men, respectively. Sex and gender are not the same thing because gender is controlled by social and cultural variables, while sex is influenced by biological elements.

The concept of gender equality in India refers to the equitable distribution of resources and opportunities among all individuals. This involves political and economic engagement, decision-making, and rewarding gender-neutral behaviours, goals, and demands. Gender equity and gender neutrality help achieve gender equality. Gender parity is a way to determine if a setting contains an equal number of men and women, a step towards gender equality but not the end aim.

We hypothesise that women have a distinct advantage when it comes to the link between self-reliance and leadership assessments. Women are now more economically independent than they were in the past, and their places in the income distribution are based on paid work rather than unpaid labour. Independent and self-sufficient female leaders are seen as more effective leaders than independent and self-sufficient male leaders. On the other hand, whether we look at dominating leaders or positive leaders who aren't defined in terms of a particular agentic attribute, we find that there is either a gender advantage for men or none at all.

Equal treatment of the sexes is a moral, ethical, social, and economic issue. Gender equality boosts mankind and a nation. Many studies have found that men are treated better in circumstances of gender discrimination, especially at work. Women's professional and mental health suffer from society's gender inequality. Despite India's laws on rape, dowry, and adultery protecting women, numerous very discriminatory practises continue at an alarming pace. Egality is ideal. For additional growth goals.

II.

Gender Equity vis-a-vis Gender Equality vis-a-vis Women's Empowerment

Every child should be given the opportunity to reach his or her full potential, but gender inequality among those in positions of authority and those who care for children can put up roadblocks.[1] Every day, girls and boys in India, no matter where they reside, are exposed to examples of gender inequality in their surroundings. People have had unfair ideas about men and women for thousands of years, and these ideas still hurt the lives of both men and women. Despite the fact that gender inequality is still prevalent in India, the Indian Constitution guarantees equal rights for men and women.[2] This prejudice against women has a long history in Indian society, which has made women its primary targets. In a country where women are revered as deities, the same nation is responsible for countless acts of violence and discrimination. That is an unfortunate reality that society must face.

Fairness towards both men and women is what we mean when we talk about gender equality. It is imperative that women have access to strategies and procedures that may compensate for the social and traditional disadvantages they face. Equality is achieved via equity. The principle of gender equality generally requires that both women and men derive equal enjoyment from the same socially esteemed goods, opportunities, resources, and rewards. If there is a lack of gender equality, women are often barred from participating in or put at a disadvantage during the decision-making process, and they have easy access to economic and social resources. Hence, empowering women should be considered an essential component of efforts to advance gender equality. This component should centre on addressing power inequalities and increasing the amount of control that women have over their own lives as well as society as a whole. Women deserved to have liberty that was independent of and

[1] Gender Equality, UNICEF, "Accelerating Progress and Opportunities Across India For Every Girl and Every Boy", *available at*: https://www.unicef.org/india/what-we-do/gender-equality (last visited on: 04.01.2024).
[2] *See*, Constitution of India; Article 14, 15, 16, 39, 51A, 243 & 325.

unrestricted by any gender prejudices that may exist in society. The empowerment of women is crucial for attaining gender equality as it guarantees that males are not the sole arbiters of decision-making in personal and public spheres, as well as access to resources. It is possible for women and men to engage equally as equal partners in all aspects of a fruitful existence. The policy of the Central Government in 2019, which proposed to grant permanent commission solely to female officers with less than 14 years of service on the basis of physical limitations of senior female officers, was deemed to be in contravention of their fundamental rights.[3]

When there is a gender pay gap, it is crucial to acknowledge that, women are often excluded from the process of decision-making and have less access to economic and social resources. The country that has achieved gender equality is also the one that has achieved national development. In order for India to be a thriving country, gender equality is an essential component that must be present. For this reason, advancing gender equality in India is a crucial component of the process of empowering women.

III.
A Fundamental Constitutional Commitment to Gender Equality

The elucidation of the constituent assembly's cognitive aperture, which may manifest the ultimate purpose for which they convened to shape the Constitution, as articulated in the Preamble of our Constitution. The rights and freedoms that the Indian people wished to protect for all citizens are spelt forth in this document in the form of a declaration. The line *"We the people of India..."* is included at the beginning of the Preamble. This phrase refers to men and women of all castes, faiths, and religions in India. Its goal is to ensure that every man and woman has *"equality of position and of opportunity."* The *"dignity of persons"* is reaffirmed many times throughout the preamble, and this is not an exception in the case of a woman. Following the basic structure doctrine as established in the case of *Keshvanand Bharti* v. *State of Kerala*[4], numerous significant laws were enacted and implemented. These laws encompass many facets of life, such as family, succession, guardianship, and employment, and they aim to safeguard the status of women with their entitlements and respect in society. In *C. B. Muthamma* v. *Union of India*[5], the court invalidated a service rule

[3] *Secretary, Ministry of Defence* v. *Babita Puniya & Others*, 2020 SCC OnLine 200.
[4] (1973) 4 SCC 225, *See also*, *Shankari Prasad Singh Deo* v. *Union of India*, 1951 SCC OnLine 59, *Golak Nath* v. *State of Punjab,* 1967 SCC OnLine SC 14, *Minerva Mills Ltd.* v. *Union of India*, (1980) 3 SCC 625.
[5] (1979) 4 SCC 260

that gave the government the authority to fire a woman from the Indian Foreign Service if she got married without first receiving authorisation. The humanitarian document that serves as the foundation for all of our laws, the Constitution, is gender sensitive. The Constitution ensures women's entitlement to equal legal protection and empowers the government to implement affirmative discrimination measures aimed at assisting women in overcoming social, economic, and political deprivations.. For this purpose, it is appropriate to cite a number of constitutional provisions.[6]

Article 15(3) gives the state the authority to provide unique protections for people like them. The health and happiness of women is a topic of public concern, and achieving this goal is necessary to ensure the continued vitality and resilience of the human species. Because of this clause, the state has been permitted to enact specific legislative measures that are only concerned with the welfare of women.

According to Article 39(a), the state is obligated to orient its policies towards the goal of ensuring that all citizens, including both sexes, are entitled to a minimum standard of living. Article 39(d) says the state is required to orient its policies towards the goal of ensuring that men and women get equal remuneration for equal labour. The provisions of Part IV of the constitution receive their sustenance from Articles 14 and 16, and its primary goal is to establish a social order in the Indian Union that is egalitarian and welfare-oriented. The Equal Remuneration Act, of 1976, gave effect to these articles. This legislation prohibits discrimination on the basis of sex in the workplace and ensures that men and women employees are paid the same amount of money for their labour. In addition, the protection of the health and strength of employees, both men and women, is the purpose of the provisions in Article 39(e).

A provision that is highly significant and useful for the welfare and well-being of women may be found in Article 42 of the Constitution. It requires the state to make arrangements to guarantee reasonable and human working conditions and provide maternity assistance. This obligation is imposed on the state by the constitution. The Workmen's Compensation Act 1923, The Minimum Wages Act 1948, The Employees' State Insurance Act 1948, The Maternity Benefit Act 1961, The Payment of Bonus Act 1965, and other similar pieces of legislation all helped to promote the goals of these articles.

[6] *See*, The Constitution of India, art. 14, 15(1),15(3), 39(a), 39(d), 42, 46, 51-A(e), 243-D(3), 243-D(4), 243-T(3), 243-T(4).

In *Valsamma Paul* v. *Cochin University*,[7] it was determined that women's human rights include gender equality, which can be traced back to the CEDAW[8]. Human rights for women and girls are intrinsic, fundamental, and inseparable components of universal human rights. The holistic maturation of one's character, the fundamental liberties bestowed upon individuals, and the equitable participation of women in the realms of politics, society, economy, and culture are perceived as indispensable prerequisites for the advancement of a nation, the stability of its social fabric and familial structures, as well as the progression of its cultural, social, and economic spheres. The manifestation of discrimination, in all its various forms, predicated upon the distinction of gender, is an egregious transgression against the fundamental principles of individual freedoms and the inherent entitlements of humanity. Additionally, apart from being a constitutional entitlement, the attainment of equal standing for women has been acknowledged as a fundamental human right. In *Bodhisattwa Gautam* v. *Subhra Chakraborty*[9], the observation has been made that women possess the legal entitlement to be accorded due respect and to be treated as equals in the realm of citizenship.

The Court acknowledged in *Kharak Singh* v. *State of U.P.*[10] that a person has entire control over his physical organs. It also encompasses the total control a woman has over her reproductive organs. In *Vishaka* v. *State of Rajasthan*,[11] apex court took notice of the growing threat of sexual harassment in the workplace and elsewhere. In light of the inadequacy of legislation on the subject, the Court defined sexual harassment and issued guidelines for employers, and stated, *"Every instance of sexual harassment of a woman in the workplace constitutes a violation of her fundamental rights to gender equality and right to life and liberty."* In *Railway Board* v. *Chandrima Das*,[12] Indian Railway employees gang-raped a Bangladeshi national in a Yatriniwas room at Howrah Station. Since the crime was not committed while the railway employees were performing their official duties, the government argued, it could not be held liable under tort law. However, the Court dismissed this claim and ruled that the Union of India's employees, who are responsible for running the railways and overseeing the operation of the establishment, including the Railway Stations and

[7] (1996) 3 SCC 545.
[8] *CEDAW* refers to 'The Convention on the Elimination of All Forms of Discrimination against Women'. CEDAW calls for the abolition of all forms of discrimination against women and supports gender equality. The Convention was passed by the UN General Assembly in 1979, and women all around the world frequently refer to it as a "bill of rights."
[9] (1996) 1 SCC 490.
[10] 1962 SCC OnLine SC 10
[11] (1997) 6 SCC 241.
[12] (2000) 2 SCC 465.

Yatrinivas, are integral parts of the government machinery responsible for commercial activity. If one of these workers commits a tort, the Union Government for which they work may be held vicariously accountable in damages to the individual aggrieved by that employee, provided that other legal requirements are met. The court granted the woman Rs. 1 million in compensation for being gang-raped in a Yatrinivas of the Indian Railways. As the right is applicable to noncitizens as well, the right's scope is wide.

In *Inspector General of Police* v. *S. Samuthiram*[13], it was said that Article 21 of India's Constitution guarantees every person the right to live with dignity and honour. Sexual harassment, such as eve-teasing, is a violation of the rights to which women are entitled under Articles 14 and 15. Eve-teasing is now a destructive, abhorrent, and revolting behaviour. Failure to confront such a danger may have catastrophic results. There have been several stories of young girls being harassed, which may result in severe psychological issues and even suicide. The need for effective regulation to prevent eve-teasing is of the utmost significance. Noting the lack of effective universal legislation, further directives were given to combat the danger. To effectively oversee and regulate instances of eve-teasing, the aforementioned guidelines necessitate the assignment of undercover female law enforcement personnel within the proximity of railway-metro stations, public service vehicles, movie theatres, bus stops, parks, beaches, shopping malls, places of worship, and other relevant locations. The individuals entrusted with the oversight of educational establishments, places of worship, cinema halls, railway stations and bus terminals ought to undertake all requisite actions within their purview to thwart the occurrence of eve-teasing. Furthermore, it is imperative for them to institute women's helplines in diverse urban centres and exercise authority over instances of eve-teasing transpiring within public transportation vehicles, irrespective of whether the perpetrators are passengers.

In case of *Indian Young Lawyers Association* v. *State of Kerala*[14] presents a distinct example wherein the Supreme Court has incorporated an interpretation of Article 17 into the framework of 'access', particularly Article 15(2), thereby rendering it more amenable to enforcement. The practice of barring menstruating women from participating in religious activities and accessing religious sites on the basis of their perceived impurity during that period has been deemed discriminatory, comparable to the exclusion of marginalised castes as 'untouchables'.

[13] (2013) 1 SCC 598.
[14] (2019) 11 SCC 1.

In *Hotel Priya* v. *State of Maharashtra*[15], which is also about how dance bars are regulated, the court looked at a policy or rule that seemed neutral but hurt female performers more than male ones. This necessitated that the court consider the case from the perspective of class and gender intersections. The regulation restricted the availability of male and female dancers in nightclubs. The rule made it more difficult for women to work in dance clubs, even though both men and women frequent these establishments.

In *Voluntary Health Assn. of Punjab* v. *Union of India*,[16] while dealing with violations of the Pre-Conception and Pre-Natal Diagnostic Techniques (Prohibition of Sex-Selection) Act, 1994, emphasis was also placed on the practice of female foeticide in addition to issuing a series of directions. In this particular instance, it has been posited that the practice of female foeticide finds its origins in a social mindset that is fundamentally predicated upon fallacious beliefs, self-centred customs, distorted interpretations of societal standards, and an unwavering fixation on notions that are entirely self-serving, devoid of any consideration for the communal welfare. All people who commit female foeticide are will fully ignorant of the fact that when a female foetus is killed, a future lady is crucified. In other words, the present generation not only brings misery upon itself but also plants the seeds of sorrow for future generations, as the sex ratio is ultimately altered, resulting in an array of societal issues. Unfortunately, no awareness campaign is ever complete without a genuine emphasis on women's capabilities and the need for women's empowerment.

Anuj Garg v. *Hotel Association of India*,[17] the court ruled that a ban on women working in bars and other establishments that served alcoholic beverages or medications of similar effect violated Article 15 since it discriminated against people on the basis of their gender. Despite the obvious discrimination at play, an impact-based strategy was used and discussed at length.

Article 51-A of Part IV-A of the Constitution of India, which was inserted by the Forty-second Amendment in 1976, talks about certain basic obligations of every Indian citizen. The final portion of paragraph (e) of Article 51-A, which applies to males, requires Indian nationals "to reject practises detrimental to the dignity of women", the imposition of obligations on individuals under Article 51-A necessitates their invocation by the courts

[15] 2022 LiveLaw (SC) 186.
[16] (2013) 4 SCC 1.
[17] (2008) 3 SCC 1.

during case deliberations and adherence by the state in the formulation and execution of legislation.

IV.

Preservation of Property Rights and Fair Employment Practises

Economic autonomy is a crucial fulcrum of autonomy. In a number of countries, constitutional courts have emphasised this approach and construed the laws to enhance the position of women and empower them. In *Thota Sesharathamma* v. *Thota Manikyamma*,[18] while interpreting Section 14[19], converted the women's restricted property ownership to full property ownership.

In response to a challenge to the mother's role as natural guardian, the Court ruled that the father cannot assert that he is the only natural guardian because doing so would violate Articles 14 and 15. This interpretation provided by the Court in *Githa Hariharan* v. *RBI*,[20] has caused a tidal shift in the guardianship rights of women.

In *Gayatri Devi Pansari* v. *State of Orissa*[21], the Court affirmed an Orissa government order allocating 30 % of 24-hour medical shops to women as part of the self-employment plan. Hence, Article 15(3)'s wording is absolute and appears to place no limits on the type or scope of special measures the state may enact for the benefit of women and children.

Often, concerns emerge about the property rights of women. Section 27 of the Hindu Marriage Act has been read differently by several high courts. High Court of Madhya Pradesh in *Ashok Kumar Chopra* v. *Visandi*,[22] held that the wife owns "Stridhan" in her own right, and the husband holds it in trust for her. The husband must return "Stridhan" and its value to the wife in accordance with substantive law and equity. Regarding specific properties, the court has granted the marriage courts the authority. In this respect, it is important to note that Hindu women who formerly lacked property rights have now been given an equal part alongside male heirs. In the case of *Vineeta Sharma* v. *Rakesh Sharma*,[23]

[18] (1991) 4 SCC 312.
[19] The Hindu Succession Act, 1956.
[20] (1999) 2 SCC 228.
[21] (2000) 4 SCC 221.
[22] 1996 SCC OnLine MP 45
[23] (2020) 9 SCC 1.

the Apex Court observed, by the declaration in Section 6[24], the daughter has been made a coparcener, and it cannot be inferred that she will only acquire this right upon the death of a living coparcener.

In *Arunachala Gounder (Dead)* v. *Ponnusamy*,[25] held that a daughter can inherit her Hindu father's share of a coparcenary property or any property she gained through her own efforts in the event of his intestate death. The esteemed bench of the Apex Court made reference to customary Hindu Law and judicial precedents in order to affirm that the rightful entitlement of a widow or daughter to inherit self-acquired property or a portion of coparcenary property obtained through partition, in the unfortunate event of the intestate demise of a Hindu male, is duly recognised under both sources.

The case of *Kamla Neti (D)* v. *Special Land Acquisition Officer*[26] was a Scheduled Tribe Community woman's claim to her inheritance. The case included the Hindu Succession Act. The court deemed that a lady belonging to the scheduled tribe was not entitled to any form of survivorship as stipulated by the Hindu Succession Act, but it suggested that the Central Government look into amending the law to reflect this. The court ruled that a daughter from a Tribal community should have the same rights as a daughter from a non-Tribal community to an equal share of the father's property. It noted, *"Female tribal is entitled to parity with male tribal in intestate succession. To deny the equal right to the daughter belonging to the tribal even after a period of 70 years of the Constitution of India under which the right to equality is guaranteed, it is high time for the Central Government to look into the matter and if required, to amend the provisions of the Hindu Succession Act by which the Hindu Succession Act is not made applicable to the members of the Scheduled Tribe."*

Gender justice is predicated on the principle of equality. In *Neera Mathur* v. *LIC*,[27], a female applicant was obliged to disclose her pregnancy, menstrual cycles, miscarriage, etc. When the case was brought before the Court, their lordships deemed such statements unacceptable. It was ordered that such a column be removed from the corporation's statement. In *Associate Banks Officers' Assn.* v. *State Bank of India*,[28] The Supreme Court, in its ruling, has established that women employees are not to be considered inferior in comparison to their

[24] *Supra* note 19.
[25] (2022) 11 SCC 520.
[26] (2023) 3 SCC 528.
[27] (1992) 1 SCC 286.
[28] (1998) 1 SCC 428.

male counterparts. Consequently, it has been determined that any form of discrimination based on sex against women is unwarranted and unjustifiable.

V.

Reservation for Women in Local Elections

The purpose of the reservation provisions in Articles 243-D(3), D(4), T(3), and T(4) is to allow women more influence in political affairs. The 73rd and 74th Amendment Acts introduced Parts IX and IX-A to the Constitution with Articles 243, 243-A to 243-D, and Articles 243-P to 243-ZG. Article 243-D(3) and Article 243-T(3) of the Constitution include identical provisions for the reserve of seats for women in direct elections to the government, as required by Article 243-D(3). Following amendments, the state additionally reserves seats for women in Panchayati Raj Institutions. Notably, the Consumer Protection Act stipulates that one of the members must be female, while the Family Court Act gives women appointment priority. The topic of how far equality should be extended occurs sometimes. Those who ask this simple question either forget or do so on purpose since all men are born equal and the separation of men and women by society is the product of male chauvinism. In the absence of gender equality, the domain of human rights remains inaccessible. In the majority of countries, women play a secondary role. To level the playing field for women, the secondary function must be transformed into the dominant one. To do this, a new perspective on the law must be adopted. The adjustment in perspective is very necessary and, in a sense, obligatory. For this reason, the Constitution contains a number of articles that provide women with unique and equal rights. Now, it is necessary to board a time machine and go to the past.

VI.

Gender Inequality -A Major Concern

Although gender inequality impacts the lives, it is statistically more detrimental to girls. Surviving at birth is easier for girls than boys; girls and boys are on par when it comes to developmental milestones, and girls and boys have similar rates of preschool enrolment worldwide; however, India is the only major country where more girls die than boys.[29]

[29] Economics Times Burue, "More girls die than boys in India in under-five age group: UN Report", *The Economic Times,* October 20, 2015, *available at:* https://economictimes.indiatimes.com/news/politics-and-nation/more-girls-die-than-boys-in-india-in-under-five-age-group-un-

Moreover, girls are more prone to drop out of school. Girls and males have distinct adolescent experiences. Girls are often restricted in their capacity to move freely and make choices about their education, profession, marriage, and social interactions, while guys have more freedom. As girls and boys develop, gender disparities continue to grow and persist until adulthood, when barely a quarter of women are employed in the official workforce. The vast majority of women and girls in India do not fully enjoy many of their rights due to deeply established patriarchal beliefs, norms, traditions, and institutions, even though some of Indian origin women are worldwide leaders and influential voices in different disciplines.

The utilisation of legal means to attain gender equality has been a prevalent approach. However, feminists have occasionally expressed opposition to this method of achieving their objectives, citing various reasons. A famous author Catharine A. MacKinnon, posits that legal frameworks and mechanisms are constructed by individuals in positions of authority who are predominantly male, and thus these systems have a propensity to be discriminatory against women.[30] According to Carol Smart's perspective, feminists relinquish their authority to the legal system when they utilise it as a means of addressing their political concerns.[31] By doing so, individuals become ensnared in an interminable cycle of vexation stemming from either the incapacity of feminism to exert an impact on legal reform for the betterment of women's lives or from the persistent demands placed on feminism to create opportunities for women within legal frameworks.[32] The absence of equal space for women within the law and legal institutions can be considered a form of disability, whereas the acknowledgement of such space can result in the exertion of power over them.

Dalit women are a highly marginalised demographic, not only within the borders of India but also on a global scale.[33] The multifaceted responsibilities of Dalit women residing in rural areas are impeded by inadequate rural infrastructure and limited access to fundamental commodities and amenities.[34] The population in question exhibits elevated levels of poverty,

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report/articleshow/49489084.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst (last visited on 13.02.2024).

[30] Catharine A. Mackinnon, *Feminism Unmodified : Discourses on Life and Law* 45 (Harvard University Press, 1988).

[31] Carol Smart, *Feminism and the Power of Law* (Routledge, Landon, 1989). *available at:* https://doi.org/10.4324/9780203206164

[32] *Ibid.*

[33] Soutik Biswas, "Hathras Case: Dalit Women are Among the Most Oppressed in the World", *BBC India*, October 6, 2020, *available at:* https://www.bbc.com/news/world-asia-india-54418513 (last visited on: 10.02.2024)

[34] Namrata Jeph and Rajesh Ranjan "Constitutional Ownership in India- A Case Study From Maharashtra and Rajasthan", 7.1 CALJ (2022) 124.

and their attempts to obtain resources are frequently met with violent opposition.[35] Direct and institutional forms of violence are frequently directed toward Dalit women.[36] The political disenfranchisement of rural women is a well-documented phenomenon, yet it is crucial to acknowledge that rural Dalit women face an even more pronounced marginalisation in the realm of decision-making. This heightened exclusion is attributable to the intricate interplay of caste, class, and gender dynamics. This makes rural Dalit women more politically marginalised than rural women.[37] Sex workers are another group in a society where caste and poverty are highly visible.[38] Supreme Court has recently expressed worry about the problems they face.[39]

VII.

Conclusion

Despite the existence of constitutional safeguards, legislative rules, and a plethora of proclamations in support of gender equality, cultural views and institutional structures have not appreciably changed. However, unwavering optimism is necessary in order to accomplish what must be done. It is essential to speed up this process of transition by taking actions that are both planned and organised in order to ensure that gender disparity, a social plague that is destructive, is finally buried for good. It is not enough to simply have laws that are written down in black and white to combat evil. Babasaheb Bhimrao Ambedkar once remarked, *"no matter how good a constitution is, it can only be effective when there is the presence of sagacity of individuals and masses; political morality of those who are governing it and the creativity of Judiciary."*[40] Constitutional mobilisation is heavily influenced by the wisdom of the people involved. When it comes to situations involving crimes committed against women, having a judge who is also socially conscious offers stronger protection than enacting stricter

[35] Uma Chakravarti, *Gendering Caste : Through A Feminist Lens* (Sage Publication, 2018).
[36] *Ibid.*
[37] Aloysius Irudayam, Jayshree P. Mangubhai and Joel G. Lee, *Dalit Women Speak Out : Violence Against Dalit Women in India - Overview Report Overview Report of Study in Andhra Pradesh, Bihar, Study in Andhra Pradesh, Bihar, Study in Andhra Pradesh, Bihar, Tamil Nadu/Pondicherry and Uttar Pradesh,* National Campaign on Dalit Human Rights, March 2003, *available at:* https://idsn.org/wp-content/uploads/user_folder/pdf/New_files/Key_Issues/Dalit_Women/dalitwomenspeakout.pdf (last visited on: 14.02.2024).
[38] Divyendu Jha and Tanya Sharma, "Caste and Prostitution in India : Politics of Shame and of Exclusion", 4 (1) *Anthropology* (2016).
[39] Sohini Chowdhury, *Sex Workers not Even Treated as Human Beings Supreme Court Ask Centre about Status of Bill to Protect Trafficking Victims*, Live Law, May 12, 2022, *available at:* https://www.livelaw.in/top-stories/supreme-court-adopt-recommendations-panel-sex- workers-centre-responsebill-to-protect-trafficking-victims-198983 (last visited on: 02.02.2024).
[40] *Supra* note 34 at 126.

laws. Speaking on the sagacity of people, Jawaharlal Nehru in the Constituent Assembly, remarked, *"Governments do not come into being by State Papers. Governments are, in fact the expression of the will of the people."*[41] Constitutionalism essentially creates an arena for individuals to participate in the democratic process within a republic. Hence, in a constitutional democracy, the citizenry is deemed as the epicenter of constitutional change.

It is of utmost importance that individuals collectively attain an acute awareness of this verity. The intricate journey of women embarking upon the path of self-actualisation is a multifaceted endeavour that ought not to be entrusted solely to the discernment of a solitary institution. The responsibility at hand necessitates a collective effort from the state, community organisations, lawmakers who have crafted the legislation, and the judiciary tasked with the interpretation of the constitution and other laws. This collaborative endeavour aims to foster legal transformation within the realm of gender justice, ultimately paving the way for a paradigm shift towards liberation, honour, and equitable prospects for individuals of all genders. To achieve these aspirations, we must herald the advent of a novel epoch.

In summation, it is imperative to acknowledge the pivotal role played by the judiciary in India with regard to the facilitation of gender equality, as it has significantly influenced the course of women's rights and empowerment. Throughout the course of time, the esteemed courts of India have assumed a pivotal and indispensable function in elucidating and implementing legislation that safeguards women's rights and preserves their inherent dignity.

[41] Constituent Assembly of India Debates Volume-1 p. 5 para 3, December 13, 1946, *available at:* https://www.constitutionofindia.net/constitution_assembly_debates/volume/1/1946-12-13 (last visited on: 03.02.2024).

TRANSNATIONAL MARRIAGE ABANDONMENT AND RECOURSE TO MARRIED WOMEN IN NRI MARRIAGES: A SOCIO-LEGAL LIMBO

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Abstract

Transnational marriage abandonment is a multifaceted phenomenon that has emerged in marital relations as an aftermath of mounting migration to foreign countries. This trend is particularly prevalent in NRI arranged marriage where victims face all dimensions of domestic violence and exploitation from husbands and in-laws. Abandonment by itself implicates the crucial issue of human rights violations. In transnational marriage abandonment, either the married Indian woman who is taken to a foreign country is made destitute in the country of residence of the husband or made destitute in the country of her origin by leaving her alone soon after marriage with a promise to take her along shortly. In both cases, the woman is left in a vulnerable and dangerous situation and is further subjected to cruelty. In this paper, the author analyses the social magnetism behind NRI or overseas marriages, challenges in such marriages, the peculiar nitty gritty of transnational marriage abandonment, the scope of the existing legal framework, and the novel measures in progress from the part of the government to ensure recourse to NRI married woman. The paper is relevant in a situation where very recently, in the year 2023, the Ministry of External Affairs has directed 22nd Law Commission of India to examine the issues of NRI marriages and the lacunae of the proposed Bill 2019, exploring the applicability of private international law amidst Indian public and private law.

Keywords: Transnational Abandonment; Domestic Violence; Non-Resident Indians; Marriages; Socio- Legal Limbo.

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I.

Introduction

Domestic violence has been identified as an offence way back; concurrently, redressal by way of instantaneous remedy has been made available through the direct intervention of the state by the Protection of Women from Domestic Violence Act, 2005. On the same line, another pervasive problem that prevails across all communities and which often transcends nationality and culture is the abandonment of married women in NRI marriages. 'Transnational marriage or 'Cross border marriage'[1] abandonment is a form of gross domestic abuse and human rights violation, where vulnerable immigrant married women are abandoned in the foreign country or in their country of origin by their husbands. The penchant for migration to foreign nations and the resultant enhancement in the diaspora has brought in both upbeats and downbeats in economic development and human relationships respectively which reflects on protection on human rights too. This has invited the attention of the state more so specifically when legislation such as PWDV Act fails to provide instant remedy in a foreign country and especially when the perpetrator is in a foreign county. Cross border marriage has become the target of stricter state control than any other type of family based migration because of the complex issues of human rights violations and discriminations centered round it[2].

In a scenario where territorial boundary makes the ringing of domestic legal bell intricate because of the complex nature of marriage due to the involvement of foreign elements and conflict of laws and jurisdiction, it is difficult for the married woman to find a solution to domestic violence. Transcending the geographical limitations to reach the Goddess of Justice has become a tribulation or an ordeal for a woman in NRI nuptial tie. Hence, it is highly inevitable to fix the legal and social position of such abandoned married immigrant women, particularly in a situation where there is limbo concerning the resolution since it varies with the legal system and jurisdiction.

The basic instinct of human beings is to wander in search of wealth and happiness for better survival. This has been the practice even from the beginning of human civilization. The

[1] Melody Lu *Transnational Marriage in Asia* IIAS Newsletter 45 AUTUMN 2007 *available at* https://www.iias.asia/sites/iias/files/nwl_article/2019-05/IIAS_NL45_03.pdf (last visited on February 13, 2024, 12.35 p.m.)

[2] Nicole Constable, *Cross Border Marriages-Gender and Mobility in Transnational Asia* (University of Pennsylvania Press, 2010). In this book, the stereotypic notion of women as victims in transnational marriages is countered.

quest for prosperity is invariably the reason behind large-scale migration to foreign countries and the allied aspect of NRI marriages. Not to find fault with this, for they are the one who contributes to the development of the Indian economy to a greater extent by bringing in foreign currency, large-scale foreign investment, and means for cultural and linguistic intermingling, a few to be explicitly mentioned. The fact that legislations such as Income Tax Act, 1961 and FEMA 1999 value the contribution of these groups, categorize them as privileged, and provide them with concessions speaks for their high status in society so long they retain the NRI status.

II.

NRI , PIO and OCI - Conceptual Clarity

In a general sense, a nonresident Indian is a person who holds an Indian Passport but who does not ordinarily reside in India and has migrated to a foreign country either for employment or for education. Though NRI, the term as such, is not given an exclusive definition in any of the legislations, statutes like the Income Tax Act and FEMA have categorized Residents. Income Tax Act describes Non Resident Indian (NRI)[3] as a person who is not a resident and includes someone who is not ordinarily a resident. The Act under section 6 set forth the criteria based on which an individual could be considered as a Resident. FEMA defines 'person resident outside India[4]' as a person who is not a resident. Reading the two provisions S. 2(v) and 2(w) of FEMA together, it could be understood that a non resident Indian is an Indian citizen who stays abroad for employment/ carrying on business or vocation outside India or stays abroad under circumstances indicating an intention to stay abroad for an uncertain duration.

Most often interchangeably used, similar terminologies are 'Person of Indian Origin (PIO) and Overseas Citizen of India (OCI). OCI means a person registered as an overseas citizen of India by the central government as per Section 7 A of the Citizenship Act 1955[5]. It entitles a person who is already a citizen of another country to register as OCI provided either at the time of or any time after the commencement of the Constitution, he was a citizen, or being so was eligible to become a citizen of India at the commencement of the Constitution or being so he belonged to a territory which later become part of Independent India or his

[3] Income Tax Act 1961(Act 43 of 1961), s. 2(30)
[4] The Foreign Exchange Management Act, 1999(Act 42 0f 1999) s.2(w)
[5] The Citizenship Act 1955 (Act 57 of 1955),s. 2(1)(i)(ee) defines overseas citizen of India card holder. Citizenship Amendment Act 2015 brought such changes in the principal Act 1955.

parents or grandparents were citizens, or a minor child of any person mentioned above. PIO [6] is a citizen of a foreign country who bears an Indian passport, or has or had grandparents who live or lived in India, or has a spouse who is an Indian.

PIO have now been termed as OCI as an aftermath of the amendment to the Citizenship Act. Though it is to find a solution to the problem of non-recognition of dual citizenship under the Indian Constitution, the concept of PIO and OCI has been gradually developed terminology clarity is quintessential to move forward in disputes involving matrimonial relations especially when it transcends territorial boundary and brings in foreign elements. It is to be noted that exclusively for matrimonial jurisdiction, the term NRI is defined under The Registration of Marriage of Non-Resident Indian Bill, 2019, as a citizen of India who resides outside of India.

III.

NRI Matrimonial Relations and Ground Reality– Sociological Perspective

Indians who shift to foreign countries and have acquired foreign citizenship wish to get their children married to young brides from India due to several factors. The curiosity is how a bizarre guy who has been brought up in a different culture and from a higher stratum of western society wishes to have an ordinary Indian girl and, most often, a village girl, sometimes educated, sometimes not. The curiosity is not finished here. Throughout, it persists, and because of this peculiar or fancy nature of the marriage, it is also known by the name 'Fancy marriage'. The rationale behind such marriage differs from what we usually and ideally interpret as the social function of marriage and family. It is even termed a fraudulent marriage because of the motives connected with such marriages.

From a sociological perspective and analyzing the fundamental nature of human beings, the lust for power, money, position, and status invariably pushes one to have contact with higher echelons of society, and especially if it is the marriage market, it is as clear as day. Brides and their families are often attracted by the prospective of residence in a foreign country, scope of leading a comfy and deluxe lifestyle, a means for up gradation of social and family status, and so on. On the other hand, bridegrooms wish to marry Indian girls for reasons such as to keep their roots in India, to reinforce culture, tradition, language, and

[6] Reserve Bank of India adopts this definition in its Master circulars. *available at* https://www.mea.gov.in (last visited on February 8, 2024, 12.45 a.m.)

values to their new generation, in search of virginity or as obedient sons, demanding more dowry or for amassing wealth and many more. To suit the status of the bridegroom's family, these marriages are often conducted in luxury, and everything happens so hurriedly that the parents do not even take the time or are devoid of any mechanisms to know the whereabouts of the prospective groom and his family. That means no background checks are usually done, and what follows is girls are left as honeymoon brides to their fate.

Hence the major issue faced by woman in NRI marriages is post honey moon abandonment. They are left behind in their own country or foreign country. The situation becomes worse if the latter happens when there is a complete barrier to her right to seek help because of varied obstacles in the form of language, absence of far or near relatives, lack of awareness as to the law, legal procedure in foreign county altogether she feels to be at sea.

IV.

Transnational Marriages and Transnational Marriage Abandonment – Conceptual Analysis

Transnational marriages are marriages between people of two different countries. It envisages situations where citizens of one country contract marriages either in their own country or abroad with nationals of the other countries or among themselves, or having married here, either both or one of them migrate to other countries. The very nature of transnational marriage brings in the question of conflict of jurisdiction.

Status[7] is a concept that is problematic in private international law. The object of the juristic concept of status is the maintenance of social institutions and the order of the relationships between different individuals or groups within the State. Hence, status cannot be acquired, varied, or even abandoned at the mere will of the person or persons concerned. Universality is one of the attributes attached to the juristic concept of status. However, as far as marriage is concerned, sometimes, there is not only a single law that governs the type of status. The validity of marriage or status of marriage depends on compliance with *lex loci celebrationis* or the law of the land in which the marriage is solemnized and sometimes, it

[7] Justice P. B. Mukherjee, *The New Jurisprudence, The Grammar of Modern Law* 410 (2nd edn., Eastern Law House, 2016)

depends on the law of each party domiciled at the time of marriage and so on[8]. This is crucial, especially in the context of transnational marriages.

Just like ordinary marriages, disputes pop up in overseas marriages too, but unlike the former, complexity is more in the latter, especially when the marital relation transcends the territorial boundary. Most often in overseas marriages, women married from India to NRI groom is used for domestic help, sexual gratification, or plain house-keeping rather than as a wife, to take care of the foreign wife and children, and so on. She is subjected to gross cruelty and sometimes deserted, too.

Transnational Marriage Abandonment[9] (TMA) refers to the abandonment of a deprived spouse in spouse's country of origin without the means to return to the foreign country. The issue of stranded spouse or abandonment which arises on account of intermingling procedure of marriage and migration reveals a system where immigration structures and patriarchal power relations reinforces domination and control over immigrant survivor's vulnerabilities. The transnational abandonment of South Asian wives in the home country is a severe growing problem and it takes varied forms[10] such as getting rid of married woman migrated to NRI's husband's country of residence; bringing the married woman to India for a vacation and leaving her behind and subsequent revocation of visa ;leaving behind the married woman in India with her in-laws on assurances that visa will be sponsored, and is eventually thrown out from their home or she leaves because of domestic violence; husband disappearing from the foreign resident, leaving behind married woman and children in rented apartments , taking the married woman who has been living in US on an H-4 visa[11] to India and leaving her without any means of rejoining husband and family and the like.

The practice among the husbands in NRI marriages usually is to deprive the woman of visa and travel documents and afterward contacts the Home office declaring that the relationship has ended so that the woman's visa is curtailed. Usually, the abandoned wife who lost their matrimonial or residence rights in the UK is often left without any financial resources or rights to support and protection. Many victims are also left vulnerable to further

[8] Charles W. II Taintor, "Marriage in the Conflict of Laws", 9 VAND. L. REV. 607 (1956) *available at* https://scholarship.law.vanderbilt.edu/vlr/vol10/iss4/19 (last visited on February 15,2024, 3.40p.m.)
[9] https://southallblacksisters.org.uk/ (last visited on February 2,2024 , 8.30p.m.)
[10] Pragna Patel et al. *"*Emerging issues for International Family Law: Part 3: Transnational Marriage Abandonment and the Dowry Question*"* 46 *The Family in Law* 1443-1449 (2016). *available at* https://core.ac.uk/download/pdf/76999355.pdf (last visited on February 19, 2024 at 10.25p.m.)
[11] The H-4 visa is a dependent visa for the spouse and unmarried children under 21 of an H-1B visa Holder.

violence, exploitation, destitution, and social stigma from their home country's communities once they reach their country of origin. When these women have no recourse under the Immigration Rules to return to the United Kingdom, if they remain in the United Kingdom, they would be eligible for indefinite leave to remain, which is often named (DVILR) Domestic Violence Indefinite Leave to Remain in the UK. This was the status even though transnational marriage abandonment has been recognized[12] in the Family Courts as a form of domestic violence. But very recently, there has been a drastic change in the system whereby through the interpretation of the ECHR [13] and UK's Human Rights Act 1998, United Kingdom High Court through Justice Lieven in *AM* v *SSHD*[14] observed that there shall not be any discrimination concerning protection afforded to the victims of transnational marriage abandonment on the grounds of location[15] of victims in the UK or outside. Transnational abandonment[16] or transnational marriage abandonment is a gross human rights violation in marital relationships[17].

Right to dignified life is a basic human right that a woman is devoid of in such stranded situations. In cases when they are left with their parents, they have to face the community in the status of a deserted wife at their fault; sometimes, parents will be reluctant to accommodate them in the family of orientation. In situations where they are left in their husband's home, they are subjected to extreme cruelty, denial of food and clothing, and

[12] Re S (A Child)[2010] EWHC 1669 (Fam)
[13] ECHR, art.14 ensures that everyone is treated the same and without bias, no matter what their nationality or immigration status is.
[14] AM v SSHD [2022] EWHC 2591 (Admin)

[15] [2022] EWHC 2591 (Admin). A Pakistani woman who arrived in the UK in 2017 with her British husband and gave birth to a British daughter was later abandoned in 2021 back in Pakistan without any travel documents and separated from her two-year-old child. The ruling in this case has lifted the mandatory requirement for applicants to be physically present in the UK to apply ILR (Indefinite Leave to Remain). Consequent to this decision on 7 December 2023, the Government published new Immigration Rules relating to the domestic abuse route to indefinite leave to remain (ILR). The latest immigration rules are 'Appendix Victim of Domestic Abuse' or 'Appendix VDA'.

[16] Jahangir et. al, "Emerging issues for international family law: Part 2: Possibilities and challenges to providing effective legal remedies in cases of transnational marriage abandonment, November *Fam Law* 1352 (2016) *available at* https://www.academia.edu/73200974/Emerging_issues_for_international_family_law_Part_2_Providing_effective_legal_remedies_in_cases_of_transnational_marriage_abandonment (last visited on February 17,2024 11.46p.m.)

[17] Anitha et al., "Emerging issues for international family law Part I: Transnational Marriage Abandonment as a form of Domestic Violence," October *Fam Law* 1247 (2016) *available at* https://www.researchgate.net/publication/329365486_Emerging_issues_for_international_family_law_Part_1_Transnational_marriage_abandonment_as_a_form_of_domestic_violence (February 17,2024 11.46p.m.)

sometimes victimized by sexual harassment at the hands of male in-laws and male relatives of the husband. They cannot even find money to revisit the foreign country, especially in situations where children are taken into the custody of their husbands. Again if the desertion is in a foreign country, they lack sufficient money to mount a costly legal battle overseas. They cannot even continue existing in the foreign country without an H- 1B visa holder. Enforcement of matrimonial rights with respect to maintenance, child custody, dowry, property will remain a dream for these helpless women who are deserted.

V.

Transnational Marriage Abandonment – Human Rights Perspectives

Women's rights are human rights. Hence NRI woman also enjoy basic human rights, fundamental rights and those inherent and inalienable natural rights. The UDHR 1948 along with its two Covenants: ICCPR 1966, ICESCR 1966, and the International Bill of Rights for Women, namely the CEDAW 1982, speaks volume for the need of extending protection to women and equally the responsibility of member nations to protect those substantive rights enshrined under the Conventions. Art 23 of ICCPR imposes duties on state parties to ensure equal rights and responsibilities of spouses as to marriage, during marriage, and its dissolution. Art 10 of ICESCR requires the state parties to provide the widest possible protection and assistance to the family as the fundamental unit of the society. Art 16 of CEDAW also aims to ensure equality of women in all matters relating to marriage and family relations, as well as the the same rights and responsibilities of parties during marriage and its dissolution. Equally notable is the existence of specific convention relating to foreign marriages, such as the Hague Convention on Celebration and Recognition of the Validity of Marriages 1978[18].This Convention facilitates the celebration of marriages and ensures the recognition of the validity of marriages across national borders. It applies not only to formal requirements of marriage but also to material and substantive requirements of marriage.

Indian Constitution invariably reflects all the rights under the ICCPR and ICESCR in its Part III and Part IV which gives constitutional standing and backing to women's basic human rights. India has also ratified CEDAW in 1993. Right to equality and equal protection

[18] India still needs to ratify the Convention. However, even with respect to the application of the Convention, it could be said that the approaches of countries vary, and they tend to follow the personal laws of the spouse to determine the substantive requirements.

of law [19] , right to dignified life and personal liberty [20] , right to have one's nationality/citizenship, right to possess independent domicile, right to own property independently or jointly, right to travel, right against exploitation, right to compensation against desertion[21] , right against cruelty, bodily harassment, torture, all these are human rights that find a place in international human rights instruments, the grund norm and in judicial pronouncements.

Apart from the International Conventions and the Constitution, domestic legislations have also been passed by India in tune with the Conventional commitments. Special legislations like the PWDV Act 2005, Dowry Prohibition Act 1961, Protection of Human Rights 1993, and National Commission for Women Act 1990 confer special protection to women against all sorts of exploitation from within and outside the family, ranging from strangers to family members. Equally exists general public law and criminal law like Indian Penal Code 1860 extending protection to women against offences committed by husband and relatives in connection with dowry. However, sufferings of women continue to exist in society. The very fact that severe atrocities are being faced by women from various walks of life despite the existence of all these legal weapons is an ignominy on the Constitutional goal of gender justice. Despite the positive law framework, limitations and strictures rule when the marriage transcends the geographical boundary.

VI.

Recourse to Transnational Marriage Abandonment - Analysis of Existing Legal Framework

In India, though, the victims of deceitful marriages, matrimonial harassment, or desertion can take recourse to legal proceedings against their overseas Indian spouses and their in-laws under the provisions of the IPC, 1860 , Dowry Prohibition Act, 1961 as well as PWDV Act, 2005, even then solution to the problems in the case of NRI marriages becomes highly complex because of the lacunae in the existing domestic laws in the form of absence of uniform civil law, abundance of personal laws and also the presence of foreign element which invites application of private international law.

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[19] The Constitution of India, art. 14
[20] The Constitution of India, art. 21

[21] *Neerja Saraph* v *Jayant V.Saraph*, (1994) 6 SCC 641

The PWDV Act extends primary protection against violence faced by women in their matrimonial homes, and it is not so problematic in a situation when foreign elements are absent. However, the applicability and enforcement of reliefs[22] such as protection orders , residence orders, monetary reliefs custody orders, compensation orders, interim exparte order in transnational marriages has its own limitations and is problematic, especially when the husband and his family have their residence outside India. Even with respect to serving summons or notices also, problems persist. Sometimes, the aggrieved woman may be in such a situation that she cannot even provide the correct residential address of the NRI husband. If at least the in-laws reside within India, the orders in case of desertion, such as a 'residence order' could be enforced considering the term 'shared household', which means a place where the parties have stayed at any point in time in a domestic relationship. However, enforceability depends on the nature of each case and relief. This could be easily applied if marriage is registered in Indian territory or solemnized as per Indian Law. Even otherwise since the Act is applicable not only to those in marital relationship but also to 'live in relationship' irrespective of the validity of marriage if aggrieved could prove domestic relationship and relationship in the nature of marriage, she could succeed in her claim for protection orders. This situation is perceived in cases where NRI with a married wife in a foreign country of residence solemnized a fake marriage in India or where the married woman in a honeymoon marriage deserted soon after a honeymoon in their family itself with the promise to come back with a visa or travel permit. So, the solution lies in applying private international law when domestic law fails in practice.

In private international law[23], when there is much difference between domestic judgments and foreign judgments, the theory of comity of courts and reciprocity facilitates recognition and enforcement of foreign judgments. Recognition to a foreign judgment by Indian courts is not by way of courtesy but on considerations of justice, equity, and good conscience. This principle is equally applicable to recognition of foreign divorces and hence could be applied in the case of NRI matrimonial issues. However, the applicability and enforceability of judgment depend on several factors, especially in situations where NRI husbands obtained an *exparte* decree of divorce in a foreign court without the knowledge of the wife.

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[22] The Protection of Women from Domestic Violence Act (Act 43 of 2005) ,s.18-23

[23] Joseph Story, *Commentaries on the Conflict of Laws, Foreign and Domestic, in Regard to Contracts, Rights, and Remedies, and Especially in Regard to Marriages, Divorces, Wills, Successions, and Judgments* (The Law book Exchange Ltd., 2008)

In Vikas Aggarwal v *Anubha*[24] the court was dealing with *the exparte* decree of divorce granted by a foreign court. The Court interpreted S. 44 A CPC, and regarding the enforceability of the foreign divorce decree in Indian court, it was observed that if the marriage is solemnized in India and the grounds based on which the divorce is granted by the foreign court is not recognized as such in India and the women has not subjected to the jurisdiction of a foreign court, the foreign decree could not be enforced in India. Moreover especially in such NRI marriages *exparte* decree is obtained fraudulently by husband and hence it cannot be enforced in Indian court and is not valid reiterating the prerequisites of S.44A CPC.

The conditions under which foreign judgments could be enforced are laid down by Civil Procedure Code under S.44A[25]. Conclusiveness[26] of foreign judgments for enforcement in India is based on prerequisites such as court of competent jurisdiction, judgment based on merit[27] , judgment based on correct view of international law and not on the refusal of recognition of relevant law in India, judicial proceedings based on principles of natural justice, judgment not obtained on fraud, and which is not based on breach of any law in force. Nonetheless, principles of private international law can neither be adopted mechanically/blindly nor offend the public policy.

A hurdle very often the wife finds when filing case before the domestic court in NRI matrimonial issues is with respect to issue of summons or enforcement of *exparte* orders when communication address is not available, or when the husband and near relatives deliberately escape from receiving the summons and move to foreign country. To secure the presence of the NRI husband or his family members against whom cases were registered, notices could be issued to watch their entry or departure from the country, and it could be done by opening Look out Circulars. This Look out Circular or Look out Notice can be issued within local, national, and international countries and across the International Border Agencies However, a coordinated effort by the respective departments must be prompt.

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[24] AIR 2002 SC 1796

[25] Execution of the decree of superior courts in reciprocating territory. The central government specify the country or territory outside India as a reciprocating territory and recognize courts in such country or territory as Superior Courts based on which the decree or judgment of such courts could be enforced in India.

[26] The Civil Procedure Code 1908 (Act 5 of 1908) ,s.13

[27] M/s *International Woollen Mills* v. *Standard Wool (U.K) Ltd.* , AIR 2001 SC 2134

Another lawful option for securing the appearance of an NRI husband is impounding the passport under section 10(3)(h) of The Passport Act 1967. If it is brought to the notice of the Passport Authority that against the holder of passport or travel document, a warrant or summons for the appearance, or a warrant for the arrest, or an order prohibiting departure from India has been issued by a court, passport authority can impound or revoke the passport or the travel document of the holder who happens to be the NRI husband.

An outstanding observation rendered by the Supreme Court in *Krishna Veni Nagam* v. *Harish Nigam*[28] forms the basic directions regarding all matrimonial matters, including NRI matrimonial relationships in India. To advance the interest of justice, the court has permitted video conferencing and genuine representation of parties through counsels. NRIs no longer need to travel to India as the process can be carried out by their lawyer, who is authorized to act on their behalf. The lawyer can file their case, sign on their behalf, and obtain the decree. The divorce process for NRIs in India can be completed without physically traveling to India. In the interest of justice the court where matrimonial or custody proceedings are instituted incorporate safeguards to ensure that there is no denial of justice. Such safeguards include making available video conferencing facility, legal aid service, deposit of cost for travel, lodging, and boarding in terms of Order XXV CPC[29] and e-mail address/phone number, if any, at which litigants from out station may communicate.

In *Seema* v *Aswini Kumar*[30] the Supreme Court has issued directives to both central and state governments to take the following steps to extend protection to NRI women who are the victims of domestic violence, which forms the strategic plan of action in this regard. It envisages compulsory registration of marriages irrespective of religion and imposes the responsibility of registration and notification of procedure for registration by the respective states within 3 months. Further, the court directs the issuance of marriage certificates in duplicate copies with the social security number of the NRI spouse as one of the prerequisites in such marriages. These guidelines have been partially complied with by the Central Government.

Yet another legislative initiative to protect the rights of women in marriages where at least one of the parties is an Indian citizen or marriages between Indians solemnized outside

[28] (2017) 4 SCC 150
[29] Security for costs
[30] AIR 2006 SC 1158

India is the Foreign Marriage Act 1969. The Act lays down the preconditions [31] for solemnization of foreign marriages before the marriage officer in a foreign country. Mandatory notice of intended marriage to the Marriage officer of the district in which at least one of the parties to the marriage has resided at least 30 days immediately preceding the intended date of notice of marriage is envisaged under the statute. Such notices are kept in the Marriage Notice Book which is open to inspection by any one. The officer must publish the notice in a conspicuous place in his office, India, and the country of ordinary residence of the parties to the marriage. On publication of the notice if any objection to the intended marriage is received within 30 days from the date of issue of notice, the marriage officer has to record the nature of the objection in the Notice Book and refuse to solemnize the marriage till a proper inquiry is conducted and report is submitted for further inquiry and afterward for the advice of the central government. Or else the marriage will be solemnized[32] . However, if the marriage is in contravention of any laws in force in a foreign country or is contrary to international law or comity of nations, it will not be solemnized by the officer[33]. An appeal may be preferred against the order of the marriage officer within a period of 30 days from the date of refusal before the central government, and the marriage officer shall act in conformity with the decision of the central government. A Declaration is to be signed by the parties and three witnesses before the marriage officer and countersigned by him before the marriage gets solemnized. The officer issues a certificate of marriage[34] and will be entered into the Marriage certificate book, which will be signed again by the parties and three witnesses. This certificate is conclusive evidence of the fact of marriage, and such a foreign marriage is considered as valid in India as per Section 15 of the Foreign Marriage Act 1969. A marriage solemnized under any other foreign laws could also be registered under the Foreign Marriage Act, and in such cases, such marriages will be deemed to be marriages solemnized under this Act[35]. However, the prerequisites for the solemnization of marriages under this Act would automatically apply to such marriages.

Now, a crucial aspect to be considered here is the matrimonial disputes and the matrimonial relief[36] or redressal available to the parties, especially the women. The Foreign Marriage Act further says that all the consequences pursued in the case of a marriage

[31] The Foreign Marriage Act (Act 33 of 1969), s. 4
[32] Foreign Marriage Act 1969 The Foreign Marriage Act (Act 33 of 1969), s.9
[33] Foreign Marriage Act 1969 The Foreign Marriage Act (Act 33 of 1969), s.11
[34] Foreign Marriage Act 1969 The Foreign Marriage Act (Act 33 of 1969), s.14
[35] Foreign Marriage Act 1969 The Foreign Marriage Act (Act 33 of 1969), s.17
[36] Foreign Marriage Act 1969 The Foreign Marriage Act (Act 33 of 1969), s.18

registered under the Special Marriage Act apply to a marriage solemnized under the Foreign Marriage Act. That means the effect of the marriage, rights, and liabilities of the parties, remedies in the form of restitution of conjugal rights, judicial separation, nullity of marriage, void and voidable nature of marriage, divorce, and also the procedure and jurisdiction of the court all will follow as if it is solemnized under Special Marriage Act. This makes it clear that the Foreign Marriage Act also contains provisions that extend help to the deserted wife in transnational marriages. However, to get the benefit under the Act the parties have to approach the Marriage officer[37] for the foreign country appointed under the Foreign Marriage Act for registration of marriage, failing which this Act will not be of any use to the parties[38].

However, despite these mechanisms, the extent to which these are practically feasible depends on the instant support system available to a deserted wife who is left without any familial help in distraught situations. Remedies in black and white may sometimes be of no realistic use in conditions of transnational marriage abandonment.

VII.

Transnational Marriage Abandonment and Governmental Accountability

In May 2017, an Expert Committee[39] headed by retired Judge, Mr. Justice Arvind Kumar, was appointed to identify legal and regulatory hurdles faced by Indian women married to NRIs. The Committee in its report, put forward recommendations such as i))compulsory registration of marriage by amending Registration of Births and Deaths Act 1969, ii)creation of an integrated nodal agency within the central government, iii) creation of dedicated website for NRI marriages , iv) relevant amendment to provisions of CPC and CrPC with respect to service of summons, warrants or proclamations .

In tune with Arvind Kumar Committee recommendations, an Integrated Nodal Agency (INA) was created in the year 2018, having representations from the Ministries of External Affairs, Home Affairs, Law & Justice, and Women and Child Development. The

[37] Foreign Marriage Act 1969 The Foreign Marriage Act (Act 33 of 1969), s. 2(*d*) "Marriage Officer" means a person appointed under section 3 to be a Marriage Officer. Central government appoints its consular or diplomatic officers as marriage officer under the Act for a foreign country.
[38] V.C. Govindaraj, *The Conflict of Laws in India*- Inter Territorial and Inter Personal Conflict (Oxford University Press, 2019)
[39] Committee on External Affairs(2019-2020)Seventeenth Lok Sabha, Ministry of External Affairs, The Registration of Marriage of Non –Resident Indian Bill,2019 Third Report, Lok Sabha Secretariat. *available at* https://eparlib.nic.in/bitstream/123456789/790768/1/17_External_Affairs_3.pdf (last visited on February 19, 2024 10.30p.m.)

INA envisages a single window timely solution to the problems of women deserted by their NRI husbands due to violence or any other deceitful deeds. It has been issuing Look-out Circulars to absconding husbands in cases of NRI matrimonial issues.

The National Commission for Women appointed as the National Coordinating Agency by the Government of India coordinate stakeholders dealing with NRI matrimonial issues since April 2009. An NRI Cell is functioning under the NCW, which not only receives complaints directly from NRI matrimonial victims but also has active interaction with the Ministries of Overseas Indian Affairs, External Affairs, Law and Justice, and Home affairs to sort out the procedural problems faced by NCW in giving timely relief to the victims[40]. They are also engaged in creating awareness against such fraudulent NRI marriages with a circulation of prerequisites in the form of Do's and Don'ts. Panel of experts constituted by NCW assist the aggrieved wives, render legal services and extend all support including mediation and conciliation.

Non -Resident Keralite Affairs, Government of Kerala (NORKA ROOTS)[41] is another implementing agency looking after the welfare of Non-Resident Keralites. It acts as a forum for addressing the problems of NRKs, safeguarding their rights, rehabilitating the returnees, and channeling their expertise and resources. In addition, it provides a wide range of services, including skill upgrading, pre-departure training orientation programmes and attestation of educational certificates to intending migrants. Though it does not have direct involvement, it has a key role, especially concerning visas, visa cheating, the risk of undocumented migration, and extending financial assistance to impoverished returnees. Since 2006, NORKA-ROOTS regularly conducts Pre-Departure Orientation programmes in all districts through the regional centres of NORKA-ROOTS and disseminate essential information on emigration and Do's and Don'ts in an overseas country[42].

Another initiative in the form of a legislative framework is The Registration of Marriage of Non-Resident Indian Bill, 2019. The Chairman, Committee on External Affairs

[40] http://ncw.nic.in/ncw-cells/nri-cell/functions-nri-cell (last visited on February 19, 2024 12.15p.m.)
[41] https://keralahouse.kerala.gov.in/about-norka (last visited on February 19, 2024 12.15p.m.)
[42] S. Irudaya Rajan, *Assessment of NORKA-ROOTS - An Implementing Agency of the Department of NORKA - Non-resident Keralites Affairs of the Government of Kerala and the Applicability of a Similar Organisation to Other States in India* (2012) (Migrant Forum in Asia) *available at* http://mfasia.org/migrantforumasia/wp-content/uploads/2012/02/rajan_cds_norka-reportfeb2012.pdf (last visited on February 19,2024 10.30p.m.)

submitted a report[43] on the Bill in Rajya Sabha in the year 2019. The Report identified certain issues in NRI marriages such as 1) abandonment of wife in India after marriage, 2) unknown whereabouts of spouse and non registration of marriage , 3)denial of visa, 4)already married NRI spouse,5) harassment by spouse and in –law family, 6)false information about NRI spouse's job and salary, 7)wife sent back to India, 8)custody of children, 9)spouse not responding to summons, 10)denial of maintenance in India, 11)obstacles in getting maintenance or divorce,12)high cost in legal assistance,13)immigration issues, 14) difficulties in countering judicial action in foreign country, 15) strict privacy laws in foreign country denying information about spouse without his consent, 16) visa related issues and 17) more lenient ground to obtain *exparte* decree of divorce in foreign country.

The Ministry of External Affairs has received /recorded 5298 complaints on NRI matrimonial issues for a period from January 1, 2016 - October 31, 2019. The table below displays the number of complaints received and resolved at appropriate levels. The date seems to be slightly biased since it claims that whatever complaints received, all those were resolved.

Complaints on NRI Matrimonial Issues- Received and Resolved

Year	**No. of complaints received**	**No. of complaints resolved upto 31 Oct 2019**
2016	1,510	1,510
2017	1,498	1,498
2018	1,299	1,299
1 Jan 2019 - 31 Oct 2019	991	991
Total	**5,298**	**5,298**

Committee on External Affairs 2019-2020, Seventeenth Lok Sabha, March 2020[44]

The above data is also presented on a state wise basis before the Lok Sabha which reveals that most of the complaints pertain to issues such as abandonment, harassment,

[43] *Supra* note 39

[44] Committee on External Affairs(2019-2020)Seventeenth Lok Sabha, Ministry of External Affairs, The Registration of Marriage of Non –Resident Indian Bill,2019 Third Report, Lok Sabha Secretariat. *available at* https://eparlib.nic.in/bitstream/123456789/790768/1/17_External_Affairs_3.pdf (last visited on February 19, 2024 10.30p.m.)

cheating, spousal abuse, request to ascertain whereabouts of NRI spouses, request for extradition, deportation of spouse to India, request for maintenance, support, divorce or child custody and request for legal and financial assistance to file a case against the NRI spouse. Over a period of four years, the number of complaints received from the State of Punjab is the highest which is 763. Uttar Pradesh, NCT of Delhi, Maharashtra, Rajasthan, Karnataka and Tamil Nadu is also reported to have received more than 300 complaints. There are complaints reported in North Eastern states also, though very less in number.

State Wise Complaints on NRI Matrimonial Issues- Received and Resolved

Sl. No.	Name of State	2016	2017	2018	Jan 2019 -31 Oct 2019	Total
1.	Andhra Pradesh	40	42	31	64	177
2	Arunachal Pradesh	03	01	01	0	05
3	Assam	09	02	03	01	15
4	Bihar	23	27	19	06	75
5	Chhattisgarh	21	23	20	22	86
6	NCT of Delhi	110	116	102	108	436
7	Goa	06	07	04	01	18
8	Gujarat	46	56	51	55	208
9	Haryana	80	73	69	66	288
10	Himachal Pradesh	26	24	21	03	74
11	Jammu & Kashmir	16	13	10	02	41
12	Jharkhand	29	23	21	01	74
13	Karnataka	95	91	80	75	341
14	Kerala	94	80	45	70	289
15	Madhya Pradesh	80	75	62	32	249
16	Maharashtra	127	117	106	118	468
17	Manipur	0	0	0	0	0
18	Meghalaya	0	0	01	0	01
19	Mizoram	0	0	0	0	0
20	Nagaland	0	0	0	0	0
21	Odisha	17	15	18	13	63
22	Puducherry	03	01	0	0	04
23	Punjab	207	225	210	121	763

24	Rajasthan	131	117	105	18	371
25	Sikkim	0	0	0	0	0
26	Tripura	0	01	0	0	01
27	Tamil Nadu	95	92	100	34	321
28	Telangana	33	37	28	47	145
29	Uttarkhand	11	19	16	15	61
30	Uttar Pradesh	151	155	125	70	501
31	West Bengal	57	66	51	22	196
32	Others	0	0	0	27	27
	Total	**1510**	**1498**	**1299**	**991**	**5298**

Committee on External Affairs 2019-2020, Seventeenth Lok Sabha, March 2020[45]

In the discussion on the origin of complaints related to NRI marriages, the foreign secretary replied that though they do not have country wise figures but records indicate that the majority of the cases are from western countries namely, the United States, Canada, Australia, New Zealand and United Kingdom. However, they have relatively few complaints from Gulf countries. The growing number of complaints relating to NRI marriages reiterates the need for strategic steps and ministry wise coordination along with a comprehensive law in this regard.

The proposed Bill aims to protect Indian women from fraudulent marriages with NRIs. However, the Act uses the term spouses, which is gender-neutral. To check the fraudulent marriages, one of the key features brought in is the compulsory registration within 30 days from the date of marriage. That means irrespective of the place where marriage is solemnized, every marriage between Indians of which one is an NRI must be compulsorily registered for the better enforcement of the rights of an abandoned spouse under the family laws. It also seeks to amend the Passport Act, 1967, so as to empower the passport authority to impound or cause to be impounded or revoke a passport or travel document of a NRI if it is brought to his notice that the NRI has not registered his marriage within a period of thirty days from the date of marriage. Simultaneously, it proposes an amendment to the Cr.P.C. 1973, to make the issue of summons and warrants effective by uploading on the specifically

[45] Committee on External Affairs(2019-2020)Seventeenth Lok Sabha, Ministry of External Affairs, The Registration of Marriage of Non –Resident Indian Bill,2019 Third Report, Lok Sabha Secretariat. *available at* https://eparlib.nic.in/bitstream/123456789/790768/1/17_External_Affairs_3.pdf (last visited on February 19, 2024 10.30p.m.)

designated website of the Ministry of External Affairs, Government of India along with substance of information and it shall be conclusive evidence of serving of summons. Additionally it proposes attachment of movable and immovable properties once the person is pronounced as a proclaimed offender and uploaded the declaration on the website following the procedure. Nonetheless, for the reason that there exist cavities, it was directed to review the proposed Bill, and the Law Commission in the month of February 2024, suggested a comprehensive law for NRIs, including compulsory registration of marriages.

VIII.

Conclusion and Suggestions

Instant remedy at the right time is the legitimate expectation of all persons, including victims, and if it is prolonged on account of deficiency on the part of governmental machinery or legislative lacunae, it reflects the failure of the constitutional system and erosion of the concept of inclusivity and equity. In such a situation, it is the duty primarily of the state and the government to frame strategic schemes and plans backed by a legislative framework sharply drafted, weeding out the loopholes so that victims can find a safe place of abode. The following suggestions have been put forward based on the research undertaken in the field:

1. Comprehensive law for NRIs is preferable.
2. Compulsory registration of marriage in India
3. Reciprocal arrangements /bilateral agreements between countries facilitating enforcement of judgments concerning divorce, maintenance, residence, contact, and custody of children are desperately needed. A recent trend whereby UAE was made a reciprocating territory through an extraordinary gazette notification could be followed in NRI matrimonial issues considering the rise in the diasporas.
4. Ensure timely financial assistance to women deserted by NRI husbands or to the legal counsel, to women organizations or NGOs to enable them to extend assistance to the deserted woman .
5. Pre departure orientation programme conducted by NORKA ROOTS for overseas job aspirants from Kerala should be made compulsorily to brides in NRI marriages at least to have a basic understanding of Rules and Regulations relating to Emigration, Do’s and Don’ts in overseas countries.

6. Promote the formation of similar but more effective organizations than NORKA ROOTS in other states in India, especially where diasporas and transnational marriages are on the rise.
7. Sensitize the officers at NORKA Roots about their role in rendering help to victims of NRI matrimonial issues .
8. Sensitize the passport office personnel as to their responsibility towards extending help to parties in NRI matrimonial issues.
9. Minimum awareness about the legal mechanism and machinery in the foreign jurisdiction to which the parties to marriage proceed must be made a precondition for verification and clearance for travel documents or passports.
10. Proof of registration of marriages in India must be made a necessary legal requisite for travel permission. At the time of registration, the passport number and details of nonresident spouses need to be recorded.
11. Pre-marital counseling should take note of the growing issues in NRI marriages, and counseling should proceed on that line.
12. Ensure the participation of local bodies in checking fraudulent marriages.
13. Provision for an effective agency exclusively for ordinary people to seek information about a person living abroad, which should be made available through the consulate.
14. Ensure proper and prompt coordination between the agencies at various levels.
15. Notification of a panel of lawyers who specialize in dealing with NRI marital issues must be done through the Women and Child Development Department of each state. It is now done at the central level, which has its strictures. It should percolate to the root level.

Marriage as a social institution to be preserved to the extent possible; however, it should not be at the cost of the life of spouses. Let preservation be the rule, not the mandate.

REVISITING THE CRIMINAL JUSTICE SYSTEM: ETERNAL QUEST FOR TRUTH INTO THE SHIFTING PARADIGMS OF A FAIR TRIAL

Dr Shridul Gupta*

Abstract

The criminal justice system plays a crucial role in maintaining societal stability and is entrusted with ensuring justice through impartial and equitable trials. Nevertheless, as societal norms, technological advancements, and legal frameworks progress, the definition of a fair trial undergoes constant review. The abstract aims to investigate the ever-evolving terrain of the criminal justice system, focusing on the enduring pursuit of truth amid changing paradigms. Fairness in trial proceedings is multifaceted, incorporating principles such as due process and the presumption of innocence. However, contemporary challenges, including the rise of digital evidence and systemic biases, introduce new complexities. Moreover, societal transformations and global events continually shape public perceptions of justice, necessitating worldwide responsive adjustments from legal systems. Despite these fluctuations, the relentless quest for truth remains paramount, transcending temporal and contextual confines. Whether through rigorous evidence scrutiny or promoting transparency in legal proceedings, the pursuit of truth remains fundamental. Nonetheless, achieving this objective demands a comprehensive approach that addresses the diverse factors influencing trial outcomes. Furthermore, this abstract highlight the significant role played by stakeholders within the criminal justice system – from judges and attorneys to jurors and forensic experts. Their decisions and perspectives converge to shape the fairness and integrity of trial proceedings, emphasizing the collective responsibility in the pursuit of justice. In conclusion, this abstract advocates for a critical evaluation of the criminal justice system, urging stakeholders to navigate the complexities of a changing legal landscape while upholding the enduring pursuit of truth and fairness in every trial.

Keywords: Criminal Justice System; Fair Trial; Justice Delivery System; Investigation; Accusation.

I.

Introduction

A Country should be ruled by consensus rather than by confrontation. Only an impartial judicial system can take responsibility to ensure that in the delivery of justice, only truth shall prevail, and a fair judicial process must be used so that the rule of law governs the country. The rule of law teaches about truth, dignity, justice and non-combative methods to resolve disputes and disagreements. It also teaches cooperation rather than character assassination. It is high time that courts ensure that only true facts prevail and outright lies are debarred from TV debates. In *People* v. *Henry Sweet*[1], lawyer Clarence Darrow spoke about justice, liberty and discrimination. He said that though the law has made all humans equal, man hasn't, and until people become decent and liberty-loving, there can be no liberty. It is because liberty and freedom in society are brought by humans rather than by laws and institutions. Law and State cannot compel the people to love and respect other humans. It cannot teach to live with grace and conquer jealousy hate or evil.[2]

It is true that arresting on false allegations other than wrong convictions and excessive punishments, is a miscarriage of justice and a just legal process, but such injustice is the result of a human failure rather than a fault in the legal machinery of a country's justice delivery system. The main cause behind the failure of the justice delivery system is that the law is simply an instrument which is lifeless without the active involvement of human factors. Another shortcoming in law is that principle of justice is most elusive. Two basic concepts in the delivery of justice are that, firstly, justice is fair and just. People feel justice is fair and just when whole process of law and agencies responsible for it act fairly without any bias, discrimination or corruption. Secondly, justice should be true to an old proverb that says, 'justice should not only be done but also must be seem to be done.' At present, almost both concepts of justice are clouded and hazy. Most of the people have lost faith in the fairness of legal process. They feel that justice is discriminatory in favour of rich and against the poor. People believe that the justice delivery system can be easily circumvented, and the process of searching for the truth has become very tough and risky. With such a crisis of

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[1] Closing argument of Clarence Darrow in the Recorder's Court, Detroit, Michigan, Before Hon'ble Frank Murphy (May 11, 1926) available at https://defensewiki.ibj.org/images/c/c5/Clarence_Darrow-_Sweet_Closing.pdf last accessed on 20th December 2022.

[2] Preet Bharara, *Doing Justice: A Prosecutor's thoughts on Crime, Punishment and the Rule of Law* (Alfred A. Knopf, New York, 2019).

confidence and trust, frustration has developed amongst people not because of any failure on the part of law or lapses in the Constitution or Constitutional process, but because legal system has become crowded and is being controlled by those who are delivering justice not only with a closed and bias mindset, but also with inaccurate preconceptions fueled by self-interest. Such people have forgotten that integrity, leadership, moral reasoning, fair trials, and fair decisions are the basic ingredients of the justice delivery system.

II.

The Processes of Criminal Justice Delivery System

1. Concept of Fair Trial

Before discussing the role of a prosecutor in a criminal trial, in the delivery of Justice and in maintaining the rule of law, it shall be pertinent to explain the concept of fair trial. Universal Declaration of Human Rights[3] under its Articles 10 and 11 deals with 'fair trial' in criminal law. Article 10 guarantees that everybody has the right to a fair and public hearing by an impartial and independent Court to address their duties and rights in criminal matters. Article 11 stipulates that individuals accused of a criminal offence are assumed as innocent, until proven guilty by law, and are entitled to all necessary safeguards for their defense during a public trial.

Main attributes of a fair criminal trial according to the provisions of UN Declaration, 1948 include:

1. In an adversarial legal system like India, law must give fair opportunity to the accused to defend himself/herself.[4] Free legal aid services are made available to an indigent accused at the State's cost. Denial of such service shall result in setting aside of trial, conviction and the sentence of the accused.[5]
2. A core tenet of a fair trial is that, the accused remains innocent until proven guilty beyond a reasonable doubt, with the prosecution bearing the responsibility to prove guilt.
3. Trial must be conducted by a competent Court having jurisdiction which shall conduct the trial in an independent and impartial manner.

[3] on 10th December 1948, the United Nations General Assembly adopted the Universal Declaration of Human Rights.
[4] Articles 21 and 22 of the Constitution of India and Legal Service Authorities Act, 1987 and Sections 303 and 304 of the Criminal Procedure Code, 1973 (Cr.P.C.) provides the same.
[5] *Hussainara Khatoon* v. *State of Bihar* (1980) 1 SCC 98.

4. Criminal trial must be held in an open court accessible to public[6].

5. Place of trial should not be highly inconvenient to the accused that may cause any hindrance in preparing for defense.

6. The accused is legally entitled to be informed about the charges against him, and these charges must be clearly presented and explained.[7]

7. Accused must be tried in person so that he may understand the prosecution's case and prepare his defense.[8]

8. The judgment of the Court must be well reasoned and accused must be heard on point of sentence, if held guilty.[9]

9. An essential aspect of a fair trial is the right to avoid self-incrimination, which is guaranteed by Article 20(2) of the Indian Constitution. This signifies, that an accused cannot be compelled to provide evidence that incriminates themselves. The principle is rooted in the legal maxim '*nemo tenetur seipsum accusare*', which translates to 'no one is required to incriminate themselves.' This is commonly referred to as the 'Miranda rule'.

10. Article 20(2) of the Indian Constitution safeguards against the principle of double jeopardy, signifying that 'no individual can be prosecuted or punished more than once for the same offence.' This principle is derived from the legal maxim '*nemo debet bis vexari, si constat curiae quod sit pro una et eadem causa*' which means that nobody should be punished twice for the same cause. Article 20(2) is grounded in the common law principle of '*nemo debet bis vexari*', which translates that 'a person should not face multiple trials for the same offence.[10] The principle is reflected in section 71 of the Indian Penal Code and section 300 of Code of Criminal Procedure.[11]

In the leading case of *Zahira Habibullah Sheikh* v. *State of Gujarat,*[12] the Supreme Court affirmed that every individual is entitled to a fair and just process in criminal proceedings. The Court noted that denying a fair trial represents grave injustice not only to the accused, but also to the victim and society. It emphasized that a fair trial requires an impartial judge, a fair prosecutor, and a serene judicial environment. A fair trial guarantees that decisions are made without partiality, where any form of bias or prejudice influences neither the accused, the witnesses, or the matter at hand. A core tenet of criminal law is that no one can be

[6] Section 327 Cr.P.C.
[7] Sections 228, 240 and 246 Cr.P.C.
[8] Section 273 Cr.P.C.
[9] Section 235 Cr.P.C.
[10] See *Maqbool Hussain* v. *State of Bombay* AIR 1953 SC 325.
[11] *State of Rajasthan* v. *Hat Singh* AIR 2003 SC 791.
[12] AIR 2006 SC 1367.

punished for an offence unless tried in a competent court, with the case managed by a public prosecutor.

2. Inquiry & Investigation

Section 2(g) of the Cr.P.C defines the term 'inquiry' as pertaining specifically to judicial proceedings, excluding any action carried out by police, before or after the filing of a First Information Report (F.I.R). In the leading case of *Lalita Kumari* v. *State of U.P.*[13], the Supreme Court ruled that, an inquiry serves as a preliminary step to uncovering the truth before a trial. The procedure is carried out by the court to establish or verify the facts, in order to decide the subsequent actions under the Cr.P.C. The term 'Investigation', as outlined in section 2(h) of the Cr.P.C., covers a broad scope of activities. It encompasses all procedures involved in gathering evidence.[14] Investigation includes arrest and detention of a person for investigation of an offence.[15] It also includes examining the witnesses, conducting raids and searches[16] and medical examinations.[17]

Thus, Investigation is a process in the criminal justice system to search the truth about the case from a cluster of facts and circumstances. Search of truth is essential to deliver and attain justice. Discovery of truth in a bundle of facts and circumstances requires extensive search and proper investigation. It is for this reason that fairness, effectiveness, rigor, integrity and speed of investigation are some of the dominant factors that determine whether justice will be delivered to the victim or not. Thus, the most important job of a lawyer as an investigator is his eagerness and motivation to find the whole truth in the case. But as most lawyer's objective is to win the case or to build his reputation and earn money, therefore such lawyers not only ignore crucial facts but also conceal the real truth. Any principled lawyer-investigator whose aim is only to achieve justice for the victim must start his inquiry with an open mind without any pre-advance theory or presumption. In criminal law, presumption of innocence of an accused is a sacred principle, so any criminal trial must be conducted fairly by giving weightage to all the evidence and facts. It is sometimes better for a judge to even reserve his judgment before he comes to a fair determination.

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[13] AIR 2014 SC 187.
[14] Provisions relating to investigation by Police are contained under Sections 155, 156, 157 and 174 of Cr P.C. and investigation by the orders of Court are contained in Sections 155(2), 155(3), 159 and 202 of Cr.P.C.
[15] *Baldeo Singh* v. *State of Punjab*, 1975 Cr. L.J 1662.
[16] *Maha Singh* v. *State (Delhi Administration),* AIR 1976 SC 449.
[17] *Ananth Kumar Naik* v. *State of Andhra Pradesh* (1977) Cr. L.J 1797 (AP).

In a criminal trial, blind trust because of the outer appearance of the facts or persons may prove absolutely wrong and damaging. It has been observed in multiple cases that even the famous and super rich persons commit serious and heinous crimes especially financial frauds or crimes of insider trading. They must be treated by law as an ordinary accused as they are not above the law. But in the crimes by rich, famous, celebrities, officials and even ordinary persons, a good lawyer-investigator must take the prevention that no harm or damage is caused to the reputation of suspect. This prevention is necessary not only to save the reputation of suspect but also the reputation, credibility and reliability of investigative agency. But despite knowing that crimes have been committed by powerful persons, it is highly disappointing and damaging truth that most of the important financial or other decisions prone to cheating are still made without proper inquiry because of the political or other influential connections of the accused. Most of the banking or financial institutional frauds have happened because most intelligent bankers or financial professionals make their decisions on the face value of such clients, or their fraudulent credentials or false documentation or after getting influenced by their connections. All these frauds could have been checked and detected on conducting of a proper inquiry and other basic necessary checks that would have saved billions of taxpayers' hard earned money. So, an investigator must be thorough in following the stipulated procedure and established rules and also be a tough minded person so as to not to be cheated by outer appearance of such clients. Toughness is an essential quality while pursuing justice. Investigator must also have personal quality to admit his error and never feel annoyed about it. He should remain calm and compose even if every conclusion made by him is challenged and asked for reconsideration. It has been found that few lawyers and prosecutors have big ego problems and behave in a stubborn manner, but stubbornness and ego problem of a lawyer-investigator can cause grave injustice not only to the victim, but also to the justice system.

Just as even the most perfect laws pose limits on their application in practice, similarly even the foolproof forensic science has limitations in always making the correct analysis. It happens because the officials responsible for interpreting the law or conducting test reports are humans, and they can make errors. Even a very small error or wrong calculation can cause a major judicial disaster. Minor mistakes may result in acquittal of the guilty and holding an innocent person as guilty. During wartime, such acts are considered collateral damage and are usually tolerated by society, but under criminal law, it may result in wrongful arrest or wrongful conviction of an innocent person, which may cause serious damage to him

and his family's reputation. It is almost impossible to assess the total financial and loss of reputation because of a small error. The wrongful arrest, or wrongful conviction or wrongful acquittal not only causes serious harm to judicial process and justice but may become an easy way for invisible judicial corruption or concealing legal incompetence, or politics of revenge. Even if on appeal a wrongly accused person is acquitted or corruption is detected but it remains impossible to explain to everyone about the wrongful acts and shortcomings in the judicial system. Though it is a truth that neither the law can be absolutely perfect, nor the system may function perfectly, or people working in the system can be perfect, yet if each person in the judicial process remains vigilant, rigorous and open-minded, then just justice may not be wrong.

INVESTIGATION IN FINANCIAL CRIMES: The basic component in investigation of financial crimes can be found in the phrase '*follow the money*.' This phrase has now become a part of lexicon. It was coined by a film screenwriter William Goldman for a film '*All the President's Men*.' It has been proved that usually the financial criminals prepare false documents, create multiple number of shell companies, remove fraudulent papers or calls or e-mail trails and leave no records or traces of their incriminating money transactions. These precautions may be called the heart and soul of every crime of money laundering and insider trading, and it becomes difficult for enforcement agencies to prove the crime without the help of an approver or co-accused by use of wiretapping. Recently, use of wiretapping was made to arrest ex-Goldman Sachs banker Brijesh Goel for insider trading when his very close friend and co-conspirator ex-Barclays trader Akshay Niranjan wore a wiretap. Prosecutors say that both made around $280,000 in illegal profits through insider trading between February 2017 and 2018.[18] Thus, to follow the flow of money, from whom to whom and through whom is a crime solving principle in every white-collar or corruption crime.

3. Accusation

The next phase of judicial process is to see whether there is sufficient proof to make a suspect accused of an offence. In Dostoyevsky's Crime and Punishment, it was said that 'even a hundred suspicions don't make a proof.' A 'accused' is someone who has been officially charged with a crime, leading to their prosecution.[19] A formal accusation arises from the

[18] Greg Farrell and Bloomberg, "Financial bromance ends with pal wearing a wire in insider case", *News India Times*, 24th August 2022 available at https://www.newsindiatimes.com/finance-bromance-ends-with-pal-wearing-a-wire-in-insider-case/ last accessed on 20th December 2022.
[19] *M.P. Sharma* v. *Satish Chandra* AIR 1954 SC 300.

submission of a First Information Report (F.I.R) and the subsequent formulation of charges.[20] The phrase 'accused' describes a scenario, in which a person is formally charged with committing an act, that is punishable under the Indian Penal Code, 1860 or other relevant law during a criminal prosecution.[21] It is also a basic requirement of a fair trial that the person accused of an offence must be informed about the accusation before initiating A criminal trial so that he may prepare his defense. The accusations are formulated and recorded in writing clearly mentioning the offence and relevant sections of IPC or any other law. Charge is then read and explained to the accused u/s 228(2), 240(2) and 246(2) of Cr.P.C.

Accusation is the final confrontation in criminal justice system. Usually, inquiries and investigations are quiet. Suspicion is kept in confidence, but accusations are concrete and made public. The decision to make public accusation may be scary especially in those cases which still need some more investigation. The accusation must be made at the time when all evidence are thoroughly evaluated, and there are high chances of success in the case. It may become sometimes difficult to make decision to frame a charge against a person who may pose threat of filing a case if information is either imperfect or incomplete, but even in such cases prosecution has the responsibility to protect other people. A Prosecutor may sometimes be confused about how much more he should wait and how much more evidence should be collected. A prosecutor must have the ability to draw a difference between a fantasy and criminal conspiracy of a suspect.

For example, in cases where a terrorist had made a threat call, or a person had discussed with friends his plan to kill his landlord, the prosecutor might face a dilemma as to what to do, because on one hand human life is under a threat, but on the other hand proofs are not sufficient or concrete. In such cases of terrorism or mass attacks, a prosecutor must act according to relevant facts, pertinent law and mainly his conscience and inner voice. If he drops the charge in such cases then people may start complaining, protesting and may make allegations of corruption in case any harm is suffered, or if terrorist shoots a person, or if an innocent is killed. Public demand for an action may be consistent with law and justice, but sometimes it is not so. In justice delivery such a phase to explain why prosecutor dropped the charge is not easy to explain. Justice is more important than winning the case and the right action is always better than a swift action.

[20] *Balkishan A. Devidayal* v. *State of Maharashtra* AIR 1981 SC 379.
[21] Amin v. State, AIR 1958 All 293.

People are detained, arrested and made accused of their criminal act not for fantasy and thoughts about the crime. Thoughts are not capable of detection, so they are beyond any prosecution. But this theory has its own limitations. Expression of criminal thoughts either in writing or by expressing them to others cannot be considered simply as thoughts which are non-actionable. They reflect the malicious intent and when it is combined with a concrete action, it results in a crime. Under criminal law, conspiracy is defined as an agreement between two or more persons who have a meeting of minds to break a law.[22] Conspiracy requires no action, but just an expressed thought which has been accepted and agreed by other person or persons. Criminal code says that such kind of expression of thought is dangerous to society and is indictable and punishable as a crime. In *Yogesh @ Sachin Jagdish Joshi* v. *State of Maharashtra*,[23] Supreme Court held that, to constitute criminal conspiracy, meeting of mind of two or more persons is *sine qua non*. But it may not be possible to prove an agreement between them, as it can be inferred from the surrounding circumstances. So, it is the prosecutor's job to detect the risk of serious crimes specifically when the crime has not yet been committed. This job becomes more important in cases of threat of terrorism. It is the prosecutor's discretion whether to prosecute such a person who has made threats, although on appearance he seems to be harmless and mentally unstable, not competent to cause any harm.

However, there have been many cases where an unarmed person or a person who may, on appearance, seem to be harmless, having ill intentions towards a particular community, had made serious terrorist attacks even with a kitchen knife or making a car as a weapon. Such type of crimes needs no planning, no preparation, no expertise and no competence, but simply an ill will and time of few seconds of ignition in his mind to stab or to run amok a car on the crowd. Thus, even if a remote possibility of harm is viewed from the given threats, prosecutors must initiate an action because it is always uncertain whether the threats are real or empty. This is the reason that every threat of terrorism or killing another human needs to be visited by an enforcement agency. Such visits are simply to inquire the place of threat, assess the threat and take stock of the whole situation and background of the suspect. Such visits are not done with a view to making an arrest because most of the threats do not become real and need any accusation and arrest.

Thus, how to make a demarcation between a thought and a real threat is not clear. It can only be assessed by guessing or with experience as to at what time and at what point such person

[22] Section 120A and 120B of Indian Penal Code deals with offence of conspiracy.
[23] AIR 2008 SC 2991.

can push his thoughts into action. It also depends upon his mental stage. In such cases, it is also hard to decide when is the appropriate time to make an accusation. Accusation may be too early or too late, but any action of accusation must be balanced against the fear of error and an urgency to take an action. Every institution in its justice delivery system is aware that its mission is that no harm to any human or member of public should be caused. They must determine the time of action even when information is not mature or perfect and lacks omniscience. A further challenge in the criminal justice system is that the burden of proving the cause of action falls on the prosecution and the accused does not have to prove their innocence. He is not required to prove that he will not take future action. It is for those who are responsible for keeping the public safe to act justifiably with more aggressiveness and swiftly when a harm can lead to massive consequences. Justice is more important than winning a case and the right action is always better than a swift action.

The profession of a prosecutor is to make public accusation against the accused whether it may be weak or strong. But sometimes, it results in violent protests from the accused and his supporters, especially if the accused is very powerful and belongs to the ruling class. These powerful people not only attack the prosecutors but also the agencies responsible and never feel ashamed for disobeying the rule of law. They do not believe in proving their innocence in courts. They argue that they have been made accused because prosecution agencies were biased towards them for reason of their caste, ethnicity, race or religion or due to politics of revenge. The best way to avoid such accused is to keep silence. But if such criticism starts to damage your reputation than it definitely stings. But it is better to adopt Aristotle's advice who once said that 'to avoid criticism, say nothing, do nothing, be nothing'.

These words can make prosecutors comfortable as such attacks will be resolved in time. But, in those cases where accused belongs to the supreme political ruling class, who have always believed that they are above law, these attacks do not persist to abuses, but extend to interfering with investigation, removal of prosecutors, transfer of police officers, reassignment of judges, blocking journalists from reporting their vindictiveness etc. Sometimes, even ordinary criminals attack the prosecutors in the court, and sometimes, the situation becomes too dangerous when the accused incite attacks, demonize the justice seekers, jeopardize justice and threaten to destroy the faith of the public in the judicial system. But a good thing for the justice system is that people still are hungry for justice by rule of law. They still have hope in the judicial system that no man is above law. His power, position and prestige cannot immunize his liability and punishment. People still believe that

the rich and powerful who have committed corruption should be caught and accused. Corruption in business and politics can end if public is bold enough to fight for punishment to the corrupt. People hope that the government will act honestly and work according to the rule of law. People still believe that prosecutors can bring the corrupt powerful to justice in all forms of crime, but they forget that prosecutors are only law enforcers, not saviors.

4. Framing of Charge

Before all criminal trials, the accused is informed of the accusations made against him in the form of a charge which must be formulated with great precision and clarity. It means that charge is a notice or information to the accused by which accused is called upon to face criminal trial.[24] Sections 211 to 224 of Cr.P.C. deals with framing of charge. These provisions ensure that there shall be a fair procedure under which an accused shall be tried. In *Esher Singh* v. *State of Andhra Pradesh*[25] and *Vinubhai Ranchodbhai Patel* v. *Rajivbhai Dadabhai Patel,*[26] the Supreme Court clarified that, a charge represents a clear and detailed allegation made against an individual, who has the right to be fully informed of its specifics. The Court is responsible for framing the charges and can modify or include additional charges until delivering its judgment.[27] Once a charge is framed, the accused is either convicted or acquitted, and the court cannot drop it undecided.[28]

The first precondition in framing the charge is that the prosecutor must deliberate it without making any predetermined conclusion. He must look into the evidence, hold interviews with the witnesses, look into the possibility of innocence and also ensure that the investigation is not biased. Before approving the charge, he must again check facts, reasoning and bias. All these steps are fundamental in the delivery of justice because false accusation or criminal charges against any person disturbs not only his life but also the lives of all those who are closely related to him. Reputation and personality of any accused even on acquittal after a trial or on appeal shall never be the same in society or friends. He may have also become unemployed or bankrupt by spending a huge fortune on litigation. So, a decision to charge a person must be fair, just and supported with concrete evidence; otherwise, a media trial will publicize serious allegations against the charged person. So, prosecutors must be just, and fair minded not only for their own reputation but also for the institution and also for the suspect.

[24] *V.C. Shukla* v. *State (CBI)*, 1980 Supp. SCC 92.
[25] (2004) 11 SCC 535.
[26] (2018) 7 SCC 742.
[27] Section 216 Cr.P.C.
[28] *State of Maharashtra* v. *B .K. Subbarao* 1993 Cr. L.J. 2984 (Bom).

Computers, electronics or algorithms cannot scientifically calculate framing of charge. Prosecutors can also be biased in an imperfect and biased political system. There are some prosecutors who always make objections to a charge and thus undermine justice and accountability. It is a fact that justice is always done by the humans.

FRAMING OF CHARGE BY THE COURT: Sections 227 and 228 of Cr. P.C. must be read together as they ensure the Court that the accusation made against the accused is not frivolous and the FIR and witnesses disclose the ingredients of the offence alleged against him.[29] Section 228 allows the Judge, after examining the case and considering the evidence, to frame a charge against the accused, if there is reasonable basis to believe that they have committed the offence.

In the criminal justice system, the pursuit of justice and the operation of legal processes commence as soon as the investigation and inquiry are initiated. Suspected persons and places are kept under surveillance, records are searched, telephones are tapped, and if needed witnesses are wire tapped. Such movement of judicial process works on a single agenda, which is search for the truth and for holding the suspect responsible and accountable. It may be true that law enforcement like other business organizations may desire some return on investment of public money which they spend on judicial process. It is also true that enforcement agencies take much care of prosecution witnesses and approvers, but their ultimate objective is to prove guilt of the accused. So, prosecution branch does not work for profit. Profit and justice totally differs as justice mostly suffers a loss on its investment and it fails in most of the cases. In general, even after a lengthy investigation, agency does fail to get sufficient evidence to prove crime. In such a situation, there is only one decision: to drop the charge and lose all expenses incurred during the investigation. Thus, to become a competent prosecutor or lawyer, investigation is a judicial process in which one learns what, why and how it happened, and ways to find the truth and to hold someone accountable for crime or harm caused. Punishment and accountability of a guilty is crucial part of justice. But all the misdeeds are not crimes, and all the suspects are not guilty. So, a competent prosecutor must keep in mind that he will operate without any bias and without rushing to a conclusion. If there is no case against the suspect then dropping of charge is the only option, no matter how much investment has been made in that case.

[29] *Prem Kumar* v. *State* 1994 Cr. LJ 3641 (Kant.).

IV.

Discretion to Drop the Charges: Sections 227 and 258 of Cr.P.C.

If political rulers or bureaucrats exercise their permissible authority to fullest extent than they can become autocrat. Similarly, if prosecutors exercise in full their legal authority of discretion, judgment, wisdom and restraint etc. they can become the law themselves. So, both the legal and constitutional authority must use discretion fairly, without bias and proportionality. Justice will not prevail if every petty crime is prosecuted to fullest extent. It is always better that every small violation of the law should not be prosecuted as a serious crime. Here comes the role of discretion, depending upon the circumstances. In the social or legal arena, any leniency in the enforcement of law may indeed prove costly, as it may result in the loss of respect for rules and decorum, but it is also true that strict liability for every conceivable infraction is insidious. To forgive with a warning is a much better option in petty cases. For example, in crimes of sex trafficking, violent criminals victimize and enslave helpless women for sex trade. Though sex traffickers are severely punished prostitutes are not charged with any crime. It is because prostitutes are treated as victims, not accused, even though prostitution is a crime. Forgiveness with a warning is better for minor traffic violations. But trigger-happy enforcers justify that they rely on the rule of law and not exercise discretion. They say that law demands strict action even though discretion is available. They cover their authoritative decisions by citing the Rule of law. But every law leaves a scope for its ethical interpretation. For example, authoritarian government uses criminal prosecution as the severest tool to exploit and punish people although law provides other ways of imposing fines and issuing a warning to maintain discipline and peace and sometimes dropping of the charges.

Another example of dropping the prosecution is recent cases of financial frauds in the banking sector. In private bank frauds, people lost their homes, savings, jobs, etc. Being angry, they demand the arrest of these bankers because they have ruined the country's economy and literally thrown the people on the road. In such cases, there is always tremendous pressure on the government and law enforcement agencies to prosecute these fraudulent people and hold them accountable. But in most of these bank fraud cases, enforcement agencies fail to find a clear and provable intent to steal the savings of people. Top management of these banks and financial institutions evade their culpability, accountability, liability and responsibility by saying they made decisions based on the

opinions of third-party professionals. Thus, on appearance, the conduct of top officials appears to be criminal, but on investigation, it is found that there is no provable crime. For the prosecution, such cases become murky because a conviction can be procured only by proving the mental intent of the suspects. It does not mean that bankers were not engaged in criminal conduct, but our legal system wants concrete proof of their engagement in criminal conduct with mental intent. Proving beyond a reasonable doubt is a basic legal mantra. Only accident, mistake, negligence or recklessness is not sufficient for punishment. So, ultimately, the prosecution has to drop the charges.

Sections 227 and 258 of Cr.P.C. deals with the powers of the Court to discharge or withdraw or stop proceeding in the case. In *Union of India* v. *Prafulla Kumar,*[30] the Supreme Court emphasized that a judge role is not only to frame charges at the prosecution's request. But they must apply judicial discretion to assess the facts to decide whether it merits proceeding to trial. If the judge finds that there is inadequate basis to continue with the case, they may discharge the accused, explaining their decision. In *Alamoham Das* v. *State of West Bengal*[31] the Supreme Court held that if the court does not find prima facie evidence, then in the interest of justice, it is their duty to discharge the accused. The Court also has the power in exceptional cases to stop the proceedings at any stage before the pronouncement of judgement by recording the reasons in writing as statutorily required.[32] Section 257 of Cr.P.C. provides for the withdrawal of the case with the consent of the Court.[33]

V.

No Constitutional Recognition to Law with Retrospective Effect

Article 20 (1) of the Indian Constitution stipulates that a person can be convicted for an offence if the charge pertains to a crime defined by the law in effect at the time when the alleged act occurred.[34] Retrospective legislation is contrary to the well-settled principle,[35] however, to attain justice, proof against an accused must be retrospective and based upon the crime that had happened, which must be sufficient to prove in court. But sometimes accused is not apprehended based on his past conduct because prime job of enforcement is to protect

[30] (1979) 3 SCC 4.
[31] AIR 1970 SC 863.
[32] *Public Prosecutor* v. *Rajgopala Naidu*, 1960 Cr. L.J 1001 (Mad.).
[33] *K. Sitaram* v. *CFL Capital Financial Service Ltd* (2017) 5 SCC 725.
[34] *Dyal Singh* v. *State of Rajasthan*, AIR 2004 SC 2608.
[35] *Hitendra Vishnu Thakur* v. *State of Maharashtra* AIR 1994 SC 2623.

than to punish. Such an arrest may be a preventive arrest to charge a person if there is a threat of harm to him.

VI.

The Principles of Interrogation

Sections 156, 157, 160, 161, and 164 of Cr.P.C. and sections 24 and 26 of Indian Evidence Act deal with the accused's investigation, statements and confession. Section 156 of the Cr. P.C. empowers the officer-in-charge of a police station to investigate any cognizable offence without needing the Court's authorization.[36] Section 157 of Cr.P.C. says that such police officer should, within a reasonable time, send a copy of the FIR to the Court having jurisdiction so that the Court may be kept informed about the investigation.[37] Section 160 of Cr.P.C. states that in the course of the investigation, a police officer may call the person who can supply necessary information regarding the commission of the offence. But he must visit the residence of a male under the age of 15 years and also in case of a woman or a physically disabled person to collect such information. A direction mandating a woman to appear at a police station contravenes section 160 (1) of Cr. P.C. Such violations must be addressed promptly, as police officers must not act above the law.[38] Section 164 of Cr.P.C. deals with manner of recording the confession and statements, and their admissibility and relevance as evidence in a trial.[39]

Confessions and statements can be recorded before the commencement of trial.[40] Section 24 of the Indian Evidence Act of 1872 renders a confession inadmissible if the court believes it was made under duress, inducement or promise. It means confession is a kind of admission and, as such, is relevant but, under certain circumstances, becomes irrelevant. Therefore, Section 24 of the Indian Evidence Act, 1872 sets forth a rule that excludes certain confessions.[41] Section 26 of the Indian Evidence Act elaborates on the principles established under section 25 of the Indian Evidence Act. The purpose is to safeguard against the potential abuse of authority by the police. Section 26 of the Indian Evidence Act states that, confessions by an individual in custody to someone other than a police officer are not admissible, unless given in the presence of a Magistrate. Sections 25 and 26 of the Indian

[36] *Jamuna* v. *State of Bihar* AIR 1974 SC 1822.
[37] *Alla China Apparao* v. *State of Andhra Pradesh* (2003) Cr. L.J. 20 (SC).
[38] *Nandini Satpathy* v. *P.L.Dani* AIR 1978 SC 1025.
[39] *Shiv Bahadur Singh* v. *State of Vindhya Pradesh* AIR 1954 SC 322.
[40] *Rajaram* v. *State of U.P.*, AIR 1966 All 192.
[41] *Palvinder Kaur* v. *State of Punjab*, 1953 SCJ 545.

Evidence Act articulate distinct principles. Specifically, Section 25 prohibits confessions made to a police officer, regardless of the individual's custodial status. Section 26 indicates that any confession made to another person, including a fellow inmate, doctor, or a visitor, while in police custody are not admissible unless it is made before a Magistrate.[42]

Most of the time, confessions are extracted by extreme cruelty. Torture to extract a confession is used not only in movies but also in real life. However, only the truth matters in the court, which is extracted by humanity and patience. All societies accept the civilized and scientific techniques of eliciting truth. For extracting a confession, a moral teaching story relates to World War II. It was proved that war is won not only by the bombs, bullets, tanks, ships and fighter planes but also with intelligence gathering, surveillance and the art of spying. During that period, the most adept investigator in Germany was a remarkably quiet individual, as detailed by Raymond F. Toliver in his book 'The Interrogator: The Story of Hanns Joachim Scharff, master interrogator of the Luftwaffe'. The interrogator showed that a soft approach can be more successful than forceful methods in extracting confessions or secrets. Hanns Scharff proved that rapport is an effective catalyst to know the secrets. He proved that effective interrogation is an art that cannot be learned from books. It needs rapport and sympathy with the suspect and by use of human psychology and understanding. Though sometimes tougher interrogation methods could be necessary, but they do not always yield good results in learning the true motive or intent behind the crime. Hanns Scharff failed the theory that only harsh techniques can produce information or truth. Torture is not an effective means of acquiring information and truth, but it definitely can result in false confessions.

VII.

Approver or Cooperating Witnesses: The Criminal Turned Prosecution Witness

Section 306 and 307 of the Cr. P.C. addresses the granting of a pardon to an accomplice in cases involving serious offences committed by multiple individuals, enabling the prosecution to rely upon the testimony of a pardoned individual to resolve a case.[43] According to Section 306(4) of the Cr. P.C., an approver is required to testify in Court, and the accused has the right to cross-examine that witness. The approver shall disclose all evidence before his pardon so that the accused has an opportunity to prove the untrustworthiness of the

[42] *Gurdeep Singh* v. *State (Delhi Administration)*, AIR 1999 SC 3646.
[43] *State of Andhra Pradesh* v. *Cheemalapati Ganeswar Rao*, AIR 1963 SC 1850.

approver's evidence.[44] In *Sitaram Sao@Mungeri* v. *State of Jharkhand,*[45] the Supreme Court clarified that an approver should be examined only after receiving a pardon. Once pardoned, the individual is considered as a witness and must be examined in the presence of the accused, who has the right to cross-examine him. In *Bangaru Laxman* v. *State,*[46] the Supreme Court determined that granting a pardon to an approver before filing of a charge-sheet is justified to prevent any injustice to the accused and to ensure that the trial may be expeditiously disposed of.

In a criminal trial, if a criminal turns as a prosecution witness, it makes the approver as an investigative tool. Such approvers are informers who inform about the activities of their former colleagues. Transformation of a Criminal as an Approver is a play with danger and betrayal. In general, former criminals become approvers to get less or no sentence for their crimes. Making a criminal an approver is the most immoral and unethical association in criminal justice, wherein both the criminal and law enforcement officials have to trust each other. Criminal has to trust law enforcement officers for leniency, and agencies have to trust approvers to get convictions of other guilty criminals. To become an approver is dangerous as it may save him from jail but can put him into a hospital or coffin.

However, for prosecution, the approver is a priced catch because, being an insider and partner in crime, he can provide all the details and modus operandi of the crime. Most of the financial crimes and frauds have been uncovered by insiders. Anyone who has information about the criminals can be a potential approver, but he may also cause damage to prosecutors because he may not be telling the truth behind the crime and creating false facts and can also in Court can repulse from facts. So, a good prosecutor must corroborate and deeply vet the truthfulness of the approver's testimony. The fairness of using an accomplice to convict other criminals also presents a legal, moral and ethical question in criminal justice. Fairness is in the approver's cooperation to catch the boss, not the small operators. It will be against morality if main accused gets lighter sentence by becoming an approver and implicating only a small courier. Approver may repulse when defense lawyer questions him for his dishonesty and fabricating lies to save his skin.

Some moral questions about using an approver include whether it is right for the prosecution to make a deal with a criminal to catch another criminal. Which of the devil can be believed

[44] *Kalu Khoda* v. *State,* AIR 1962 Guj. 283.
[45] AIR 2008 SC 391.
[46] AIR 2012 SC 1377.

more? criminals become approvers for leniency, when they are arrested, or when the trial comes close, or they become approvers because of betrayal by their partners in the crime. Many approvers have nothing much to disclose. It raises a moral question whether it is fair to reward an approver in direct proportion to information he reveals about the involvement of a famous person in a crime and how serious the crime is. Another moral question is if the approver has no real boss to expose, then why should he get less leniency? One more moral question about the approver is whether he gets too much benefit in the bargain. or whether this arrangement is fair to the approver? or whether the agency is using the approver as a means to an end, in a utilitarian way, or whether agency is denying to an approver his inherent respect and dignity and is simply using him as a device and tool for public good calculated by cost-benefit analysis or whether he is being used as a cog or lever in the machinery of justice?

But in practice, the time from which the prosecutor starts using a criminal as an approver to catch another criminal, the process of humanizing of approver starts therefrom. Prosecution by asking him endless questions comes to know about him, the history of his life, his childhood, his schooling, his family, his neighbourhood, his disciplinary problems and beating, his mental health, any drug problems and whether any member of his family suffered at the hands of criminals. Prosecution creates a bonding by providing him food and other facilities. These sympathetic actions attempt to make the approver again a good human being.

But another dimension of an approver is that in his days of a crime, he may have been killed, maimed, beaten, robbed or may have broken the bones of many innocent humans, but now he becomes the prosecution's partner to make all those criminals accountable against the whom prosecution had no concrete evidence. He is now helping prosecution in solving the crime and thus delivering justice to victims. He is an ally in maintaining rule of law. He may have been a dreaded criminal, but after switching sides, he is in the company of good persons and can be trusted to testify on behalf of the prosecution. But a prosecutor must not forget that he is only using the approver. He should not develop any affection towards him and should maintain distance. To make an approver on cost-benefit analysis is cruelty to an approver because to leave his criminal life, he puts his family to danger, has to leave his family, friends and all other relationships and in rest of his life lives under false identity.

VIII.

Importance of Approver in the Criminal Justice

In the criminal justice system, a crime allegation should be made against a person only if the prosecution can prove it with independent and concrete proof; otherwise, it will be a grave injustice. Criminal suspects are routinely charged but ultimately acquitted without any proof, or corroboration or any witnesses. However, it is an approver who can help in proving other criminals as guilty. In our criminal justice system, to become an approver, he has to admit all his previous criminal conduct, whether found or not found by the authorities. The main reason behind this policy is to present an approver before the court as a holy cow who is now clean, reformed and repents his previous crimes and is prepared to suffer all consequences for his criminal conduct and has volunteered to become an approver. Approver also speaks about his crimes in court which were not known earlier. His conduct of transparency and acceptance of responsibility is weighed during the sentencing. In this process of redemption and atonement[47] in criminal law, it is not enough to admit some crimes about which enforcement agencies knew but also those crimes which law does not know. To get freedom, liberty and absolution, he must confess all his sins. In criminal justice, truth is a nucleus for deciding a case. Such truth should not be either partial or most part of truth. It should be a complete truth. The witness on oath is required to speak not 'just the truth' but 'whole truth' and 'nothing but the truth'.

The public's disillusionment with the government, enforcement agencies and prosecution is at an unprecedented low level. Common people are cynical, jaded and disillusioned. Corruption in all spheres has increased. Elected officials who had criminal records before being elected regularly commit crimes. They are in Parliament or Assembly because of their criminal strength. Such elected members commit double transgression. They violate not only the law but also constitutional oaths. A corrupt elected member gives a bad name to the institution and casts a shadow on the bodies they serve. It has even adversely affected honest members who are also viewed with suspicion. A good government means an honest democracy. It is about the people's will rather than politicians' self-aggrandizement. So, using approvers prosecution is not defrauding the public but doing public service. Criticism to using a cog may be fair or it may not be complete justice, but it is overall justice. Corruption will continue to prevail Until fairness and transparency are brought into the electoral process. Corrupt politicians will remain unaccountable if approvers are not used. The prosecution's ultimate goal is to get justice for the victims, whatever the means. The path to justice had

[47] Section 306 of Cr.P.C.

never been easy as it has always faced distractions, detours and trade-offs. Prosecutors can challenge these hurdles only by using approvers. But every tool carries with it danger and risks, so prosecutors must be tough and delicate while navigating the path to justice.

IX.

Innovations in Justice Delivery System

Delivery of justice requires intelligence, diligence, patience and dedication of prosecutors, lawyers and Judges and need for new innovations. Even a minor mistake can result in serious miscarriage of justice; similarly, even small innovations and improvements in criminal procedure can make the justice delivery system swifter and more effective. However, innovations are not easily adopted in the most conservative system of law. Of all the other professions, the legal profession is the most static, and the legal profession, the prosecution, is the most conservative. There is an unwritten rule that prosecution must follow precedents or old regulations. Any attempt to not to follow the precedent may draw punishment if any wrong happens. Prosecutor's work, training and development of personality is such that they feel averse to any change, creativity or innovation. There is also a cultural difference between the industry, which easily adopts new technology and innovations, and the government.

But adopting a good tradition is useful. Simply saying no to any change cannot always be beneficial. Change does not mean being reckless or radical; it can be a simple change or innovation. Improvements in procedure come when someone dares to think in a different way. Criminal investigation requires skill, experience, expertise, patience and dedication, and it may be more effective if a catalyst of innovation is added. For example, wiretapping and call tapping were previously authorized in cases of narcotics and organized crime investigations, but they may be similarly effective in insider trading and bank frauds. The reason behind it is that the crime of insider trading depends upon illicit communication of giving a tip of material non-public information by an insider to another person. In insider trading cases, it is very hard to prove a tip. Defence lawyers also oppose innovation. Any innovation in criminal enforcement that makes it easier to prove a crime and to charge and convict the suspect for criminal violations is opposed by defence lawyers who plead violations of precedents and privacy. Now, financial institutions are required to file suspicious activity reports on insider trading, financial frauds or terrorism funding or money laundering.

JUDICIAL TRENDS ON ADMISSIBILITY OF DIGITAL EVIDENCE WITH SPECIAL REFERENCE TO SECONDARY EVIDENCE

Dr. Atul Jaybhaye*

Abstract

The Information Technology Act, 2000, grants legal recognition to electronic records and digital signatures, while Sec. 65-B of the Indian Evidence Act, 1872, outlines the procedure for the admissibility of electronic records as evidence in court. As a result of the Information Technology Act, 2000, electronic records can now be presented in court in various formats, such as CDs, DVDs, hard disks, pen drives, and email messages. The Hon'ble Supreme Court has extensively interpreted Sec. 65-B of the IEA, 1872, through various judicial rulings. This paper discusses landmark cases related to the admissibility of digital evidence and addresses emerging issues and challenges. Additionally, it provides a brief overview of the need for and procedures involved in preserving digital evidence.

Keywords: Digital Evidence, Admissibility, Secondary Evidence.

I.
Introduction

The Indian Evidence Act, 1872 (hereinafter IEA, 1872) plays a crucial role during judicial proceedings. It states various types of evidence and the ways in which it can be produced and proved before the court. Digital evidence is one of them. Before going into the details of digital evidence and modalities of its admissibility in court, we need to understand first the meaning of the term 'evidence'. Evidence has been defined under the IEA, 1872 which means and includes(1) "all statements which the Court permits or requires to be made before it by witnesses, in relation to matters of fact under inquiry, such statements are called oral evidence; (2) [all documents including electronic records produced for the inspection of the Court], such documents are called documentary evidence."[1] Here, it is pertinent to note that evidence is of two types i.e. oral and documentary evidence. Documentary evidence includes electronic records as well. The term 'electronic records' was inserted in the IEA, 1872 by

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[1] The Indian Evidence Act, 1872 (Act 1 of 1872), s.3.

way of the Information Technology Amendment Act, 2008. When such electronic records are produced before the court as evidence then it is usually referred as electronic evidence or digital evidence.

Further, The Information Technology Act, 2000 (hereinafter IT Act, 2000) grants legal validity to electronic records and digital signatures. "Electronic record means data, record or data generated, image or sound stored, received or sent in an electronic form or micro film or computer-generated micro fiche."[2] Whereas, "digital signature means authentication of any electronic record by a subscriber by means of an electronic method or procedure in accordance with the provisions of section 3."[3] As documents can be authenticated by way of handwritten signature likewise electronic records can be authenticated by way of affixing digital signature. A digital signature is frequently used for filing income tax return, government tender, e-signing of agreements and contracts etc. Due to the enactment of IT Act, 2000 production of the evidence in the form of electronic record has become more easier and hassle free. However, if such digital evidence is secondary, then production of the requirement of certificate to be produced under Sec. 65-B (4) of the IEA, 1872 needs to be fulfilled by the parties for the admissibility of secondary evidence in the court. As stated earlier, documentary evidence can be categorised into two i.e., primary[4] and secondary evidence.[5] The certificate outlined in Sec. 65-B (4) of the IEA, 1872, must be provided and signed by a person who holds a responsible official role concerning the functioning of the device in question. The court should admit and accept the secondary evidence of the electronic record produced by the parties subject to the conditions to be fulfilled as per Sec. 65-B of the IEA, 1872.

A three-judge bench of the Supreme Court recently ruled that obtaining a certificate under Sec. 65-B (4) of the IEA, 1872, is a prerequisite for the admissibility of electronic records as evidence.[6] Prior to this ruling, the Supreme Court in 2018 had stated that providing a

[2] The Information Technology Act, 2000 (Act 21 of 2000), s. 2(t).
[3] The Information Technology Act, 2000 (Act 21 of 2000), s. 2(p).
[4] The Indian Evidence Act, 1872 (Act 1 of 1872), s.62. Primary evidence means the document itself produced for the inspection of the Court.
[5] The Indian Evidence Act, 1872 (Act 1 of 1872), s.63, Secondary evidence means and includes –
(1) certified copies given under the provisions hereinafter contained;
(2) copies made from the original by mechanical processes which in themselves insure the accuracy of the copy, and copies compared with such copies;
(3) copies made from or compared with the original;
(4) counterparts of documents as against the parties who did not execute them;
(5) oral accounts of the contents of a document given by some person who has himself seen it.
[6] *Arjun Panditrao Khotkar* v. *Kailash Kushanrao Gorantyal*, 2020 SCC 571.

certificate under Sec. 65-B (4) was a procedural step, not an absolute necessity. It held that a party not in possession of the device from which the electronic document originated could not be compelled to produce the certificate. The Court indicated that the requirement of Sec. 65-B (4) applies only when the electronic evidence is being submitted by someone who has control over the device and can thus provide the certificate. However, if the device is not in the individual's possession, Secs. 63 and 65 remain applicable.[7] This article will further explore several other notable judgments on the admissibility of digital evidence.

II.

Digital Evidence – Meaning and Concept

Digital evidence comprises data stored on cloud services, where the device and storage infrastructure are indeterminable; third-party storage platforms; and social media platforms, which again are hosted in multiple jurisdictions. Mostly emails and CCTV footage or other recordings and imagery form part of evidence submitted in civil and criminal cases. Evidence may be given even of chat sessions which may be in-game sessions or of data stored automatically by Internet of Things (IOT) devices such as even fit bits or digital assistants like Amazon Echo.[8] Digital evidence is inherently invisible to the human eye, requiring specialized tools for its identification and development. Therefore, it is logical for the handling of digital evidence to mirror the process used for paper evidence. Since each step involves specific tools or expertise, the procedure must be thoroughly documented, reliable, and repeatable. Additionally, the process must be presented in a manner that is clear and understandable to the court.[9]

It is well-established that global transactions are becoming increasingly electronic. A natural consequence of this trend is that courts are now frequently dealing with electronic evidence, ranging from CCTV recordings to emails, highlighting their importance. However, despite their evidentiary significance, electronic records face challenges not encountered by physical evidence. They can be easily created, copied, modified, deleted, and transferred across different mediums. Digital records are prone to manipulation, leading to concerns about their

[7] *Shafhi Mohammad* v. *State of Himachal Pradesh,* (2018) 2 SCC 801.
[8] N.S. Nappinai, "Electronic Evidence -The Great Indian Quagmire" Volume (2019) 3 SCC J-41.
[9] Swati Mehta, "Cyber Forensics and Admissibility of Digital Evidence" Volume (2012) PL January S-23, simultaneously published in the SCC Journal Section at (2011) 5 SCC J-54.

reliability and accuracy. This creates a conflict between their relevance and admissibility as evidence, an issue acknowledged by legal systems worldwide.[10]

Increasingly, the outcomes of both civil and criminal trials rely heavily on digital evidence. This can include emails, text messages, social media posts, or website content, and it often serves as the most compelling evidence in cases, particularly when addressing issues related to intent, motive, mental state, or physical condition. This reliance on digital evidence is hardly surprising, given the rapid adoption of low-cost, internet-enabled digital media. Individuals, businesses, and government entities have integrated digital technology into almost every activity—whether lawful or unlawful, genuine or harmful. With the fast-paced evolution of digital technology, it often feels like we are constantly trying to keep up with the latest advancements. Ironically, our grasp of how these technologies function seems to be inversely related to our growing dependence on them in every aspect of our professional and personal lives.[11]

III.

Electronic vs Physical Document: Distinction

In all advanced legal systems, documentary evidence holds particular significance. Electronic documents, therefore, constitute a crucial form of electronic evidence and serve as an excellent example to highlight key characteristics of such evidence. Given the importance of documents in daily life and how we manage them as folders, papers, and photocopies, many software applications are designed to replicate the appearance and handling of traditional paper-based stationery. As a result, we create digital versions that resemble paper documents, sometimes even featuring turning pages like those found in e-readers displaying e-books and e-journals. We organize these digital documents into files and folders, disposing of them in virtual "trash bins." Similarly, emails are crafted to mirror traditional letters, complete with envelope icons for the inbox and pencil icons for composing messages.[12] This artificial familiarity can lead to the mistaken belief that an electronic document exists on the computer as a single, intact entity, preserving its structure even when the file is closed or the computer

[10] Ashwini Vaidialingam, "Authenticating Electronic Evidence: §65B, Indian Evidence Act, 1872" Volume (2015) 8 *NUJS L Rev* 43.
[11] Paul W. Grimm, "Authenticating Digital Evidence" 31 GPSolo 47 (2014).
[12] Burkhard Schafer and Stephen Mason, "The characteristics of electronic evidence" *University of London Press*; 21-22.

is turned off, much like a paper document stored in a folder. Such a simplistic view overlooks the key differences between electronic and paper documents and may overestimate their reliability. Conversely, a more knowledgeable user might recognize the processes designed to imitate the look of a paper document and consequently dismiss all electronic evidence as inherently deceptive, unreliable, or inauthentic, rather than understanding it as a different form of documentation.[13]

With paper documents, any alterations leave physical marks, allowing us to distinguish between the original and its duplicates—a concept well-recognized in evidence law. These items have distinct physical characteristics. However, this distinction becomes complicated in the electronic realm, where original and copy are often indistinguishable. Moreover, simply working on a digital document can automatically generate multiple copies on the computer without the author's awareness, sometimes preserving earlier drafts even after the document is finalized. Electronic documents thus have unique characteristics that pose challenges not encountered with their physical counterparts.[14]

IV.

Challenge Ahead in Digital Evidence

Some might argue that the significance of digital evidence is overstated and that it is simply another form of evidence that law enforcement, prosecutors, defense attorneys, and judges must handle. What is so special about it, and why all the attention? But is that really the case? Is digital evidence just another type of evidence that does not warrant special consideration? I strongly believe it is not. Digital evidence is fundamentally different from other types of evidence that courts and law enforcement are accustomed to managing. There are several reasons to support this view. Firstly, digital evidence relies on information and communication technology (ICT). Reflecting on the past 15-20 years, we have witnessed remarkable advances in ICT and its widespread integration into daily life.[15]

Every technological improvement means a little bit of dissimilar electronic evidence. Gradually but confidently, electronic evidence has progressed bit by bit, and today the

[13] *Ibid.*
[14] *Ibid.*
[15] Goran Oparnica, "Digital Evidence and Digital Forensic Education" 13 *Digital Evidence & Elec. Signature L. Rev.* 143 (2016).

difficulties are completely diverse from the 1990s. Unlike traditional evidence (fingerprints, DNA, spirals on the bullet), the nature of digital evidence is repetitively moving, and every new kind of an operating system brings slightly dissimilar forms of digital evidence.[16] The subsequent opinion is the fact that not all digital evidence is the same. The family of digital evidence is extremely vast. The digital forensics of mobile telephones needs a different approach than digital forensics of computers or networks or the Internet. Even if we emphasis only on mobile telephone forensics, every operating system necessitates dissimilar approaches."[17]

A trial involving digital evidence differs in two key ways from most other trials. First, legal questions concerning the admissibility of digital evidence frequently emerge. Second, the prosecutor's presentation of digital evidence may involve complex terms, concepts, and issues that the judge might not be familiar with. Therefore, the opening statement should aim to introduce the judge to the relevant terminology and types of digital evidence that will be presented. Careful planning of the case presentation and the use of digital evidence throughout the trial is crucial for a successful outcome.[18]

A crucial decision in cases involving complex technology and extensive digital evidence is whether to use an expert witness—someone with specialized training, knowledge, or expertise. If the witness is to provide an opinion, they must be recognized as an expert. However, in some instances, a witness may address complex issues without needing to qualify as an expert, provided they do not offer an opinion. Judges may also have differing standards regarding whether technical witnesses who do not provide opinions must be qualified as experts. In many cases involving digital evidence, either the on-scene investigator or an examiner can testify about how the evidence was discovered. Regardless of the advanced techniques and methods used, the primary concern during the trial is whether the evidence was present on the suspect's computer, not the specifics of how it was found. Thus, in these situations, the examiner serves as a fact witness.[19]

[16] *Ibid.*
[17] *Ibid.*
[18] *Digital Evidence in the Courtroom: Guide for Law Enforcement and Prosecutors*, Washington, DC, U.S. Dept. of Justice, Office of Justice Programs, National Institute of Justice, (2007).
[19] *Supra* note 15.

V.

Section 65-B Admissibility of Electronic Records- IEA, 1872 as Best Evidence Rule

As stated earlier, the production of a certificate is mandatory in the absence of primary evidence which can be understood from Sec. 65-B (4) of the IEA, 1872. For better understanding the relevant sub-clause of the above section is reproduced here:

> "In any proceedings where it is desired to give a statement in evidence by virtue of this section, a certificate doing any of the following things, that is to say-
> (a) identifying the electronic record containing the statement and describing the manner in which it was produced;
> (b) giving such particulars of any device involved in the production of that electronic record as may be appropriate for the purpose of showing that the electronic record was produced by a computer;
> (c) dealing with any of the matters to which the conditions mentioned in sub-section (2) relate, and purporting to be signed by a person occupying a responsible official position in relation to the operation of the relevant device or the management of the relevant activities (whichever is appropriate) shall be evidence of any matter stated in the certificate; and for the purpose of this sub-section it shall be sufficient for a matter to be stated to the best of the knowledge and belief of the person stating it."[20]

The provision indicates that an individual holding a responsible official position must identify the electronic record and provide specific details about any device used in its creation. Moreover, the certificate has to be signed by the concerned person stating that it is true and correct to the best of his knowledge. Once the formalities mentioned in this section are complied with then relevant electronic evidence along with a certificate should be produced before the court for further course of action. The court should ensure that the certificate produced is in accordance with Sec. 65-B (4) of the IEA, 1872.

The best evidence rule requires a party to produce the best possible evidence to prove his case. It also means that the evidence a party seeks to produce shall not be admissible if the evidence he seeks to produce indicates there is better evidence that can be produced unless a clear explanation of lack of better evidence is submitted.[21] In India, Sec. 65-B in the IEA, 1872 is a good example to explain this rule. Sec. 65-B was introduced by the amendments to the IT Act, 2000. According to Sec. 65-B, electronic documents can serve as adequate proof of what the original could legally establish, even without presenting the original, provided that the computer printout relates to a time when the computer was regularly used for storing or processing information as part of routine business by an individual with lawful control

[20] The Indian Evidence Act, 1872 (Act 1 of 1872), s.65-B.
[21] *Omychund* v. *Barker* (1780) 1 Atk, 21, 49; 26 ER 15, 33.

over it. During this relevant period, the computer must have functioned properly, or if it malfunctioned, such issues must not have impacted the electronic record in any way.[22] To present the best possible evidence, it needs to be collected, preserved, and retrieved in such a manner that it retains its authenticity and remains untampered.

VI.

E-Discovery of Electronic Documents

E-Discovery means the electronic evidence retrieved and presented during the discovery process in any legal proceeding. It involves collecting, analysing and producing electronic information including e-mails, and spreadsheets in compliance with the discovery rules of a legal system. E-discovery preserves the legitimacy of an electronic record. During the discovery process apart from the emails and other electronic record such as pictures, password protected files, formatted hard disks, the deleted and encrypted files, steganographic information are also recovered from backup files. Failure to maintain logs is a major hurdle in effective enforcement of cyber laws. After the passage of the IT (amendment) Act, 2008 in India, obligation to maintain logs is a statutory obligation for internet service providers and corporate entities that collect, process or handle sensitive personal information during their commercial activities.[23]

The discoverability of electronically stored documents is not in question. Courts have adopted a broad interpretation of what constitutes a document, and electronically stored information has long been included within this definition. In *Rowe Entertainment v. The William Morris Agency*, Judge Robert P. Patterson Jr. emphasized that, under Rules 26(b) and 34 of the Federal Rules of Civil Procedure, computer-stored information is subject to discovery in the same manner as tangible, written materials.[24]

The Practice Direction to the UK Civil Procedure Rule Part 31, which took effect in October 2005, explicitly includes emails, word processor documents, and databases within the definition of documents. Additionally, metadata and even deleted documents fall under this definition. It is important to note that, regarding the legal obligation to disclose documents,

[22] *Sri. P. Padmanabh S/O Papanna* v. *Syndicate Bank Limited,* AIR 2008 Knat 42,[2208 (1) Kar LJ 153(Electronic evidence of ATM transactions in issue.)
[23] Karnika Seth, *Computers, Internet and New Technology Laws*, 454 (Lexis Nexis, Haryana, 2nd edn., 2016).
[24] SDNY 2002 US Dist Lexis 8308 (2002), at p. 11.

the documents themselves should not be confused with the storage medium in which they reside. In "*Sony Music Entertainment (Australia) Limited* v. *University of Tasmania*,"[25] the Federal Court of Australia opined that:

> "the Court has power to order discovery of a CD ROM, tapes or the other electronic storage devices. While issues relating to accessibility of storage media will be considered below, it suffices for the moment to point out that it is not the storage device or medium that is discoverable but the documents stored within. Hence, an optical DVD disc may contain up to five gigabytes' worth of documents but not all are discoverable; similarly with backup tapes, hard disk drives whether on personal computers or accessible on the network. The adage that the obligation to discover should not be used as an excuse to empty out the opposing party's filing cabinet holds true for electronically stored documents: discovery should not be an excuse for asking the opposing party to hand over his entire hard drive."[26]

In India, there are currently no specific provisions or legislation addressing the protection of e-discovery, privacy rights, and related laws. The legal framework for e-discovery is still developing, and navigating these challenges remains difficult for many in India as the field evolves toward a more established and effective structure.

VII.

Judicial Trends on Admissibility of Digital Evidence: Indian Perspective

The Hon'ble Supreme Court has extensively interpreted the scope and significance of Section 65-B of the IEA, 1872, through various judicial rulings. The question of providing a certificate under Sec. 65-B (4) has been addressed by the Supreme Court on multiple occasions. Some of the landmark cases related to this issue are as follows:

(i) *Arjun Panditrao Khotkar* v. *Kailash Kushanrao Gorantyal* [27]

The Supreme Court clarified that a certificate is not required if the 'original document' is presented as primary evidence. This can be accomplished by the owner of a laptop, tablet, or mobile phone, who can testify in court that they own and/or operate the device containing the original information. However, in cases where the computer is part of a larger computer system or network and cannot be physically brought to court, the only way to provide the information from the electronic record is to comply with Sec. 65-B (1) and produce the necessary certificate under Sec. 65-B (4) of the Act.[28] Additionally, the 3 judge bench of the Supreme Court resolved the apparent inconsistency arising from its conflicting rulings in

[25] *Ibid.*
[26] Yeong Zee Kin, "Recent Developments in Electronic Discovery: Discovering Electronic Documents and Discovering Documents Electronically" 19 SACLJ 101 (2007).
[27] 2020 SCC 571.
[28] *Arjun Panditrao Khotkar* v. *Kailash Kushanrao Gorantyal* 2020 SCC 571, para. 32 of the judgment.

"***Anvar P.V. v. P.K. Basheer & Ors."***[29] and "***Shafhi Mohammad v. State of Himachal Pradesh***."[30] In *Anvar P.V.*, the Court had affirmed that certification under Sec. 65-B is mandatory. However, *Shafhi Mohammad* created uncertainty by suggesting that this requirement was merely procedural and could be waived in the interest of justice.

(ii) *Shafhi Mohammad* v. *State of Himachal Pradesh*[31]

The Hon'ble Court has considered the use of videography at crime scenes, noting that such recordings could significantly aid the investigation process. The Court highlighted the value of audio and video technology as effective tools for collecting firsthand information and crucial evidence. It was observed in earlier hearings that while such evidence should be approached with caution, its admissibility is contingent upon the court's safeguards to ensure authenticity. Electronic evidence is deemed admissible, provided it meets stringent standards for proof of authenticity and accuracy, as new technologies are prone to tampering. Consequently, the primary issue revolved around the interpretation of Sec. 65-B (4) of the IEA, 1872, concerning the admissibility of electronic evidence.[32]

The legal position on the admissibility of electronic evidence is that a party who does not possess the device from which the document originates cannot be forced to produce a certificate under Sec. 65B of the IEA, 1872. Since this certificate is a procedural requirement, the Court may choose to relax this requirement if doing so aligns with the interests of justice.[33]

(iii) *Anvar P.V.* v. *P.K. Basheer & Ors*.[34]

The Supreme Court's three-judge bench ruled that Sec. 65-B of the Indian Evidence Act is self-contained and requires a certificate for the admissibility of electronic records. Without this certificate, secondary evidence from CDs, VCDs, chips, or similar media is inadmissible.

In **"Tomaso Bruno & Anr. v. State of Uttar Pradesh,"** the Supreme Court initially held that electronic records could be admitted without a Sec. 65-B (4) certificate, citing **"State v. Navjot Sandhu,"** which had been overruled by **"Anvar P.V."** This approach ignored Section 65-B's role as a comprehensive code. The Supreme Court has since clarified that a Sec. 65-B (4) certificate is essential for admissibility. The Court has overruled "Shafhi Mohammad" and "Tomaso Bruno," declaring the latter's judgment to be per incuriam.

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[29] 2014 10 SCC 473.
[30] (2018) 2 SCC 801.
[31] *Ibid.*
[32] *Available at*, https://cyberblogindia.in/shafhi-mohammad-v-state-of-himachal pradesh (last visited on April 13, 2021).
[33] *Ibid.*
[34] 2014 10 SCC 473.

VIII.

PRESERVING ELECTRONIC EVIDENCE: THINGS TO DO

Law enforcement must properly preserve digital evidence to ensure its suitability for court. Key considerations include secure storage, sufficient backup copies, and proof of data authenticity. Maintaining the integrity of evidence and a clear chain of custody are crucial. Investigators should document all transfers and changes in custody with a written log. A simple preservation method is to transfer digital information to read-only, non-rewritable CD-ROMs, making two copies. Each disk should be labeled with the operator's name, signature, date, and case number, and treated with the same care as any other evidence, including establishing a chain of custody and secure storage.[35]

Given the time lag between arrest and prosecution, officers must recognize that data files stored on specific equipment might require proprietary software for recovery and interpretation. Before presenting evidence in court, there is a risk that the detector or sensor used to collect the evidence could be replaced with a newer model or one from a different manufacturer. Investigators should keep copies of the necessary proprietary software, or convert data files into a universal format, or transfer the results into hard copy format to preserve them as evidence. Without maintaining the proprietary software, there is a risk that archived data files may become inaccessible. As a best practice, digital evidence should be stored in its original format as well as in a non-proprietary format to ensure its continued accessibility.[36] Electronically stored information creates many challenges in litigation. Over the past several years, litigants and their counsel have been forced to reconsider and, to some extent, reinvent the discovery process. Effectively obtaining relevant electronic evidence requires counsel to have a good fundamental understanding of the various phases of e-discovery: preservation; identification; collection; processing; review and production. Effective litigators have risen to the challenge, adopting constructive methods of preserving and obtaining relevant electronic data.[37]

A. Make Image Copies:

Deleted files and residual data are often recoverable from hard drives because deletion does not fully erase the data; it merely marks the space as available for new information. The file's actual content remains on the disk until it is overwritten or erased using specialized software. This is why files that seem erased can still be retrieved. Residual data includes deleted files,

[35] Stuart Cameron, "Digital Evidence" 80 FBI L. Enforcement Bull. 14 (2011).
[36] *Ibid.*
[37] Susan Wortzman & Susan Nickle, "Obtaining Relevant Electronic Evidence" 36 ADVOC. Q. 226 (2009).

file fragments, and other remaining information on the disk. To capture this data, an image copy of the drive should be made, as it duplicates the disk sector-by-sector. In contrast, a file-by-file copy will not capture residual data.[38]

B. Write-Protect and Virus Check All Media.

To maintain the integrity of received media, first ensure it is write-protected and virus-checked. Write-protecting prevents data from being added or altered. For floppy diskettes, this can be done by adjusting a tab on the casing. For CDs, use software to enable write protection if necessary. Secondly, perform virus checking with up-to-date software to prevent alterations. If a virus is detected, document all related information and inform the provider without attempting to clean the media yourself, as this could alter the evidence.[39]

C. Preserve the Chain of Custody

A chain of custody is vital for authenticating electronic evidence, as digital data can be easily altered. To maintain the chain of custody, you must demonstrate: (1) no information has been added or altered, (2) a comprehensive copy was made, (3) a reliable copying process was used, and (4) all media were protected. Write-protecting and virus checking the media help ensure no alterations, while creating image copies is essential for verifying that a comprehensive copy was made.[40]

D. Collect Backup Tapes and Removable Media

Routine backups, created to safeguard data in case of a disaster, can be a valuable source of evidence, especially if the data is no longer available on active drives. This information is often stored on high-capacity media but can be found on various types. Backup tapes usually contain all of an organization’s data, including emails. Common practice involves making full backups weekly, with the last backup of the month retained as a monthly backup. Weekly backups are typically rotated, while monthly backups may be kept for six months to several years. It's important to understand the procedures for creating these tapes, including the hardware and software used. Also, consider 'ad-hoc' backups on CDs and other removable media, as backup CDs might be found in unexpected places, such as witnesses' desks.[41]

E. Hire an Expert

An expert possesses the tools and expertise necessary to search for data relevant to your case. They can help refine the discovery process, maximize the recovery of data, and provide

[38] *Ibid.*
[39] *Supra* note 37.
[40] *Ibid.*
[41] *Supra* note 37.

resources for copying and examining data. The expert is also skilled in performing forensic analysis, recovering residual and hidden data, and maintaining the chain of custody to ensure the evidence's integrity. Additionally, they can testify to the authenticity and accuracy of the evidence.[42]

IX.
Conclusion

The author concludes that presenting digital evidence in court is more complex than presenting physical evidence, requiring specific knowledge and skills for proper preservation and presentation. Digital evidence can be admitted if it is proven not to be tampered with. While primary evidence should be presented for admissibility, secondary evidence can be introduced with a certificate under Sec. 65-B (4) of the IEA, 1872, if the primary evidence cannot be produced, as demonstrated in *Arjun Panditrao Khotkar v. Kailash Kushanrao Gorantyal*. The author also highlights the Supreme Court's extensive interpretation of Section 65-B, which adds valuable insight into the legal handling of digital evidence.

[42] *Ibid.*

ILLEGAL MINING ACTIVITIES AS A BARRIER IN ATTAINMENT OF SUSTAINABLE DEVELOPMENT GOALS WITH SPECIAL REFERENCE TO HIMACHAL PRADESH

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Abstract

Himachal Pradesh is known for its rich natural resources such as forests, rivers, and minerals. The state is also known for its mining activities, which have been crucial to the expansion and improvement of the state's economy. However, mining activities also raise concerns about the environment and the well-being of local communities. To address these concerns, the Himachal Pradesh government has taken measures to ensure that mining operations are conducted responsibly and in a way that the United Nations' Sustainable Development Goals (SDGs). The Himachal Pradesh government has also taken measures to ensure that legal mining activities do not harm the environment and local communities. The government has established regulations to prevent deforestation and soil erosion caused by mining activities. Additionally, the government has provided training and education to miners on sustainable mining practices, such as reforestation and soil conservation, to help reduce the environmental effects of mining.

Moreover, the state government has also encouraged the development of new sustainable mining technologies to optimize operations and reduce environmental impacts, contributing to the advancement of the mining industry. Therefore, mining activities in Himachal Pradesh have contributed significantly to the state's development, while also aligning with the United Nations' Sustainable Development Goals.

In this research article the authors deal with the factors for illegal mining activities and issues in achieving sustainable development goals, and the role of Himachal Pradesh Government, NGT and Central Empowered Committee in preventing illegal mining practices in Himachal Pradesh.

Keywords: Mining, Sustainable Development Goals, Environment, Himachal Pradesh.

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I.

Introductory Remark

"The first Rule of Sustainability is to align with natural forces, or at least not to try to defy them."

-Paul Hawken

Himachal Pradesh is rich in natural resources, including minerals, which have long been exploited for economic gain. Unfortunately, illegal mining has led to environmental degradation and social issues. Illegal mining activities in Himachal Pradesh have been a significant problem for several decades.[1]

Mining activities have significant impacts on the ***Sustainable Development Goals*** (SDGs), both positive and negative. On the positive side, the mining industry contributes to jobs and economic growth, which is aligned with the SDGs. Furthermore, some mining activities are necessary for the production of goods that are essential for modern life, such as smartphones and electric vehicles, which support ***SDG 12*** (Responsible Consumption and Production) and ***SDG 7*** (Affordable and Clean Energy). However, local communities and the environment may suffer as a result of mining operations. Mining can lead to deforestation, land degradation, water pollution, and the displacement of local populations, which can impede progress towards goals i.e., ***SDG 13*** (Climate Action), ***SDG 14*** (Life Below Water), and ***SDG 15*** (Life On Land).[2]

Therefore, it is vital for mining companies to operate sustainably, taking into account the potential impacts on the environment and communities. This can include sustainable water and land management practices, safe and responsible disposal of waste, and the minimization of greenhouse gas emissions. Mining companies can also work with local communities to identify and meet their needs and minimize negative impacts on their lives. By doing so, mining activities can support progress towards the SDGs and contribute to sustainable development.

The United Nations (UN) plays a vital role in preventing illegal mining and promoting sustainability around the world. The UN promotes the use of sustainable mining practices and works to prevent the illegal extraction of minerals. The UN encourages countries to adopt policies that promote sustainable mining practices, such as environmental regulations and social responsibility programs. The UN also provides technical assistance and

[1] R.K. Tiwary and B.B. Dhar, "Environmental Pollution From Coal Mining Activities In Damodar River" 3:6 *IRJES* 81-87 (2014).

[2] Ahanger Faroz Ahmad, Sharma Harendra K., "Impact of Mining Activities on Various Environmental Attributes with Specific Reference to Health Impacts in Shatabdipuram, Gwalior, India" 13 *MWE* 1-10 (1994).

training to mining companies and local communities to help them implement sustainable practices. Therefore, the UN promotes international cooperation between countries to combat illegal mining, eliminate the trade of conflict minerals, and address other related issues such as human rights violations and environmental degradation. The UN is committed to helping countries manage their natural resources in a sustainable way and guarantee that mining operations are carried out in an ethical and responsible way.

The Indian legislative framework for illegal mining and promoting sustainable development goals consists of a range of laws, policies, and regulatory measures at both the central and state levels. The National Green Tribunal (NGT) is a specialized forum dealing with environmental disputes and enforcing environmental laws in India. It has the power to impose penalties and fines for violations of environmental laws, including those related to illegal mining activities. The Indian government has taken steps to combat illegal mining through enforcement actions and legislation, such as the ***Mines and Minerals (Development and Regulation) Act, 1957***. However, illegal mining continues to be a problem in India, and efforts to prevent it must be sustained to address its harmful effects on communities and the environment.

II.

Illegal Mining Activities in Himachal Pradesh and the Goal of Sustainability

Himachal Pradesh is a state known for its beautiful mountainous region and rich biodiversity. However, it is also home to various mining activities, including limestone mining, quartz mining, and iron ore mining. While mining plays a significant role in the state's economy, but both the local inhabitants and the ecosystem may suffer as a result of mining activities. Illegal mining refers to mining activities that are carried out without the required licenses and permits, often in protected areas or without following due process. These activities can include coal, sand, and stone mining, among others.[3]

One of the main problems with illegal mining in Himachal Pradesh is that it often leads to environmental damage.[4] The primary concerns regarding mining activities in Himachal Pradesh is their impact on the region's water resources. Because heavy metals and hazardous compounds are released into the environment during mining operations, surface and groundwater sources are frequently contaminated. This can have adverse effects on both

[3] E.A. S. Sarma, "Lack of Clarity and Vision in New Mines and Minerals Act" 50:15 *EPW* 16-19 (2015).
[4] M.K. Ghose and R. Majee, "Air Pollution caused by Opencast Mining and its Abatement Measures in India" 63:2 *JEM* 193-202 (2001).

human health and wildlife. Moreover, mining activities can also have a significant impact on the local ecology and biodiversity. Mining sites often lead to the destruction of forested areas, loss of habitat for wildlife, and soil erosion. These activities can also result in air pollution due to blasting activities and transportation of the extracted minerals.

Sustainability refers to the ability of mining activities to meet the current needs while ensuring that the resources are preserved for future generations. To ensure the sustainability of mining activities in Himachal Pradesh, it is crucial to adopt environmentally conscious mining practices. Companies must adhere to the regulations set up by the government and take necessary steps to minimize the impact on the environment. Adopting green mining techniques, which try to lessen the impact of mining operations on the environment, is one method to ensure sustainability. This includes using renewable energy sources, reducing waste generation, and reclamation of mined sites. Additionally, companies must engage with the local communities and ensure that their social and economic needs are not compromised. Therefore, mining activities in Himachal Pradesh can have adverse impacts on the environment and the local communities. However, by adopting green mining practices and engaging with local communities, it is possible to ensure that mining activities remain sustainable and contribute to the state's economy while preserving the natural resources for future generations.

III.
Commitment for Sustainable Development Goals and Mining Activities in Himachal Pradesh

The achievement of Sustainable Development Goals requires a coordinated effort across all sectors, including the mining industry in Himachal Pradesh.[5] Mining activities can have significant adverse effects on the environment and communities. However, mining corporations may help attain the SDGs by implementing sustainable practices. Indian mining businesses may take a number of actions to meet the SDGs, including:[6]

1. Adopting responsible mining practices that ensure the protection of biodiversity, availability of water, and reduction of greenhouse gas emissions.
2. Implementing sustainable land use management practices that prevent soil erosion and land degradation.

[5] N. R. Krishnan, *A Green Economy: India's Sustainable Development* 112 (Notion Press Media Pvt Ltd., Chennai, 2022).
[6]Justyna Woźniak and Justyna Woźniak et.al., "Declaration of the Sustainable Development Goals of Mining Companies and the Effect of Their Activities in Selected Areas" 14:24 *Sustainability* 16422 (2022).

3. Providing employment and income opportunities for the local communities and supporting their development, which will align with SDG 8 promoting decent work and economic growth.
4. Collaborating with local communities, indigenous peoples, and stakeholders to promote sustainable development.
5. Increasing transparency, accountability, and good governance by following the required legal procedures to obtain mining permits and licenses and participating in development efforts enhancing SDG 16.
6. Prioritizing rehabilitation and restoration of degraded land, water resources, and ecosystems,it is in line with SDGs 13 (action on climate change), 14 (life below water), and 15 (life on land).

Therefore, sustainable development of mining activities in India requires a commitment from mining companies to adopt environmentally responsible practices, engage with local communities and promote economic development, followed by transparency, responsible governance and accountability. Mining businesses may significantly contribute to the SDGs' attainment by doing this, which will in turn lift more people out of poverty and create a healthier, safer, and more equitable future for all.

IV.

Reasons and Issues in Achieving Sustainable Mining Practices in Himachal Pradesh

Although sustainable mining practices in India have been addressed over the years, there are still obstacles in the way of the mining industry adopting sustainable practices. The following are a few problems and challenges that India has in implementing sustainable mining practices:[7]

1. *Weak Implementation of Laws and Regulations:* Despite the presence of legal frameworks and policies, enforcement of the laws and regulations in the mining sector remain to be problematic.
2. *Lack of Identification and Recognition of the Rights of Indigenous and Marginalized Communities:* The mining industry often dislocates indigenous people and marginalized communities as land and resources are used without sufficient consultation, compensation, or alternatives.

[7] Peter P. Rogers, Kazi F. Jalal et.al., *An Introduction to Sustainable Development* 42-79 (Routledge, 2008).

3. *Lack of Access to Finance and Technology:* Small-scale mining operators often encounter difficulties in accessing finance and technology used to comply with environmental, health, and safety regulations.
4. *Insufficient Environmental Management:* Inadequate environmental management practices and limited capacity among small-scale mining companies to implement mitigation measures are some of the reasons for environmental degradation resulting from mining activities in India.
5. *Conflict with Water Resource Management:* Mining activities consume and pollute significant amounts of water resources, this may have an impact on other users' access to and quality of water, such as comm unities and agriculture.
6. *Weak Social Contract:* The mining industry in India lacks consensus among stakeholders, including workers, communities and government officials, limiting broad-based support for sustainable mining practices.
7. However, achieving sustainable mining practices in India is unlikely to happen in isolation. The mining sector requires cooperation between government, civil society and industry stakeholders, and implementation of sustainable practices, laws, regulations, and policies. Such measures will promote responsible mining practices that take into account environmental, social, and economic impacts of mining activities.

V.

Laws and Policies in India to Prevent Illegal Mining and Promote Sustainability

In India, there are several laws and policies in place to prevent illegal mining activities and promote sustainability,[8] such as:

1. ***Indian Forest Act, 1927:*** The resources found in woods are to be preserved and protected thanks to this Act. It forbids using forest land for uses other than forestry without permission.
2. ***The Mines and Minerals (Development and Regulation) Act, 1957:*** This Act regulates and grants licenses for the exploration, development, and mining of minerals in India. It provides for the imposition of penalties and imprisonment for illegal mining activities.[9]

[8] Pradeep Kumar Jain, "Legislative Reforms and Challenges to Provide an Impetus to Mineral Exploration in India" 98 *JGSI* 1173-1177 (2022).
[9] *Supra* note 3.

3. ***The Forest (Conservation) Act, 1980:*** This act aims at the conservation of forests and wildlife in India and limits the use of forest land for uses other than forests, such as mining
4. ***National Mineral Policy, 2019:*** This policy aims to ensure sustainable mining and mineral development in the country while protecting the environment and the interests of local communities. It includes provisions for the protection of tribal and forest areas.[10]
5. ***Wildlife Protection Act, 1972:*** This Act aims to protect wildlife and their habitats from exploitation and harassment due to human activities such as mining. It prohibits the hunting, capturing, or killing of endangered species.[11]
6. ***Indian Forest Act, 1927***: The resources found in woods are to be preserved and protected thanks to this Act. It prohibits the use of forest land for non-forestry purposes without prior approval.
7. ***Environmental Impact Assessment (EIA) Notification, 2006:*** Under this notification, projects such as mining require prior environmental clearance from the government, which includes an assessment of the potential environmental impacts and measures to mitigate them.[12].
8. ***The National Mineral Policy, 2008:*** This policy lays down the guidelines for sustainable development of the mining sector and aims at ensuring the socio-economic development of the local communities while ensuring the conservation and protection of the environment.
9. Additionally, to encourage sustainable growth in the nation, the Indian government has introduced a number of programs, including the National Action Plan on Climate Change and the Swachh Bharat Abhiyan (Clean India Mission).

VI.

Role of Himachal Pradesh Government in Preventing Illegal mining and Promoting Sustainability

The state of Himachal Pradesh in India has taken several measures to prevent illegal mining activities and promote sustainable development. To prevent illegal mining, the government

[10] S. Vijay Kumar, "National Mineral Policy 2019: a Remedy as Bad as the Disease?" 3:1 *EESNSEE* 111-114 (2020).
[11] MK Ramesh, "The Wildlife Protection Act, 1972 of India: An Agenda for Reform" 4 *Asia Pac. J. Envtl. L.* 271 (1999).
[12] M. Z. M. Nomani, Jalal Allail (et.al.), "Environment Impact Assessment Draft Notification 2020: An Eco-Legal Assessment" 25:4 *ARSCB* 101 (2021).

of Himachal Pradesh has implemented a strict regulatory framework and established a state-level mining task force to monitor and prevent illegal mining activities.[13] The government has also increased the penalties for illegal mining and made the application process for mining licenses more stringent. In terms of promoting sustainable development in mining, the government of Himachal Pradesh has taken various steps such as:[14]

a. Encouraging the use of green mining technology and sustainable mining practices;
b. Developing programs for the rehabilitation of abandoned and environmentally degraded mining areas;
c. Creating awareness among stakeholders about sustainable mining practices; and
d. Developing a sustainable mining policy for the state.

The government has also collaborated with academic institutions, non-governmental organizations and civil society to strengthen its efforts towards promoting sustainable mining practices in the state.[15] Therefore, the Himachal Pradesh government's initiatives have contributed towards the promotion of sustainable mining practices and in preventing illegal mining activities in the state.

VII.
Role of Non-Governmental Organizations

Non-Governmental Organizations (NGOs) play an important role in preventing illegal mining in Himachal Pradesh. NGOs collaborate closely with the local population to raise awareness of the harm that illicit mining operations cause to the environment, human health, and socioeconomic facets of the community.[16] They also work to build the capacity of communities to monitor and report illegal mining activities to the authorities.

NGOs also collaborate with the government in providing technical expertise and support for developing sustainable mining policies for the state. They provide assistance in the implementation of such policies and also act as a watchdog to guarantee that the state's mining operations are conducted sustainably. Moreover, NGOs also conduct research and document cases of environmental degradation and human rights abuses related to illegal

[13] Himachal sets up task force to curb illegal mining, available at: https://www.tribuneindia.com/news/himachal/himachal-sets-up-task-force-to-curb-illegal-mining-503832 (last visited on 30th May, 2023).
[14] Himachal Pradesh Government, *Report on Environmental and Social Systems Assessment, Himachal Pradesh Public Financial Management Capacity Building Program*, 42-43 (2023).
[15] Rajesh Kumar, Ankush Sharma et.al. (eds.), *Frontiers in Science and Technology in India: An Overview* 17-24 (2021).
[16] Arpita Bisht & Julien-Francois Gerber, "Ecological Distribution Conflicts (EDCs) over Mineral Extraction in India: An Overview" 4:3 *EIS* 548-563 (2017).

mining activities in Himachal Pradesh. This helps in highlighting the detrimental effects of illegal mining and creating awareness among key stakeholders such as the government, mining industry and local communities to take necessary steps towards preventing illegal mining activities. Overall, NGOs in Himachal Pradesh are playing a crucial role in preventing illegal mining activities and promoting sustainable mining practices in the state.[17]

VIII.

Role of Higher Judiciary in Preventing Illegal Mining Practices

The Hon'ble Supreme Court has taken a strong stance against illegal mining in the state. The court has passed various orders over the years to curb the menace of illegal mining and protect the environment. Therefore, the judicial approach on illegal mining in Himachal Pradesh has been proactive and the court has been instrumental in protecting the environment and curbing illegal activities. In the case of *State of Himachal Pradesh* v. *Ganeshi Lal,*[18] the state administration of Himachal Pradesh was instructed to cease all unlawful mining operations by the Supreme Court, which also banned mining in the region. In this case, Ganeshi Lal was found guilty of illegally mining quartzite in the Nalagarh area of the state and was sentenced to three months' imprisonment. In *Rameshwar Gaur* v. *State of Himachal Pradesh*,[19] the Solan District Court sentenced 11 people, including four government officials, to up to four years in jail for their involvement in illegal mining activities in the Arki area of the state. They were found guilty by the court of breaking many laws, such as the Forest Conservation Act of 1980 and the Mines and Minerals (Development and Regulation) Act of 1957.

In *State of Himachal Pradesh v. Shiv Dayal & Ors.*,[20] the Himachal Pradesh High Court ordered the state government to immediately stop all illegal mining activities in the state and to take necessary action against those found guilty. The government was also ordered by the court to establish a committee to oversee mining operations and guarantee that all applicable regulations are strictly followed. In *Deepak Kumar Mahajan* v. *State of Himachal Pradesh*,[21] the High Court of Himachal Pradesh directed the state government to immediately stop all illegal mining activities in the state and to take necessary action against those found guilty. The court also ordered the government to cancel all existing mining leases

[17] Deepika Thakur & G.S. Gill, "Some Geo-Environmental Hazards in Dharamshala area of Himachal Pradesh and their Mitigation" 1:1 *IJAEES* 41-53 (2013).
[18] (1995) 2 SCC 621.
[19] AIR 1986 SC 1907.
[20] (2003) 3 SCC 138.
[21] (2014) 11 SCC 126.

that were obtained illegally or in violation of laws. In *State of Himachal Pradesh* v. *Sunita Thakur*,[22] the Supreme Court ordered the closure of all illegal mining activities in the state and directed the state government to recover damages from those found guilty. In this case, Sunita Thakur was found guilty of illegally operating a stone crusher in Shimla district and was sentenced to one year's imprisonment.

IX.

National Green Tribunal and Maintaining Sustainability in Himachal Pradesh

In India, the National Green Tribunal plays a significant role in stopping illicit mining and promoting sustainable practices in the country. The NGT is a specialized court that deals with environmental disputes and helps to enforce laws related to environmental protection. To prevent illegal mining, the NGT has the power to impose fines, order the closure of illegal mines, and to direct state governments to take action against those involved in illegal mining. The NGT also monitors compliance with environmental regulations by mining companies and can order them to take remedial measures if they violate these regulations.[23]

In terms of promoting sustainable mining practices, the NGT has directed mining companies to prepare and implement mine closure plans in order to ensure that the land is rehabilitated after mining activities have ceased. The NGT also encourages the use of clean technologies in mining, and has ordered mining companies to submit proposals for the use of such technologies in their operations.[24] The following are the some cases that NGT has dealt with relating to illegal mining in India:

In September 2021, the NGT directed the Himachal Pradesh government to shut down all illegal stone crushers operating in the state's Solan district. The tribunal also ordered the suspension of mining activities in the area until proper environmental clearances are obtained.

In *Bhanu Pratap Singh* v. *State of Himachal Pradesh and Others*,[25] the petitioner Bhanu Pratap Singh sought the closure of all illegal mining activities in Himachal Pradesh. The petitioner stated, that illegal mining was leading to severe environmental degradation and causing harm to the local ecology. The NGT passed an order in September 2015, directing the

[22] (2015) 1 SCC 145.
[23] Swapan Kumar Patra and V.V. Krishna, "National Green Tribunal and Environmental Justice in India" 44:04 *Indian Journal of Geo-Marine Sciences* (2015).
[24] Mirza Juned & Mohd Sufiyan Khan, *Environmental Jurisprudence in India* 325 (Book Rivers, Lucknow, 2022).
[25] Application No 634/2015.

state government to stop all illegal mining and quarrying activities, and take necessary steps to restore the damaged ecosystem.

In *Sandeep Singh* v. *State of Himachal Pradesh and Others*,[26] which was a case filed in 2018, the petitioner claimed, that there were illicit mining operations in the Himachal Pradesh area of Chamba. The petitioner claimed that the unlawful mining operations were inflicting irrevocable environmental harm, while the state government was doing nothing about it. The state administration was instructed by the NGT to stop all illicit mining operations in the area right now and to prosecute those responsible with severe consequences.

In *Himachal Pradesh Industrial Development Corporation* v. *State of Himachal Pradesh and Others*,[27] the Himachal Pradesh Industrial Development Corporation alleged, that illegal mining activities were going on in the eco-sensitive zone around Kasauli in Solan district. The state administration was instructed by the NGT to intervene immediately to stop illicit mining operations and repair the ecology that has been harmed. Additionally, the NGT ordered the state government to undertake routine inspections, punish violators with steep penalties, and make sure that no more unlawful mining operations occur in the region.

In the 2020 case of *Vikas Thakur* v. *State of Himachal Pradesh and Others*,[28] the petitioner made allegations about illegal mining activities in the Mandi district of Himachal Pradesh. The petitioner stated, that despite several complaints, the state administration was not doing enough to stop the illicit mining operations. The state administration was instructed by the NGT to stop all illicit mining operations in the area right away and to take the required actions to repair the environment that had been harmed. A committee to oversee the issue and provide periodic updates was also instructed to be formed by the NGT in state government.

X.

Role of Central Empowered Committee in Preventing Illegal Mining Practices

The Supreme Court of India created the Central Empowered Committee (CEC) in 2002. The committee has been given the responsibility to investigate complaints and take action against illegal mining activities that are harming the environment.[29] Here are some of the roles of the Central Empowered Committee in preventing mining activities in India:

[26] Case No. 333/2015.
[27] Original Application No. 09 of 2014.
[28] Original Application No. 113 of 2011.
[29] Leah Temper and Joan Martinez-Alier, "The god of the mountain and Godavarman: Net Present Value, indigenous territorial rights and sacredness in a bauxite mining conflict in India" 96 *Ecological Economics*79-87 (2013).

1. *Investigation:* The CEC is responsible for investigating alleged violations of environmental laws and regulations related to mining activities. The committee recommends actions that need to be taken to stop any such illegal activities.
2. *Monitoring:* The CEC monitors mining activities in various parts of the country to ensure that mining operations are carried out in accordance with the laws and regulations related to environmental protection.
3. *Recommending action:* Based on its investigation, the CEC recommends appropriate action to the court or the government to stop illegal mining activities and enforce environmental laws and regulations.
4. *Advising government:* The CEC provides expert advice to the government on environmental issues related to mining and makes recommendations for better implementation of laws, policies, and regulations related to mining.

The CEC's existence has been a crucial step in guaranteeing the environment's defense against the damaging consequences of mining in India. By monitoring,[30] investigating, and recommending action, the committee has played an essential role in preventing illegal mining activities and enforcing environmental laws and regulations.[31]

XI.
Concluding Remarks

India has several legislative frameworks for controlling illegal mining and promoting sustainable development goals. These laws and policies aim to ensure sustainable mining practices while balancing the needs of development with the conservation of the environment and protection of the local communities. Illegal mining in Himachal Pradesh has been a persistent problem for many years, with significant negative impacts on the environment, local communities, and the economy. Despite efforts by the government to curb these activities, illegal mining continues to thrive due to corruption, weak regulations, and a lack of enforcement.

India has committed itself to the attainment of the SDGs, which includes specific goals related to sustainable mining practices, climate action, as well as conscientious production and consumption. The ubiquity of illicit mining in Himachal Pradesh is another obstacle to India's achievement of the Sustainable Development Goals (SDGs). To tackle this

[30] *Supra* note 5.
[31] Ali Mehdi, "Authority for Protection and Conservation of the Environment: A Judicial Invocation in India" *Contemporary Issues in International Law* 127-137 (2018).

issue, a multi-faceted approach is needed that looks at not only stricter regulations and enforcement but also alternative livelihood options for affected communities and greater public awareness on the importance of sustainable mining practices.[32] However, sustainable mining initiatives that take into account environmental, social, and economic factors can be implemented to promote responsible mining practices that align with SDGs. Overall, addressing illegal mining in India is essential for the attainment of sustainable development goals and the well-being of local communities and the environment.

Corporate social responsibility (CSR) is an approach that has gained significant attention in the corporate world. In the case of illegal mining activities in Himachal Pradesh, CSR can play a crucial role in mitigating the negative impact of mining on the environment and local communities. Companies engaging in mining activities in Himachal Pradesh can undertake CSR activities that focus on promoting sustainable development and environmental conservation. Such activities could include afforestation programs, water conservation initiatives, and community development projects such as building schools and health facilities. In addition, companies can also create awareness among local communities regarding sustainable mining practices, and encourage their active participation in monitoring illegal mining activities. By engaging in responsible CSR activities, companies can demonstrate their commitment towards sustainable mining practices, and build strong relationships with the local communities. This in turn can help reduce social conflicts related to mining activities, and increase the support for sustainable mining practices among all stakeholders. CSR can also complement the efforts of the government and NGOs towards preventing illegal mining activities. Therefore, it is imperative that companies engaged in mining in Himachal Pradesh take up their CSR responsibilities seriously to mitigate the negative impact of mining in the state.

[32] Jeffrey D. Sachs, *The Age of Sustainable Development* 34 (Columbia University Press, 2015).

SOLAR ENERGY TRANSITION IN INDIA: EXAMINING THE VIABILITY, CHALLENGES, AND OPPORTUNITIES

Dr Rajesh Kumar*

Abstract

India, one of the fastest emerging economies, faces a dual challenge. On the one hand, India needs to have access to adequate energy resources, and on the other, it has the challenge of growing with sustainability. Solar energy has emerged as a promising solution to the abovementioned dual challenge in this complex situation. Considering this, the paper covers a comprehensive analysis of the viability, challenges and opportunities of India's solar energy transition. The research paper has examined the key factors that support the financial viability of the successful solar energy transition in India. The paper also analyzes the challenges involved in this transition. Besides this, the paper also examined the opportunities that can be harnessed while bringing the solar energy transition in India. The paper has also made some workable suggestions for a successful transition to solar energy for a sustainable future.

Keywords: Solar Energy Transition; Sustainability; Fossil Fuels; Financial Viability; etc.

I.
Introduction

India's transition to solar energy represents a critical pivot toward sustainable energy sources in a rapidly industrializing nation where energy demand consistently escalates. The theoretical foundation of this transition is anchored in the notion of sustainable development and energy justice, wherein India's commitment to reducing carbon emissions aligns with global environmental agreements such as the Paris Accord. The viability of solar energy in India is bolstered by its geographical advantage, receiving an average of 5,000 trillion kWh of solar energy annually, which theoretically could supply a substantial portion of the country's energy requirements.[1] Besides the viability aspect, the aspect of energy justice

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focuses on ensuring equal access to energy benefits and minimizing burdens. This concept is crucial for India, where many still lack reliable electricity. Solar power offers a way to provide clean energy to underserved communities and reduce the environmental damage caused by coal and other fossil fuels. Sustainable development emphasizes the importance of creating long-lasting environmental and economic stability. Solar energy helps lower carbon emissions, conserve resources, and build a resilient energy infrastructure to support India's growth. Solar power, aligned with the principles of energy equity, offering an opportunity to decentralize power generation, particularly in rural areas that have limited access to conventional grid systems. From a developmental standpoint, this decentralized approach can empower local communities, enhance energy security, and promote economic stability by reducing reliance on imported fuels.[2]

Additionally, energy resources also play a catalytic role in setting the pace for a country's socio-economic development. India being one of the fastest growing emerging economy, is in dire need of access to vast energy resources. The need for energy resources is further being fueled by the factors such rapid urbanization, industrialization and improvement in the life standards of a huge population. Thus, the inevitable growing demand for energy resources is very critical for sustaining the pace of developmental initiatives in powering industries, manufacturing processes, infrastructural projects, etc.

In such a scenario, reliable and affordable energy sources are indispensable for enhancing productivity, driving innovation, and attracting investment. But at the same time, the concerns over the high share of fossil fuel in the overall consumption is also rising. Over the last two decades, India's energy consumption has doubled. The ongoing industrialization and urbanization will further increase the demand for energy. However, the per capita energy is still below the global average, varying across different regions.[3] An overview of India's energy status shows that coal, oil and solid biomass meet over 80% of India's energy demands. In addition to this, natural gas and renewable sources are also gaining traction.[4]

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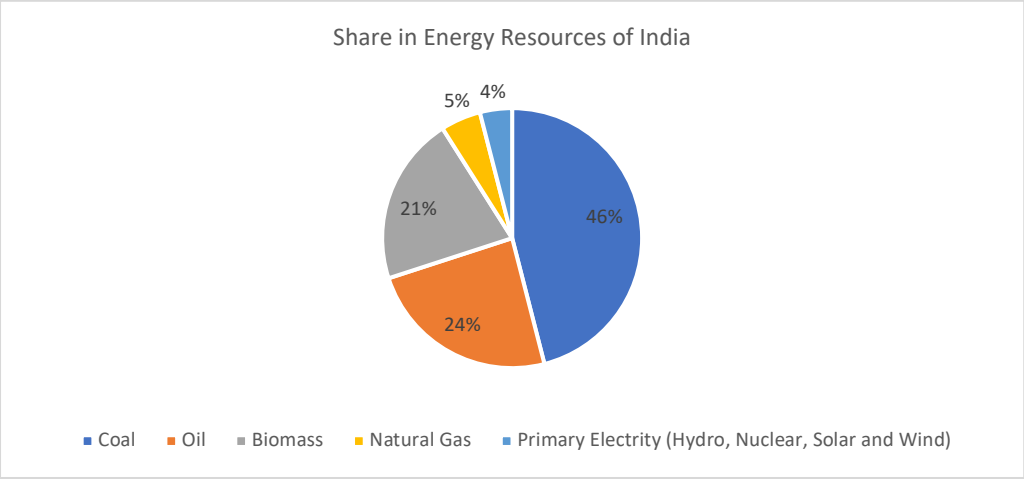
[1] Ministry of New and Renewable Energy, *Solar Overview, available at*: https://mnre.gov.in/solar-overview/#:~:text=NSM%20was%20launched%20on%2011,addressing%20India%27s%20energy%20security%20challenges. (last visited on October 29, 2024).
[2] *Ibid.*
[3] International Energy Agency, *India Energy Outlook 2021: Energy in India Today, available at*: https://www.iea.org/reports/india-energy-outlook-2021/energy-in-india-today (last visited on April 02, 2024).
[4] *Ibid*.



Given the size of consumption, India is the third largest energy-consuming country, and its consumption is going to rise further. Currently, coal accounts for 46% of India's energy mix, but by 2040 it is expected to decline 34%.[5] Further, as of 2022 the other components hold the following share in the energy source: Oil (24%), Biomass (21%), Natural Gas (5%), and primary electricity (including hydro, nuclear, solar, and wind) (4%).[6] It is predicted that India's dependence on the exported fossil fuel is expected to rise significantly (reaching to 90% for oil) by 2040. Considering the strains of imported energy resources on India's economy, the government of India has planned to increase its renewable energy capacity to 450 GW by 2030.[7]

India's energy sector is facing three-fold challenges i.e., availability, affordability, and sustainability. These challenges need to be tackled seriously to sustain the ongoing pace of economic development. While giving impetus to the green sources of energy, the Government of India is working ambitiously to achieve its targets even before its deadlines. For example, India has achieved the 10% of biofuel blending and has also advanced the 20% blending target from the years 2030 to 2025. This blending of ethanol has not only adding savings on the import bill but also a contribution towards the green energy.[8]

India's ambitious approach on the acceleration of non-conventional energy sources is paving way for other developing countries. It has decided to achieve the net zero emissions target by

[5] Zhuldyz Kanapiyanova, Eurasian Research Institute, *India as a Country with Increasing Energy Demand*, *available at*: https://www.eurasian-research.org/publication/india-as-a-country-with-increasing-energy-demand/ (last visited on April 02, 2024).

[6] Enerdata, *India Energy Information*, *available at*: https://www.enerdata.net/estore/energy-market/india/#:~:text=Coal%20is%20the%20country%27s%20top,%2C%20and%20wind)%204%25. (last visited on April 01, 2024).

[7] *Supra* note 5.

[8] Hardeep S. Puri, *26th Energy Technology Meet, PIB, available at*: https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1966227 (last visited on April 03, 2024).

2070. Further, to fight climate change, India has decided to achieve the generation of 50% of its electricity from renewable sources by 2030.[9] This shows the departure from the carbon-intensive development model of the past and presents a blueprint for other similarly situated economies. India, through its ambitious plan, has further decided to install 500GW of renewable energy capacity, reduce the carbon emission intensity by 45%, and mitigate a billion tons of CO2. This commitment accelerates the solar and wind energy sector. The plan is being supported by policy measures and subsidies to convert the transition into an opportunity. The initiative has the potential to develop a market of (renewable batteries and green hydrogen production) worth $80 Billion by 2030.[10] Thus, while looking at this ambitious plan, it becomes necessary to evaluate the possibility of a big initiative which requires significant investment, international support, and legal-policy effectiveness.

The above-given statistics present the necessity of India's transition to solar energy. As mentioned above this transition is driven by the need to reduce dependence on fossil fuel and mitigate the environmental impacts of conventional energy sources. Building on this foundation, the upcoming sections of this paper will explore the research methodology, legal-policy framework, financial viability, challenges, opportunities, and the emerging scenario of solar energy transition in India, informed by the insights gained from this comprehensive analysis.

II.
Research Approach

With respect to the methodology, the present research has adopted for a systematic investigation of the viability challenges and opportunities of solar energy transition in India, the research approach can be rooted in a mixed-method design, incorporating both quantitative and qualitative methodologies to provide a comprehensive analysis. The research has employed an exploratory sequential design, starting with a quantitative phase where data on energy consumption patterns, financial models and policy incentives are analyzed. This aspect has covered the statistical analysis of solar energy adoption rates, cost-effectiveness comparisons, and investment patterns using the datasets from government energy reports and international energy agencies. Further, the qualitative analysis follows the qualitative phase to

[9] Fatih Birol and Amitab Kant, *India's Clean Energy Transition is Rapidly Underway, Benefiting the Entire World*, *IEA*, *available at*: https://www.iea.org/commentaries/india-s-clean-energy-transition-is-rapidly-underway-benefiting-the-entire-world (last visited on April 03, 2024).
[10] *Ibid*.

explore the broader socio-political and infrastructural challenges. The analysis also covered non-financial barriers such as land acquisition, public awareness, and grid integration issues. This approach has allowed the identification of critical roadblocks as well as the potential facilitators from both top-down (policy) and bottom-up (society/community) perspectives.

III.
Legal-Policy Framework

Concerning the legal and policy framework for the solar energy transition, it can be observed that India has implemented several legal provisions and policies to promote the transition, driven by its commitment to sustainable development and reducing reliance on fossil fuels. One of the cornerstone legal frameworks is the National Solar Mission (NSM), launched in 2010 as part of the National Action Plan on Climate Change (NAPCC). The mission aims to establish India as a global leader in solar energy by increasing the installed solar power capacity to 100 GW by 2022 and now aims for 300 GW by 2030. Under this policy, the government has introduced several fiscal incentives, such as tax holidays, accelerated depreciation, and feed-in tariffs, aimed at reducing the cost of solar projects and making solar energy competitive with traditional energy sources.[11]

Additionally, the Electricity Act of 2003 plays a vital role by empowering state electricity regulatory commissions (SERCs) to establish renewable purchase obligations (RPOs), which mandate the electricity distribution companies to source a percentage of their energy from renewable sources, including solar energy.[12] Besides the legal frameworks, India has introduced various policy incentives to catalyze solar energy adoption. The Production Linked Incentive (PLI) Scheme for high-efficiency solar PV modules encourages domestic manufacturing of solar equipment by offering incentives based on the production capacity of solar modules. The government also supports solar energy projects through the Viability Gap Funding (VGF) scheme, which provides financial assistance to cover the gap between the cost of solar energy projects and the tariff at which solar power is sold.[13]

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[11] *Supra* note 1.
[12] Lydia Powell and Akhilesh Sati, *Renewable purchase obligations: Unobliging states, ORF,* January 23, 2024, *available at*: https://www.orfonline.org/expert-speak/renewable-purchase-obligations-unobliging-states#:~:text=Background,by%20at%20least%2030%20percent (last visited on October 14, 2024).
[13] Ministry of New and Renewable Energy, *Steps to enhance domestic manufacturing of solar PV cells and modules, PIB*, August 5, 2021, *available at*: https://pib.gov.in/PressReleasePage.aspx?PRID=1742795 (last visited on October 15, 2024).

To expedite the transition to solar energy, the Government of India has recently launched a scheme named "PM Surya Ghar: Muft Bijli Yojna". This scheme aims to provide free electricity to households through rooftop solar installations. The scheme provides a subsidy of up to 40% of installation cost, and it seeks to benefit one crore households and save the government INR 75,000 crore annually in electricity expenses. The program supports the ongoing solar energy transition and is projected to add 30 GW of solar capacity. With this scheme, the households can also generate income by selling surplus power, and the initiative is expected to create approximately 17 Lakh jobs. With a special component namely "Model Solar Village," this scheme promotes solar adoption in rural areas with financial assistance. Overall, this scheme will prove to be a transformative step towards energy sustainability and economic empowerment in India.[14] In addition to these financial measures, the Grid-Connect Solar Rooftop Programme promotes solar adoption in residential and commercial buildings by offering subsidies and easy financing options for rooftop installations. Collectively, these legal and policy frameworks not only advance India's ambitious solar energy targets but also attract investment, boost innovations in solar technology and drive the country towards a cleaner, more sustainable energy future.[15]

IV.
Financial Viability

The solar energy transition comes with a significant cost. The fiscal viability of the measure will determine the success of the transition. The transition faces surmounting challenges in the context of low-income and low-middle-income countries. The transition requires significant fiscal support and long-term strategy. Further, various constraints such as lack of adequate infrastructure, high cost of debt, short-term loan tenures, low competitiveness, and policy risk, etc., deter the investors and consequently increase the cost of produced

[14] Ministry of New and Renewable Energy, *PM Surya Ghar: Muft Bijli Yojana - Redefining Solar Power and Energy Access, PIB*, August 12, 2024, *available at*: https://static.pib.gov.in/WriteReadData/specificdocs/documents/2024/aug/doc2024812373601.pdf (last visited on October 15, 2024).

[15] Ministry of New and Renewable Energy, *Guidelines for PM-Surya Ghar: Muft Bijli Yojana,* June 06, 2024, *available at*: https://cdnbbsr.s3waas.gov.in/s3716e1b8c6cd17b771da77391355749f3/uploads/2024/07/2024070217680354 84.pdf, (last visited on October 15, 2024).

electricity.[16] Furthermore, some estimates say that for a developing country to make the transition successful, investing $1.5 to 2.0 trillion annually over 30 years is necessary.[17] However, these figures look significant, as they are manageable given the global GDP of $104 trillion in 2022, with energy having a significant share in it. For such a big transition to take place, the current funding levels from sources like World Bank fall short of these requirements. It is argued that, India would need to invest $600 billion annually in its energy transition alone, which presents a big challenge given its existing external debt. Innovative funding schemes, grants, regulatory mechanisms, policy measures, subsidies, and lucrative investment mechanisms are necessary to address this challenge.[18]

However, the above arguments and data present a tough situation for the solar energy transition, but the outcome of the recent years shows a positive picture. For instance, in the fiscal year 2021-22, the transition reached a milestone with a record addition to the renewable energy capacity. This includes the substantial addition of 13.9GW in a single year. On the contrary, in the same period the coal capacity addition has declined. Moreover, the government's imposition of duties on imported solar modules aimed to protect the domestic manufacturers, thereby setting the pace of transition.[19] This has further spurred the investment in domestic manufacturing. Besides this the schemes like production-linked incentive (PLI) also gave the transition required push through attracting the investment. In the fiscal year 2021-22, the renewable sector has received the investment exceeding $15 billion with a major contribution coming from the green bonds and debt financing. It is predicted that achieving the target of 450GW by 2030 will require an accelerated and average investment of $35-40 billion annually.[20]

The above analysis presents the situation that sustained and affordable financing is the only way to ensure this transition's success. Government support plays an instrumental role in the

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[16] Alok Raj Gupta, *Financing India's Renewable Energy Vision, ORF*, *available at*: https://www.orfonline.org/research/financing-indias-renewable-energy-vision-60516 (last visited on April 04, 2024.

[17] Florence School of Regulation, *Looking at the Costs of the Energy Transition from an Indian Perspective, available at*: https://fsr.eui.eu/looking-at-the-costs-of-the-energy-transition-from-an-indian-perspective/#:~:text=India%27s%20annual%20average%20energy%20transition,2050%2C%20for%20energy%20transition%20alone. (last visited on April 03, 2024).

[18] *Ibid*.

[19] Kashish Shah, "For India's Energy Transition, Financing Will be a Key Challenge", *Economic Time*s, April 25, 2022, *available at*: https://economictimes.indiatimes.com/industry/renewables/for-indias-energy-transition-financing-will-be-a-key-challenge/articleshow/91073021.cms?from=mdr (last visited on April 03, 2024).

[20] *Ibid*.

financing of solar energy transition. Incentive schemes such as accelerated depreciation, electricity generation-based incentives, viability gap funding, etc., can support a smooth transition.[21] Further, key financial institutions like the Indian Renewable Energy Development Agency (IREDA), Power Finance Corporation (PFC), Rural Electrification Corporation Ltd. (REC), National Bank for Agriculture and Rural Development (NABARD), National Clean Energy and Environment Fund (NCEEF), priority sector lending by Reserve Bank of India (RBI) etc., provides loans for the renewable energy projects. Moreover, innovative financing mechanisms, such as green banks, green bonds, infrastructure debt funds, crowdfunding, etc., are emerging to finance the gap. In addition to these, international agencies and banks also provide soft loans for solar energy projects.[22]

To ensure financial viability, it is essential to establish a conducive environment, and through measures like availability of low-cost equipment (solar panels), government incentives and policies, easy access to financing, tariff competitiveness, grid parity in terms of cost, diversified revenue streams, continuous technological innovation, etc., the possibility of transition is becoming a reality. The following paragraphs has evaluated the abovementioned aspects.

Globally, the cost of solar photovoltaic (PV) technology has been advancing at a very fast pace, thereby establishing its competitiveness with conventional energy resources. In the Indian context also, the cost of solar power generation is affected by technological advancement, economic development and investment, and enabling government incentives. All these factors collectively contributed to the viability of solar energy projects, making them more attractive options for both consumers and investors.[23] Further, the government of India has been implementing various policies and incentives to give the required boost to solar energy transition. These policy measures help transition projects through subsidies, tax

[21] Gopal K. Sarangi, "Green Energy Finance in India: Challenges and Solutions" 6-10, ADBI Working Paper, *available at*: https://www.adb.org/sites/default/files/publication/446536/adbi-wp863.pdf (last visited on April 04, 2024).
[22] *Ibid*.
[23] Aarushi Koundal, "What Explains the Steepest Dip in Solar Installation Costs in India?," *The Economic Times*, ETEnergyWorld, September 04, 2023, *available at*: https://energy.economictimes.indiatimes.com/news/renewable/what-explains-the-steepest-dip-in-solar-installation-costs-in-india/103329903 (last visited on April 04, 2024).

exemptions, and favourable feed-in-tariffs.[24] Besides this, access to finance has also played the role of game changer in this transition. The availability of the financial support mechanism for small and medium-sized enterprises (SMEs) and residential consumers has further smoothened the whole process. For example, hassle-free access to finance through Non-Banking Finance Companies (NBFCs), easy loan offers, credit lines, and specially tailored leasing options for solar energy projects have been streamlining the transition.[25]

Another aspect that has made the transition sustainable is the competitiveness of the tariffs. In recent years, the record decline in the solar power tariff rates has made it a competitive contender with respect to conventional sources (i.e., coal and natural gas). The discovery of low-cost tariffs through the competitive bidding conducted by the regulatory bodies (i.e., Solar Energy Corporation of India (SECI) and State Electricity Regulatory Commission) has further strengthened the transition. The declining cost of solar power generation and the existence of a transparent tariff structure have made the sector attractive for domestic as well as international investors.[26]

The grid parity in many parts of India has been achieved. With this achievement, now solar electricity is now at a competitive edge compared to grid electricity. The favourable solar irradiance condition coupled with the low-cost solar PV has helped in achieving grid parity. The grid parity has streamlined and accelerated the transition, as solar energy is not affected by the volatile fuel prices.[27] Solar energy projects are now entering into a new level, where they are not only enhancing their own financial viability but also able to generate multiple revenue streams. For example, the rooftop solar installations can help them benefit from the net metering arrangements and thereby allowing them to offset their electricity bills by exporting the excess generated solar power to the grid. Similarly, solar parks and utility-scale

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[24] MNRE, *Solar Overview, available at*: https://mnre.gov.in/solar-overview/#:~:text=In%20order%20to%20achieve%20the,Connected%20Solar%20Rooftop%20Scheme%20etc. (last visited on April 05, 2024).

[25] *Supra* note 16.

[26] Sudheer Singh, "Solar Power Not Viable at Current Tariff Without Local Supply Chain," *The Economic Times*, ETEnergyWorld, November 02, 2022, *available at*: https://energy.economictimes.indiatimes.com/news/renewable/solar-power-not-viable-at-current-tariff-without-local-supply-chain-prashant-jain-jsw-energy/95253663#:~:text=In%20the%20recent%20past%2C%20many,lower%20tariff%20at%20that%20time (last visited on April 05, 2024).

[27] DownToEarth, "Is Solar Sector Truly Achieving Grid Parity?" *available at*: https://www.downtoearth.org.in/indepth/reducing-price-of-solar-generation-busting-the-myth-56509#:~:text=Subsidised%20grid%20parity%20versus%20unsubsidised,and%2060%20GW%20to%20wind (last visited on April 05, 2024).

projects can also generate revenue through mechanisms such as carbon credits, renewable energy certificates (RECs), and other environmental incentives.[28]

The viability of the transition is further being strengthened by technological innovations such as improvements in panel efficiency, smart grid integration, and solutions to energy storage. Further, innovation in areas like solar tracking systems, balance of components, and inverters has not only reduced the operational cost but has also enhanced the economic viability of solar energy projects. The continued efforts in research and development (R&D) focused on the solar projects' innovativeness, effectiveness and economic aspects.[29] Thus, with the above-discussed aspects, it can be observed that the financial viability of the solar energy transition in India is going to be stronger.

V.
Challenges in Solar Energy Transition

However, the preceding section of the paper has covered the financial viability of the solar energy transition in India. However, the solar power sector faces multifarious challenges on different fronts. In the last two decades, the financial viability of solar power projects (domestic or industrial level) has gained a very high momentum. But still, the initial costs of installing the solar power system, including solar panels, inverters, etc., are prohibitive in nature. The situation of rural areas and economically backward areas is more challenging. The lack of awareness and accessibility of government schemes, loans, subsidies, etc., is causing roadblocks for the transition.[30] Therefore, special focus should be given to decreasing initial costs, and stakeholders should work on spreading awareness about the funding support mechanisms.

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[28] Amit Shukla, "Rooftop Solar and Storage: Offering a Viable Future for India" *Energetica India*, *available at*: https://www.energetica-india.net/articles/rooftop-solar-and-storage-offering-a-viable-future-for-india (last visited on April 05, 2024).

[29] Shashank Agarwal, "Why India's Solar Power Sector Needs an Innovation Driven Transformation" *The Economic Times*, October 23, 2021, *available at*: https://economictimes.indiatimes.com/small-biz/sme-sector/why-indias-solar-power-sector-needs-an-innovation-driven-transformation/articleshow/87219624.cms?from=mdr (last visited on April 05, 2024).

[30] Musa Erdogan and Lucila Arboleya Sarazola, *Cost of Capital Survey Shows Investments in Solar PV Can be Less Risky Than Gas Power in Emerging and Developing Economies, Though Values Remain High, IEA*, *available at*: https://www.iea.org/commentaries/cost-of-capital-survey-shows-investments-in-solar-pv-can-be-less-risky-than-gas-power-in-emerging-and-developing-economies-though-values-remain-high (last visited on April 05, 2024).

The sporadic nature of solar energy generation (dependence on the weather conditions, location, time of the day, etc.) also presents challenges in its integration with the grid. The stakeholders should develop the required technologies that are capable of balancing the demand and supply as well as in mitigating the impacts of solar intermittency.[31] Another issue is related to the infrastructural aspects. The solar power project requires a significant space for their installation. The land acquisition is still a complex, lengthy and contentious process in India. Besides land, rooftop solar installations also face challenges such as structural suitability, rooftop ownership rights in a multistory building, shading and adaptation-related issues.[32]

Additionally, the continuous advancement of solar technology in terms of efficiency enhancements, innovative and effective designs, solar energy storage solutions, etc., is no doubt providing the required impetus to transition to solar energy, but it is also encouraging people to wait for a newer version of the advancement. To deal with this, bridge technology should be developed so that new advancements can be integrated with already installed equipment.[33] With respect to the challenges concerning the policy and regulatory framework, the government has been trying to make it conducive to the solar energy transition but still there are issues related to the inconsistent policies, regulatory barriers, bureaucratic red-tapism. Concerted efforts are required to streamline the approval process. The long-term conducive policies, stability, and easy access to the offered incentives provide the required boost to the solar investment and its transition.[34]

Fiscal viability increases the adoption of solar power. But still, there is a disconnect between government initiatives and public awareness. The transition-oriented regulatory framework, affordable rooftop solar panels, net metering policies, incentivizing decentralized energy production, consumption, storage, etc., have not been streamlined. A strong movement for

[31] KVS Baba, "Grid Integration of Renewables" *IITK*, *available at*: https://iitk.ac.in/doms/anoops/for14/photos/PPTs/Day%20-%201%20IITK/Grid_Integration_Renewables%20-%20Mr.%20K%20V%20S%20Baba.pdf (last visited on April 05, 2024).

[32] Varchasvi Gagal, "Land Acquisition Continues to be a Roadblock for Renewable Energy Projects" *The Hindu Business Line*, August 25, 2022, *available at*: https://www.thehindubusinessline.com/opinion/land-acquisition-continues-to-be-a-roadblock-for-renewable-energy-projects/article65809202.ece (last visited on April 06, 2024).

[33] Manoj Nair, "Technologies Revolutionizing Solar Energies" *PV Magazine*, June 07, 2022, *available at*: https://www.pv-magazine-india.com/2022/06/07/technologies-revolutionizing-solar-energy/ (last visited on April 06, 2024).

[34] Rajdutt Shekhar Singh and Swekcha Singh, "How the Legal Framework Can be Modified to Facilitate the Expansion of the Renewable Energy Industry" *The Economic Times*, May 05, 2023, *available at*: https://economictimes.indiatimes.com/small-biz/sme-sector/how-the-legal-framework-can-be-modified-to-facilitate-the-expansion-of-the-renewable-energy-industry/articleshow/100003716.cms?from=mdr (last visited on April 06, 2024).

public awareness and community engagement is the need of the hour.[35] The required efficient storage technology and grid infrastructure are lacking at the ground level. In order to make it a mass-oriented transition, it is necessary to develop advanced storage technology that can instil confidence in energy accessibility during low sunlight hours. Further, there is also an urgent need for the creation of ground-level infrastructure that can facilitate the integration of the generated solar power. Further, the smart grid and microgrids should installed to ensure the integration and reliability of electricity supply.[36]

Another challenge is related to the preparing a skilled workforce capable of designing, installing, operating, and maintaining the whole solar power system. At present there lack of adequate training program, vocational courses, or specialized institutions for that purpose. The more the solar energy transition is reaching the ground level the more a necessity of qualified professionals and technician would be required. Thus government must, in proactive manner initiate the required measures.[37] The larger perspective with respect to the environmental and social impacts should be evolved. The solar energy transition will also come with various kind of adverse impacts on the environment and society. For example, the large scale solar power plants would require land, it may result in habitat loss, water wastage, e-waste through utilized solar panels, etc. Besides this, there might be social issues such as displacement of communities, livelihood disruptions, land degradations, legal issues with respect to the change of land use, etc. All these issues must be taken care of through stakeholders' consultation, inclusive and participatory planning, and adoption of the model like equitable benefit-sharing mechanisms.[38]

The solar energy transition is also going to have a big impact on the overall functioning of the energy market in India. As it is going to compete with the conventional energy resources which still dominate the market, it must have the capability to do constructive destruction without substantial adverse impact on the market stakeholders. The ongoing push for the solar energy transition should be carefully handled, as there would be market distortion,

[35] PRS Legislative Research, *Report of NITI Aayog on Renewables Integration in India, available at*: https://prsindia.org/policy/report-summaries/report-of-niti-aayog-on-renewables-integration-in-india (last visited on April 06, 2024).
[36] *Supra* note 27.
[37] Rakesh Ranjan, "Escalating Shortage of Skilled Labor Threatens the Solar Sector" *MERCOM*, *available at*: https://www.mercomindia.com/shortage-skilled-labor-threatens-solar-sector (last visited on April 07, 2024).
[38] Muhamed Farghali, Ahmed I. Osman, "Social, Environmental, and Economic Consequences of Integrating Renewable Energies in the Electricity Sector: A Review" *Environ Chem Lett* 21 (2023), *available at*: https://link.springer.com/article/10.1007/s10311-023-01587-1 (last visited on April 07, 2024).

subsidies and tariff policies favouring solar energy generation. Further, the fast transition may disrupt the energy market and may create an energy shortage during the transition phase. Thus, the transition should be well-planned and cautiously implemented.[39] The above-discussed challenges highlight the multifaceted nature of the solar energy transition in India. These challenges underscore the need for coordinated efforts from the government, industry, academia, and civil society to overcome the obstacles and realize the full potential of solar energy as a sustainable and reliable energy source.

VI.
Opportunity for Solar Energy Transition

The solar energy transition provides a great opportunity to India to address its energy needs as well as to achieve its sustainability goals. With its fast-emerging economy and huge population, India faces various challenges, such as increasing energy demand, energy security-related concerns, environmental degradation and climate change. Amidst these challenges also lies an opportunity in the form of solar energy. This option is further strengthened by the factors such as favourable geographical conditions, technological advancements, policy support and declining cost of equipment. By leveraging these factors, India can effective harness the abundant solar potential and accelerate it transition to a cleaner and more sustainable source of energy. This transition not only offers an economic benefit but also provides solutions to many environmental issues. The upcoming paragraphs have appraised the potential benefits and opportunities attached with the solar energy transition in India.

India is the most suitable region for solar energy generation as it receives ample sunlight throughout the year. India has more than 300 days of sunlight and thus has the potential to generate more than 5000 trillion kilowatt-hours of energy.[40] The ongoing sharp decline in the cost of solar PV panels makes it a competitive option compared to conventional energy sources. This has further led to a significant decrease in solar power tariffs, making it

[39] Gautam Raina and Sunanda Sinha, "Outlook on the Indian Scenario of Solar Energy Strategies: Policies and Challenges" *Energy Strategy Review 24* (2019), *available at*: https://www.sciencedirect.com/science/article/pii/S2211467X1930032X (last visited on April 07, 2024).

[40] IREDA, *Solar Energy, available at*: https://www.ireda.in/solar-energy#:~:text=India%20is%20endowed%20with%20abundant,m%20per%20day (last visited on April 08, 2024).

affordable and cost-effective for consumers and industries.[41] The solar energy transition is also getting strong backing from the government of India. Through various policy measures and incentives, the transition is being fast processed. The government schemes such as the National Solar Mission and the Solar Park Development have been instruments in securing investment and enhancing the deployment of solar energy projects across the country.[42]

Besides the policy support, the government, through various mechanisms such as tax incentives, easy loans, grants, and subsidies, incentivizes investment and consequently pushes for the solar energy transition in India. The new financial models such as power purchasing agreements (PPA), easy leasing and reduced upfront costs and financial barriers are contributing to the fast transition of the solar energy in India.[43] The solar energy transition also has huge potential for the employment opportunities and economic growth. From solar power project's planning to execution, at every step there is need for skilled human resource, thus, it will lead to numerous employment opportunities in manufacturing, construction, engineering and the related industries. The labor which will be unemployed due to transition can easily with some training be absorbed in the solar power sector. The localization of the manufacturing will also give the required push to India's industrialization.[44]

Undoubtedly solar energy is a sustainable and indigenous source of energy. It will reduce the dependence on imported fossil fuels, thereby ensuring energy security and independence. This will also immune India from the volatile international energy market.[45] Solar energy also provides a viable solution to the rural electrification and energy poverty. It can also provide an off-grid, decentralized solar power system for remote and hilly areas. It can also provide access to clean and reliable sources of energy to the underserved communities, thereby

[41] R. Shree Ram, "Falling Cost, Governing Incentives to Fast-Track Rooftop Solar Installations" *Money Control*, March 05, 2024, *available at*: https://www.moneycontrol.com/news/opinion/falling-costs-government-incentives-to-accelerate-rooftop-solar-installations-12402551.html (last visited on April 08, 2024).
[42] MNRE, Solar Overview, *available at*: https://mnre.gov.in/solar-overview/ (last visited on April 08, 2024).
[43] Manish Kumar, "Cover Story: Increased Govt. Thrust Set to Give Rooftop Solar Financing a Fillip" *Saur Energy International*, February 13, 2024, *available at*: https://www.saurenergy.com/solar-energy-articles/cover-story-increased-govt-thrust-set-to-give-rooftop-solar-financing-a-fillip (last visited on April 08, 2024).
[44]The Economic Times, "Renewable Created Nearly 1 Million Jobs in India in 2022: Report," *The Economic Times,* October 05, 2023, *available at*: https://economictimes.indiatimes.com/industry/renewables/renewables-created-nearly-1-million-jobs-in-2022-in-india-report/articleshow/104188637.cms (last visited on April 08, 2024).
[45] Lok Sabha Secretariat, *Energy Security, available at*: https://loksabhadocs.nic.in/Refinput/New_Reference_Notes/English/Energy_Security.pdf (last visited on April 08, 2024).

empowering them with all sorts of betterment opportunities, such as economic, educational, and health care-related, as well as overall improvement of lifestyle.[46]

The transition to solar energy will also offer an opportunity to mitigate climate change as well as reduce greenhouse gas emissions. Solar energy will also help India in meeting its international climate commitment as it has minimal carbon emissions compared to conventional sources of energy. It will also be helpful in keeping the environment clean, resulting in mitigating the adverse effects of air pollution.[47] Solar energy's rapid advancement and transition also presents opportunities for innovation, research and development in this field. Technological advancements in solar cell efficiency, energy storage, grid integration, and smart technologies are driving down overall costs and enhancing performance.[48] Additionally, India's ambitious target and potential for solar energy will attract the world to enter into collaborations for partnership, technology transfers, and knowledge exchange, which can help in developing a more equitable world in terms of access to basic energy needs.[49] Thus, it can be observed that the solar energy transition in India has the potential to offer a multitude of opportunities across economic, social, environmental and technological dimensions. Leveraging these opportunities can, besides helping it in meeting its growing energy need, can also fulfil the broader objective of economic development, energy access, climate change mitigation and technological innovations.

VII.
Conclusion and Suggestions

The immense potential of solar energy in India can play a big role in addressing the country's energy needs. It can simultaneously combat climate change and foster sustainable development. Despite facing numerous challenges, India has been making significant strides in expanding solar energy and reducing its reliance on fossil fuels. In this transition, the

[46] MNRE, *Roadmap for Promoting Solar Energy for Universal Energy Access, PIB*, July 20, 2023, *available at*: https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1941211 (last visited on April 08, 2024).
[47] Veepin Kumar and Jeevan Kumar Jethani, "Combating Climate Change Through Renewable Sources of Electricity- A Review of Rooftop Solar Projects in India" *Sustainable Energy Technologies and Assessments*, *60* (December, 2023) *available at*: https://www.sciencedirect.com/science/article/abs/pii/S2213138823005192 (last visited on April 08, 2024).
[48] Invest India, "India's Solar Power Revolution: Leading the Way in Renewable Energy," November 06, 2023, a*vailable at*: https://www.investindia.gov.in/team-india-blogs/indias-solar-power-revolution-leading-way-renewable-energy (last visited on April 09, 2024).
[49] Vardhani Ratnala, "Global Collaborations Needed for Accelerating Solar Power Deployments" *Renewable Watch,* April 05, 2024, *available at*: https://renewablewatch.in/2024/04/05/global-collaborations-needed-for-accelerating-solar-power-deployments/ (last visited on April 09, 2024).

government, through various policy measures, has been achieving ambitious targets. This has further given a boost to the adoption of solar energy across all the sectors, such as industry, agriculture, and residential. India's international collaboration on solar energy transition is giving the required momentum to its efforts. These collaborations help through the sharing of technological advancement, knowledge exchange, security of investment, etc. The fast adaptability and resilience in accepting the solar energy transition has significantly contributed in the successful implementation of decentralized solar power projects and thereby ensuring energy access and livelihood.

However, there are various kind of challenges such as grid integration issues, land acquisition issues, financial limitations, policy uncertainties, etc. These challenges require concerted efforts from all the stakeholders i.e., government, industry, and civil society to address them effectively. In order to overcome these issues, there is need to have innovative solutions such as advanced technologies for energy storage, smart grid infrastructure, streamlined regulatory framework, and capacity building so as to enhance the skills and awareness. The emphasis on the R&D in the solar technology innovation, including the advancements in solar PV efficiency, manufacturing process and hybrid systems will be critical for maintaining India's competitive edge in the global solar market. Besides making continuous efforts in advancing solar technologies, it is equally necessary to spread awareness and education about the advantages of solar energy as well as encourage community ownership and participation in renewable energy initiatives. The successful transition of solar energy will require a multi-dimensional approach encompassing policy, technology, finance, and the social engagement which must be guide by the shared commitment to a clean, secure, and sustainable energy future.

Further, in order to have smooth transition of solar energy, the following suggestion may be incorporate by India in its solar energy initiatives: The policies and regulation must be continuously revised and strengthened to provide a stable and supportive environment for solar energy investment; the land acquisition processes and land use conflicts must be streamlined through measures that facilitates the development of solar power projects; the grid infrastructure should be enhanced and innovative solutions should developed for ensuring the connection of intermittent solar power in the existing electricity grid; the funding for the solar energy projects should be increased through tax incentives, subsidies, low interest loans so that private sector investment can be attracted; the research and

development in the solar energy sector should be prioritized; There should be promotion of capacity building initiatives ranging from planning, installation, operation, maintenance, particularly in the local communities; partnership and collaboration between the government, industry, international organization should be promoted so that expertise can be leveraged, technology transfer and financial support can be ensured; public awareness campaigns and educational programs for the promotion of solar energy should be regularly conducted; A mechanism should be established to take care of monitoring, evaluation to track progress, identify challenges and adapt to the strategies accordingly; the collaboration between the public and private sector, academia, civil society, and local communities to foster the innovation, inclusivity and sustainability for ensuring the solar energy transition in India.

SIGNIFICANCE OF GREEN TRIBUNALS IN ENSURING ENVIRONMENTAL JUSTICE IN INDIA: CHALLENGES AND PROSPECTS FOR THE FUTURE

Kumar Kunal*

Abstract

Environmental justice stands as a core principle within the environmental legal framework. It encompasses judicial and administrative mechanisms, providing remedies, as well as ensuring community engagement in governance. These "access rights" stem from international commitments aimed at fostering an environmentally sustainable and equitable approach to justice. This article examines the present judicial structure in the context of environmental justice, which is an essential element toward achieving sustainable development goals. Over the past decade, the Government, Judiciary and Social Sector have shown a growing interest in addressing issues of environmental matters. The 2030 agenda has become an essential guiding principle for all the countries in the world in shaping their laws and policies to fulfil the objectives of sustainable growth and development. The Indian Government acknowledged that the environmental justice is important and the formation of National Green Tribunal was an essential step in this direction. This article aims to highlight the potential of NGT in addressing environmental cases for maintaining the balance between economic development and sustainable growth. It further delves into the various challenges that this tribunal would come across in providing the platform to marginalized and underprivileged groups for ensuring environmental justice. The article concludes with policy and legal reform recommendations for the effective functioning of NGT, thereby, increasing access of poor and vulnerable groups to socio-environmental justice.

Keywords:

National Green Tribunal (NGT), Environmental Justice, Sustainable Development, Agenda 2030, Environmental legal system

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I
Introduction

'Access to Justice' is defines as the "people's ability to aim for a remedy through formal or informal institutions of justice, and in compliance with human rights standards (United Nations Development Programme)".[1] In terms of maintaining ecological balance and sustainable growth, ensuring justice embodies the objective of providing everyone secure, balanced and sustainable environment. "This encompasses judicial and administrative procedures and remedies, as well as access to information and participation in governance. These 'access rights' are derived from international commitments aimed at ensuring that environmental justice is both sustainable and environmentally conscious."[2]

A world group on environmental legislation established legal principles sought to preserve environment and to maintain sustainable growth (World Commission on Environment and Development). It ensures:

> due process and equal treatment in administrative and judicial proceedings to all persons who are or may be affected by transboundary interference with their use of a natural resource or the environment".[3] "It further strengthens access to environmental rights by stating that State must facilitate and encourage public awareness by providing them adequate access to judicial and administrative proceedings, including redress and remedy in environmental matters (Principle 10 of the Rio Declaration).[4]

Throughout the twentieth century, environmental pollution has steadily increased due to unchecked deforestation, resource extraction, industrial and urban development. These activities have caused an unsustainable environment, resulting wastelands, polluted water bodies, the greenhouse effect, and acid rain, among other issues. Consequently, environmental protection emerged as a global concern, giving rise to the sustainable development concept. This idea gained critical importance due to reckless exploitation of

[1] Gitanjali N. Gill, "Access to Environmental Justice in India through the Courts" *Paryavaran Mitra* (2020).
[2] G. Pring et al., "Greening Justice: Creating and Improving Environmental Courts and Tribunal", *The Access Initiatives* (2009).
[3] WCED, "The Report of the World Commission on Environment and Development: Our Common Future" art.21, Annexure 1.
[4] Rio Declaration, 1992, art.10.

natural resources driven by insatiable greed and the pursuit of prosperity. While development is essential for societal progress, it cannot be achieved at the expense of environmental preservation. The continuous deterioration of the environment causes the risk of human existence.

The Brundtland Commission Report (Our Common Future) introduced the Sustainable Development concept, "the development that meets the needs of the present without compromising the ability of future generations to meet their own needs."[5] It further explained that one should not see environment and development as separate entities. It contains within it two concepts: "The first is the certainty of widespread poverty and how sustainable development requires meeting the basic needs of all and the second concept talks about the concept of restrictions placed by technological advancements and social structures on the environment's capacity to fulfil both current and future needs."[6]

Since 1987, the term 'Sustainable Development' has entered mainstream discourse and various academic fields. Additionally, "the 1992 Rio Declaration underscored that human beings are entitled to a healthy and productive life in harmony with nature."[7] UN also stated, "Human beings are entitled to a healthy and productive life in harmony with nature as the humans are at the centre of concern under Sustainable Development (Principle 1 Rio Declaration)".[8] Principle 4 asserts, "Environmental protection must be an essential component of the development process in order to achieve Sustainable Development, and it cannot be viewed separately".[9] The rise of sustainable development has fortunately aligned with a growing global consensus on human rights. As a result, economic growth grounded in the principles of sustainable development has gained widespread acceptance.

Major Objectives of this Article:

1. Evaluate the effectiveness of the NGT in addressing environmental cases.
2. Identify and analyse the challenges before the NGT in providing marginalized and underprivileged groups to ensure environmental justice.
3. Assess NGT's role in shaping environmental laws and policies in India.

[5] WCED, "The Report of the World Commission on Environment and Development: Our Common Future (1987).
[6] *Ibid.*
[7] Guiding Principles of United Nations Conference on Environment and Development, (Earth Summit, 1992).
[8] Rio Declaration, 1992, principle 1 *available at* https://link.springer.com/article/10.1007/s10393-012-0800-8 (last visited July 18, 2022).
[9] *Id.,* principle 4.

4. Propose policy and legal reform recommendations to strengthen the NGT's operation to ensure poor and vulnerable groups' access to socio-environmental justice.

II

Aarhus Convention on Access to Environmental Justice

According to Environment Protection Agency, "*Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, w.r.t the development, implementation and enforcement of environmental laws, regulations and policies*".[10] The United Nations Economic Commission for Europe adopted the Aarhus Convention on June 25, 1998.[11] The Convention is a pivotal international agreement that is based on three fundamental principles: access to information, public participation in decision-making and access to justice in environmental matters."[12]

The Aarhus Convention is centred on the transition towards a more ecologically conscious society. The environmental justice and sustainable development concept emerged globally within the ambit of environmental jurisprudence. It recognizes the importance of Principle 10 of the Rio Declaration[13] in achieving the right to sustainable growth and a clean environment.[14]

This Convention recognizes that the current generation has a responsibility for the future generations and addresses the relationship between environmental rights and rights of human being. The world can attain sustainable growth when the government is held accountable for environmental protection and there is consistent, democratic engagement between commoners and government authorities. Therefore, "The Convention is not solely an environmental accord but also a framework for ensuring government accountability, transparency, and responsiveness".[15]

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[10] *Available at* https://www.gsa.gov/reference/civil-rights-programs/environmental-justice#:~:text=GSA%20and%20Environmental%20Justice,laws%2C%20regulations%2C%20and%20policies. (last visited on Dec. 7, 2023).
[11] Aarhus Convention, 1998.
[12] A. Andrusevych and S. Kern, "Case Law of the Aarhus Convention Compliance Committee (2004-14) 3rd Edition" *European Eco Forum* (Oct. 2016).
[13] Principle 10: "Every person has access to information, can participate in the decision-making process and has access to justice in environmental matters to safeguard the right to a healthy and sustainable environment for present and future generations".
[14] Aarhus Convention, "United Nations Economic Commission for Europe" (June 28, 1998).
[15] *Ibid.*

It emphasizes the recognition and protection of community rights in the face of ecological risks, ensuring inclusive participation of affected communities in decision-making processes. It advocates for the implementation of precautionary measures to minimize risks, equitable distribution of resources, and fair compensation for those impacted by environmental harm. Central to the Convention is the preservation and improvement of the ecological diversity to support growth in a sustainable manner, while safeguarding human well-being and fundamental rights. It upholds the right to ecological security, calls for improved governance, and public engagement decisions on environment related matters, and promotes environmental education to raise awareness and understanding of sustainable development. [16]

III

Nexus between Aarhus Convention and ATJ in India

While India has not signed the Aarhus Convention, the principles enshrined in the convention have a global significance. These principles align with the broader goals of environmental governance, fostering transparency and advancing sustainable development, and are crucial in facilitating the application of access to justice within Indian environmental legal system. Some of the points highlighting its importance:

a) **Access to Information:** The Convention emphasizes the right of the common people to have access to information on environmental matters. In India, the Right to Information Act, 2005, aligns with this principle, enabling citizens to obtain information on environmental matters. This availability of information is foundation for ensuring public participation and justice.

b) **Public Participation:** The Convention encourages public involvement in environmental governance related to the environment. India has incorporated public hearings and consultations in environmental clearance procedures. The NGT, as a specialized environmental tribunal also upholds and promotes the rights of the public in environmental governance.

c) **Access to Justice:** The Convention also encourages the right of a person and groups to challenge environmental decisions. In India, the NGT is the platform that facilitates to ensure justice in environmental matters. The NGT's jurisdiction extends to hearing appeals against environmental clearances and addressing violations of environmental laws, aligning with the convention's emphasis on access to justice.

[16] Felicity Miller, "Access to Environmental Justice" 16 *Deakin Law Review* (2011).

Although, not a signatory, India's engagement with the principles of the Aarhus Convention could enhance global cooperation on environmental issues. It aligns with the spirit of international collaboration for economic development and sustainable growth. In conclusion, a positive alignment between these principles and the legal framework in India exists but there are areas where improvements are needed to ensure the effective realization of access to justice. Strengthening procedural efficiency, raising awareness, enhancing capacity, and exploring alternative dispute resolution mechanisms can contribute to a more robust and responsive environmental justice system in India.

IV

2030 Agenda on Sustainable Development

The two key components of the Million Development Goals (MDGs) human rights and environment were later incorporated in the Sustainable Development Goals (SDGs). The rights of human being were initially restricted to fundamental freedoms, but later it expanded and now it includes international peace, development in a sustainable manner, preservation of environment, and rights of minority people, etc. The right to have a dignified life is the foremost human right and it has been universally acknowledged that the right to exist in a healthy and sustainable environment is also a part of global rights of human being and we must protect it.

One of the essential aspects of achieving the target of the UN 2030 agenda for sustainable development is "to provide access to justice for all and build effective, accountable and inclusive institutions at all levels".[17] Access to justice promotes a just and equitable society in which environmental justice is essential for SDGs. To accomplish this goal, establishing specialized environmental courts to deal with environmental issues exclusively is a further improvement in the environmental rule of law. Currently, there are around 1200 environmental courts or tribunals active in the world.[18] The establishment of these courts has provided a platform for environmental issues and showed that the world is serious in addressing environmental concerns effectively.

By 2030, the SDGs seeks to enhance the rule of law and ensure equal access to justice for all individuals (Goal 16). It emphasizes the need to develop effective, transparent, and

[17] Goal 16: "United Nations Resolution adopted by General Assembly, Transforming our World: The 2030 Agenda for Sustainable Development", (Sep.25, 2015).
[18] S.Rengarajan et. al., "National Green Tribunal of India- An Observation from Environmental Judgements" 11313 *Environmental Science And Pollution Research* (2018).

accountable institutions at all levels, while fostering inclusive and participatory decision-making processes. "Additionally, the goal aims to ensure public access to information and safeguard fundamental freedoms in line with national and international agreements. It also focuses on enforcing non-discriminatory laws and policies to promote sustainable development."[19]

India's role in achieving Goal 16 is manifested through its commitment to providing access to justice by strengthening legal institutions and promoting transparency, reducing corruption, promoting the rule of law, ensuring inclusive decision-making process and providing effective legal remedies. The National Green Tribunal established in 2010 to specifically deal with environmental issues is a positive step in this direction.

V

Access to Justice in Indian Scenario

Initially, the Indian Constitution of 1950 did not address environmental pollution explicitly. However, in response to growing international environmental awareness, the Constitution of India became the first one to include provisions on environmental protection through the changes made in 42nd Amendment in 1976. This amendment added Article 48A under the Directive Principles of State Policy (DPSP), which mandates the government to protect the environment, and Article 51A(g) under Fundamental Duties, requiring citizens to safeguard and improve the environment. Indian courts have reinforced these provisions, treating environmental and public health protection as constitutional duties, and have delivered significant rulings expanding the scope of various constitutional Articles to support environmental protection.

India has since then passed many legislations for the protection and management of the environment. These steps include, "The Environment Protection Act (1986), The Air Act (1981), The Water Act (1974), The Noise Pollution (Regulation and Control) Rules (2000)," etc., and paved the way towards sustainable development. The Indian judiciary also promoted new ways for securing the environmental rights. The judiciary, from time to time, took the matter into its hand when the legislature failed to take any effective measures against those who are continuously harming our ecological balance and has given some extraordinary judgments.

[19] United Nations Global Impact, "SDG 16 Business Framework - Inspiring Transformational Governance" *available at:* https://sdg16.unglobalcompact.org/target-16-3/ (last visited on Sep.10, 2022).

The higher judiciary, in its role as protector of fundamental rights, expanded the interpretation of the "right to life" under Article 21, ruling that, “it includes the right to live in a safe and clean environment”.[20] The courts also emphasized that protecting the environment is a social responsibility, and every citizen has a constitutional duty to uphold this obligation under Article 51A(g).

In the MC Mehta Case (1992), [21] the Supreme Court acknowledged that environmental changes are an unavoidable result of industrial development. However, it also emphasized that such development should not compromise environmental quality to the point where air, water, and land pollution become a health risk for local residents.

These legislations and judicial activism were still inadequate and incapable of checking the environmental deterioration and pollution control. To address the strain on regular courts and their lack of expertise in environmental cases involving scientific and technical components, the 186th Law Commission of India Report (2003)[22] proposed the creation of an environmental court. India, having already been a pioneer in constitutional provisions for environmental protection, became the third country globally to establish such environmental court, known as the National Green Tribunal (NGT), to handle such issues.

VI

Need for NGT

A quasi-judicial body, the NGT formed in 2010, provide swift justice in civil cases involving environmental issues. “It addresses the enforcement of environmental rights and offers relief and compensation for damages to individuals and property.”[23] The principles of ‘**Inter-generational equity**, **Sustainable Development**, **Polluter Pays Principle** and **Precautionary Principle’** guides the NGT while passing any order.[24] The NGT brought a new phase in environmental jurisdiction by replacing the ‘National Environment Appellate Authority (NEAA) of the Ministry of Environment and Forest’.[25] The NEAA was established

[20] *Bandhua Mukti Morcha* v. *U.O.I.,*AIR 1984 SC 802.
[21] *MC Mehta* v. *Union of India and Ors*. 1992 3 SCC 256.
[22] Law Commission of India, “186th Report on Proposal to Constitute Environment Courts” (Sep. 2003).
[23] Gitanjali Gill, “Access to Environmental Justice in India with Special Reference to National Green Tribunal: A Step in the Right Direction” 6 *OIDA IJSD* 25-36 (2013) *available at:* https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2372921 (last visited on July 18, 2022).
[24] National Green Tribunal Act, 2010 (Act 19 of 2010), s.20.
[25] S. Rengarajan, D. Ramachandran, et.al., “National Green Tribunal of India- An Observation from Environmental Judgments” 25 *ESPR* 11313-11318 (2018).

by the Parliament in 1997, but mostly, remained non-functional and proved to be an absolute failure in dealing with environmental cases.

The NGT serves as a fast-track court designed to balance environmental protection with development needs. "Its main office is based in New Delhi, supported by four regional branches in Bhopal (Central Zone), Pune (West Zone), Kolkata (East Zone), and Chennai (South Zone), collectively covering all states across India."[26] The NGT was established to handle all civil cases concerning significant environmental issues as outlined in Section 2(m)[27] of the NGT Act, 2010. "This includes cases where there is a direct breach of specific statutory environmental obligations by an individual and the enforcement of legal environmental rights."[28]

The NGT specifically deals with cases of "environmental clearances for development projects that include dams, hydroelectric projects, and thermal power plants; coastal zone regulations; encroachments on the floodplains; issues relating to pollution and imposition of environmental fines".[29] It, therefore, has significantly contributed to develop a symbiotic connection between development and the environment.

VII

Method and Procedure followed by NGT

Under Section 19 of the NGT Act, 2010, the tribunal has the authority to manage its own procedures. "While it possesses the powers of a civil court, it is not required to follow the procedural rules set out in the Code of Civil Procedure, 1908, or the Indian Evidence Act, 1872".[30] The principles of natural justice guides the NGT for discharging its functions. The principles of "public trust doctrine, inter-generational equity, precautionary and polluter pay principle" are also significant factors in deciding environmental disputes.

The tribunal has the authority to establish its own rules, as applications before it differ fundamentally from civil suits or writ petitions.[31] Instead of automatically issuing notices to all parties named as respondents, the tribunal identifies the essential parties and requests that they submit their replies via email. "The approach helps reduce both time and expenses, as

[26] *Id.* at 11313.
[27] *Supra* note 24, s.2(m).
[28] *Available at* https://www.indiacode.nic.in/bitstream/123456789/2025/1/AA2010__19green.pdf (last visited on July 18, 2022).
[29] *Supra* note 24, ss. 25-26.
[30] National Green Tribunal Act, 2010 (Act 19 of 2010), ss.19 (1), 19(3).
[31] National Green Tribunal Act, 2010, India, *available at:* https://greentribunal.gov.in/methodology-ngt (last visited on January 20, 2022).

outlined in "the statutes listed under Schedule I of the NGT Act, 2010".[32] "The Tribunal also entertains letter petitions that bring to light instances of substantial environmental damage. Even if there is no representation or advocate from the aggrieved party, the tribunal takes note of a valid complaint and may seek a response via email."[33]

Further, the NGT can also issue directions to submit the factual report to identify statutory authorities, to investigate the claims of environmental damage. It can then issue an enforceable order, directing the relevant authority to respond appropriately to stop pollution, be compensated, and bring action in court against the polluter in question.[34] "The Tribunal is composed of former High Court judges, ex-chief secretaries, and subject matter experts to ensure timely enforcement of its orders. When regional benches lack a full complement of judicial and expert members, the Principal Bench in New Delhi addresses cases from other regions through video conferencing to accommodate the needs of litigants."[35]

A dynamic society has elevated the importance of environmental justice, contributing to the institutional development of Indian democracy. In evaluating the effectiveness of environmental courts and tribunals (ECT), twelve key characteristics were identified as essential for their functioning. "These include status and authority, independence, centralized jurisdiction, expertise of judges and members, functioning as a multi-door courthouse, access to scientific and technical knowledge, enhancing access to justice, swift and cost-effective dispute resolution, responsiveness to environmental issues, advancement of ecological jurisprudence, core ethos and mission, and flexibility to provide innovative and value-added functions."[36]

The NGT holds the authority to adjudicate environmental matters falling under the jurisdiction of several key legislations. These include, "the Water (Prevention and Control of Pollution) Act, 1974, the Water (Prevention and Control of Pollution) Cess Act, 1977, the Forest (Conservation) Act, 1980, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability Insurance Act, 1991, and the Biological Diversity Act, 2002".[37]

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[32] *Ibid*.
[33] *Ibid*.
[34] *Ibid.*
[35] *Ibid.*
[36] *Supra* note 25 at 11314.
[37] National Green Tribunal Act, 2010 (Act 19 of 2010), Schedule I.

Environmental petitions are categorized into various sectors, such as air, water, waste management, noise pollution, nature conservation, industrial activities, power plants, mining industries, and compensation for polluting environment. The NGT addresses disputes arising from these areas, operating as per the natural justice principles.

VIII

Analysis of Judgments delivered by NGT until 2023

The existence of a vibrant society has made environmental justice significant in its capacity, which helps in the institutional evolution of Indian democracy. To assess the successful operation of green tribunals, twelve key characters were found suitable for their existence. These include, "status and authority; independence; centralized jurisdiction; knowledge of judges and members; operating as a multi-door courthouse; access to scientific and technical expertise; facilitating access to justice; quick and cheap resolution of disputes; responsiveness to environmental problems; development of ecological jurisprudence; underlying ethos and mission; and flexible, innovative and provides value-adding function".[38]

While NGT judgments and orders are accessible on its website, the overview of this chapter provides a summary of NGT's performance over the last 5 years. It covers case disposal, administrative and procedural initiatives, court and case management, suo-motu interventions addressing environmental degradation, and compensation for violations of environmental norms, along with other significant interventions.

The website of NGT website shows that until December 2023, 43,524 cases have been instituted in all the zonal benches of NGT since its inception. Of those, 40,706 cases have been disposed, and only 2818 cases were pending. That means NGT has disposed of 93.5 per cent of the cases instituted at the tribunal. This indicates a significant level of efficiency in case disposal with a disposal rate of 93.5 percent. This high disposal rate suggests that the NGT has been relatively effective in addressing environmental cases within its jurisdiction. It also showcases a proactive approach of NGT in resolving issues and ensuring a timely judicial process, which is crucial in matters related to environmental concerns. All these cases are broadly related to industrial & mining operations, water, air, noise, waste management, and environmental compensations.

[38] *Supra* note 25 at 11314.

In light of the cases mentioned above, this study focuses on examining the environmental rulings of the NGT, and special attention is given to the judgments issued by its Principal Bench in New Delhi.

The data on the official NGT website shows that there is a trend of an increased number of judgments with each passing year. The data shows that the disposal of cases has been done with efficiency and speed. The question of whether the NGT has been able to adjudicate more effectively remains unresolved. This uncertainty arises from the lack of a robust methodology for determining environmental compensation. These data indicate that there is a growing concern about environmental issues in India. On the other hand, people are becoming aware of their environmental rights linked with their human rights. Going through the data available on the official NGT website, in 2011 only 28 orders were passed by the NGT, which increased to 510 in 2016. In 2019, 1570 cases were disposed of, which grew to 2700 in 2020. There was a slight reduction in 2021, with 2600 cases being disposed of up to December and 2882 cases were disposed in 2023. The reduction in the disposal of cases in 2021 was also due to the Covid-19 pandemic that affected the institution's functioning.

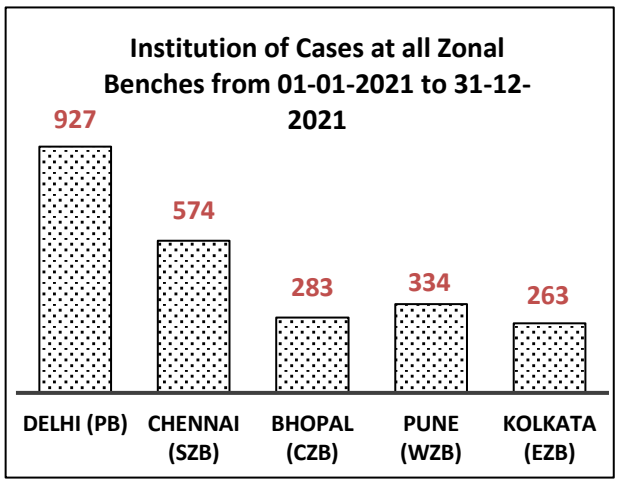

Figure 1. Source NGT website

There were 2381 cases instituted in 2021 on all benches. While Principal Bench received the most cases with 927 cases, followed by South Zone with 574 cases, Central Bench with 283 cases, West Zone with 334 cases, and East Zone received 263 (Figure 1).

Overall, 2600 cases were disposed and 2390 cases remained pending by the end of 2021. Looking at each zonal bench, Principal Bench at Delhi has disposed the maximum number of cases with 1110, followed by South Zone (Chennai) with 549 cases, East Zone (321 cases), Central Zone (319 cases), and West Zone (301 cases).

The data above shows that the principal bench receives the most significant number of the petition, and the disposal rate is high. However, it is noteworthy that Delhi also has a high number of pending cases at 670 followed by Pune (696), Chennai (559), Kolkata (309) and Bhopal (156). While the disposal rates are commendable, the persisting number of pending

cases, especially in certain zones, may indicate challenges in achieving swift resolutions or addressing a high caseload.

IX
Compensation Framework of NGT

The increasing influence of human activities on the environment is a major concern at the global level, and India is no exception to this trend. The allure of the benefits nature provides often blinds us to the environmental costs involved. With economic considerations taking precedence over other factors, the notion of environmental compensation has emerged as a means to address these issues.

Section 20 of the Act grants it broad discretion in determining and awarding compensation, as there is no specific guidelines on the minimum or maximum amounts to be awarded.[39] However, the tribunal must use its discretion while applying 'the principles of sustainable development, precautionary principle and polluter pays'. When we look there is a high disposal rate i.e. above 90 percent, it gives a picture that the cases dealt very efficiently and in speedy manner. However, it does not give a conclusive answer to the fact that whether NGT has been able to adjudicate effectively to environmental disputes, as it does not have any effective method to determine environmental compensation.

The evaluation of compensation is important because it not only addresses the needs of affected people but also reflects the tribunal's quality of scientific analysis. "It indicates how accurately the Tribunal assesses environmental damage in each case and manages scientific uncertainties. Since the Tribunal has members with certain technical expertise, it could be expected that its compensation decisions generally align with the extent of environmental harm in most cases."[40] Some of the landmark judgments where the NGT awarded compensation are as follows:

1. **Paryavaran Suraksha Samiti Case (2019)**[41]**:** In this case, the NGT awarded 195 crores as compensation for illegal construction and 18.7 crores for illegal mining in

[39] National Green Tribunal Act, 2010, s.20.
[40] Raghuveer Nath & Armin Rosencranz, "Determination of Environmental Compensation: The Art of Living Case", 12 *NUJS L. Rev.* 2 (2019)
[41] *Paryavaran Suraksha Samiti & Ors.* v. *Union of India & Ors*. O.A. No. 593/2017 2017 5 SCC 326.

Yamunanagar by 3 mining companies. It also passed the order for mandatory establishment of environmental cells. "It directed the Chief Secretaries of 18 States and UTs to pay compensation as follows: Rs. 10 lakh per month for each local body with a population over 10 lakhs; Rs. 5 lakh per month between 5-10 lakhs; and Rs. 1 lakh per month for each other local body. These payments are required until compliance with the order is achieved".[42]

2. **Art of Living Case (2016):[43]**

Facts: The Art of Living Foundation (ALF) is a Non-Governmental Organization (NGO), established in 1981 by Shri Ravi Shankar that focus on humanitarian and educational matters. It organized the World Cultural Festival on the ecologically fragile Yamuna floodplains in New Delhi in March 2016 to celebrate its 35th anniversary. Despite the Yamuna banks being an ecological sensitive area, extensive arrangements were made for the festival, leading to concerns about environmental impact. On February 8, 2016, a petition was submitted to the NGT challenging the Delhi Development Authority (DDA), with the ALF and MoEFCC listed as respondents.

Issues:

This case raised two major issues: First, whether the Yamuna flood plains and wetlands suffered biological, environmental or ecological harm because of the festival organised by the ALF. Second, if adverse environmental impact is established, whether it will be liable to pay the fines for the damage it caused and to restore the area to its pre-existing condition.

Judgment:

In its interim order on March 9, 2016, the Court directed the ALF to pay Rs. 5 Crore in compensation. In its final order on December 7, 2017, the Court held the foundation accountable for damages to the Yamuna floodplains and mandated their restoration to the pre-event condition, using the deposited Rs. 5 Crore for environmental compensation. Despite an NGT-appointed expert panel recommending a higher fine of 42 crores for rehabilitation, the Tribunal in its final decision directed the Delhi Development Authority to utilize the said amount for restoration activities. The DDA was authorized to recover additional compensation if further restoration was required.

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[42] *Ibid.*

[43] *Manoj Mishra* v. *Delhi Development Authority & Ors.* O.A. no. 65 0f 2016.

Analysis:

The NGT's compensation decisions lack a clear methodology, raising questions about quantitative assessment accuracy. The cultural festival allowed on the Yamuna flood plain, though it was declared as ecologically sensitive zone by the NGT, thus prohibiting any developmental activity thereon.[44] The festival was permitted on the flood plain on the ground that the work had already commenced. Contradictions and lack of scientific approach in the Expert Committee's recommendations are evident, including reliance on visual assessment rather than rigorous scientific analysis. The NGT's failure to hold government organizations accountable for wrongly granting permissions is criticized, creating a precedent for "pay and pollute." Reductions in compensation amounts raise concerns about the influence of high-profile event attendees on the tribunal's decisions.

Conclusion:

The NGT's handling of the Art of Living Foundation case has sparked significant criticism, highlighting potential shortcomings in its approach to environmental issues. The judgment's impact on future environmental cases and its alignment with the NGT's primary goal of environmental protection are subjects of concern. The case sets a questionable precedent and reduce public trust in the tribunal's capacity to handle efficiently environmental issues.

3. **LG Polymers Chemical Plant Gas Leak, Vishakhapatnam (2020)[45]:** The NGT directed LG Polymers to deposit initially 50 crore rupees as compensation for the victims of the styrene gas leak. It held the company liable for negligence and harm caused to the environment due to the leak. To prevent similar occurrences in the future, the NGT instructed MoEFCC to make sure that environmental rules and regulations are strictly followed.

The gas leak incident in Venkatpuram village, Vishakhapatnam, in May 2020 led to 11 deaths and over 100 hospitalizations. The NGT suo-motu took over the matter and appointed a committee to investigate. It also and directed the industry to deposit Rs. 50 Cr as security. The industry challenged NGT's suo-motu powers in the Supreme Court, arguing that other bodies were already investigating. The SC directed the industry to raise concerns before the

[44] Sanjay Parikh and Geetanjoy Sahu, "Has the Judiciary Abandoned Environment for Neoliberalism?" EPW V.58 I.13, 01 April, 2023. *Available at* https://www.epw.in/engage/article/has-judiciary-abandoned-environment-neoliberalism.

[45] In *re*: Gas Leak at LG Polymers Chemical Plant in Visakhapatnam in Andhra Pradesh O.A. No. 73 of 2020.

NGT. The NGT, in its judgment, affirmed its powers and the SC has stayed further proceedings. The NGT's actions align with environmental rule of law, emphasizing the importance of a fair, transparent justice system, adherence to natural justice principles, and timely resolutions in environmental cases. NGT's exercise of suo-motu powers should be clarified either by the SC or by legislative amendment to avoid delays and ensure efficient handling of environmental cases.

In numerous instances, the NGT has granted exemplary environmental compensation, amounting to multi-crore rupees for the restoration and restitution of environmental damage and degradation. Over the last 5 years i.e. from the year 2018 to 2023, the Principal Bench of the tribunal has imposed an approximate sum of 2335.87 crores Rupees on various parties.[46] If utilized diligently for environmental restoration, this amount could lead to significant improvement.

Although the high compensation amounts are the need of the hour to discourage such violation of environmental laws but it is also true that such recent trends of the NGT is only an exception and not the norm. If we look at some of the above-mentioned cases, we find that the NGT had no clear method to assess environmental damage. For example in '**Art of Living'** case[47], the NGT drastically lowered the amount from 120 crores rupees to 28.73 crores and then finally settled at rupees five crore as fine. It shows the lack of clarity on scientific understanding of the quantifiable damage cost and the investigation to be conducted in such cases.

X

Suo-Motu Jurisdiction of NGT

One of the most disputed matters on the jurisdiction of the NGT is its exercise of suo-motu powers, wherein it takes cognizance of an issue on its own initiative rather than in response to a filed petition. The first instance of suo-motu case was in 2013 when Justice Swatanter Kumar took notice of a newspaper article about constructions in the Aravallis of Haryana State. Subsequently, the NGT has initiated several cases suo-motu. Legal scholars have engaged in a debate over whether the NGT possesses the authority to take up matters on its

[46] Dr. Moatoshi Ao, "A Review of the NGT on Environmental Compensation and Waste Management Implementation", LiveLaw (28 June 2023).
[47] *Manoj Mishra* v. *Art of Living Foundation & Ors.* (O.A. No. 65 of 2016).

own accord. This debate has arisen because the NGT Act of 2010 and the accompanying rules do not explicitly mention the tribunal's power to take suo-motu cognisance.[48]

Taking up suo-motu cases has also created a conflict and the Madras High Court in one of its decision even stated that NGT could not take up any matter suo-motu. The Supreme Court finally settled the issue recently in the decision of ***Ankita Sinha Case***[49] that was delivered on 7th October 2021. The three-judge bench held, "Even though the principal Act of 2010 does not expressly provide the NGT with the power to take suo-motu cognizance, the NGT can exercise suo-motu jurisdiction in the discharge of its functions under the NGT Act. Further, the NGT's suo-motu jurisdiction would be subject to the principles of natural justice and fair play. It is further observed that the NGT is armed with "self-activating capacity" under Sec.14 (1) of the NGT Act. Therefore, when it is not feasible for individuals to initiate action before NGT due to a lack of means or resources to access justice, the NGT can take suo-motu action if it involves a substantial question of the environment."[50] The decision of SC in recognizing the suo-motu power of NGT is significant as it gives more autonomy to the tribunal to take up cases concerning environmental issues.

While the Supreme Court's acknowledgment of the NGT's suo-motu power is significant, concerns arise from the selective exercise of this power and the implications of its decisions. The first concern revolves around equality, as individual applicants must prove reasons for filing applications beyond the prescribed timeline, whereas the NGT, when initiating environmental matters suo-motu, faces no procedural limitations. The second concern pertains to enforcement, as there are no applicants or local community members to provide information on whether the NGT's suo-motu orders have been complied with. Thirdly, there is an excessive reliance on statements from government functionaries in suo-motu matters, rather than statements from independent concerned persons or affected individuals. Lastly, there is a tendency to prioritize the NGT's suo-motu matters over appeals and applications filed by affected people, which have been pending for many years.[51]

[48] Geetanjoy Sahu and Ritwick Dutta, "The Green Tribunal in India after 10 Years: From Ascendancy to Crisis", *Economic & Political Weekly* Vol. LVI No. 52 (Dec. 25, 2021).
[49] *Municipal Corporation of Greater Mumbai* v. *Ankita Sinha & Others* 2021 Online SC 897.
[50] *Ibid.*
[51] Geetanjoy Sahu and Ritwick Dutta, "The Green Tribunal in India after 10 Years: From Ascendancy to Crisis", *Economic & Political Weekly* Vol. LVI No. 52 (Dec. 25, 2021).

XI

Challenges and Way Forward

Access to environmental justice is among the most significant step towards achieving sustainably viable environment. The sustainability of the environment and growth in the economy along with the social dimension of access to justice are equally important.

Environmental jurisprudence has a very complex system that includes economic and social dimensions along with ecological security. This complexity and the unwillingness of the various agencies of the State to show determination to take adequate measures in controlling the activities of polluting industries are the primary cause of the failure of environmental jurisprudence in India. In addition, the vagueness among government agencies regarding legislative and executive roles pertaining to/concerning environmental issues has not helped the matter much.

The NGT has jurisdiction on matters of *"substantial question relating to the environment.*" "These questions affect the community at large or affect public health due to environmental damage. However, there is no specific method described in law for determining substantial damage relating to the environment and it is left to the discretion of the court."[52] "There are uncertainties in scientific conclusions and the Judges have inadequate knowledge of the scientific and technical aspects of environmental issues, such as, whether the levels of pollution in a local area are within permissible limits or whether higher standards of permissible limits of pollution require to be set up."[53]

Our environmental legal system seeks to accomplish the goal enshrined in 'Art. 21, 47, 48A, and 51A (g) of the Constitution of India' through efficient and effective judicial process. Further, India is also committed to international treaties including the Paris Convention, 2012 to achieve the SDGs by 2030. Achieving ecological sustainability is one of the fundamental goals of SDGs, but if there were continuous degradation of the environment, this target would be challenging to achieve.

Though India has some powerful statutory laws and policies for environmental protection, deterioration to ecology continues to persist at an alarming rate. This is due to ineffective

[52] National Green Tribunal Act, 2010 (Act 19 of 2010), s.14(1).
[53] G. Gill, "The National Green Tribunal of India: A Sustainable Future through the Principles of International Environmental Law" 16 *Environmental Law Review* 183-202 (2014).

mechanisms in implementing these laws and reactive action by our policymakers when the threat already crosses a limit.

The regular interference from the government and restricted power of NGT in implementing its order often causes problems in addressing environmental issues. Often, there arises a jurisdiction conflict between various High Courts and the NGT on environmental issues. The ambiguity regarding the jurisdiction of the NGT has often resulted in High Court taking up matters related to environmental causes, as the NGT Act does not make the question that is substantial to the environment very clear. Moreover, the NGT is not empowered to hear all matters related to the environment but only those related to Schedule 1 of the NGT Act. The MoEFCC and the Union Government have also accused NGT of overstepping its jurisdiction. Therefore, it often tries to curb the power of NGT whenever NGT tries to impose its decision on the government.

Areas for Improvement:

a) **Procedural Barriers:** Despite the establishment of the NGT, there are instances where procedural barriers, such as legal complexities and delays, hinder effective access to justice. Simplifying legal procedures and expediting the resolution of cases would enhance the tribunal's effectiveness in aligning with the Aarhus Convention's principles.
b) **Limited Awareness and Capacity:** There is a need to improve awareness among the public about their rights and the mechanisms available including enhancement of the capacity of stakeholders, including NGOs and the public, to actively participate in legal proceedings would contribute to a more robust implementation of the convention.
c) **Ensuring Remedial Measures:** While the NGT has the authority to provide remedies in the form of compensation or corrective action, ensuring the effective enforcement of its decisions remains a challenge. Strengthening the mechanisms for enforcement will contribute towards access to justice in environmental matters.
d) **Promotion of Alternative Dispute Resolution (ADR):** The Aarhus Convention supports the use of ADR mechanism in such environmental related disputes. Integrating ADR into the Indian legal framework and promoting its utilization in environmental matters could complement the formal legal processes, potentially reducing the burden on the NGT and providing quicker resolutions.

e) **No wider Outreach:** Further, there is no comprehensive outreach of NGT since it has only four branches and the Principal Bench in New Delhi. It, therefore, restricts the community at large affected in other states from having access to environmental justice. To make NGT more accessible to those affected by ecological damage public at large, it needs to have simple procedures, increase legal awareness, and provide resource and support and actively engage with vulnerable communities. These measures would promote environmental justice and empower marginalized populations to seek redress for environmental grievances.

XII

Conclusion

The environmental jurisprudence in India is still at a developing stage and there is much scope for improvement. The NGT established in 2010 is a positive step in this direction. The environmental cases registered have been increasing which shows the growing trust among people in this institution. The enormous pressure from the government and lack of resources and workforce has somehow affected its functioning. However, even with limited power and resources, the NGT has shown that the people can trust the judiciary whenever there is a threat on the right of people to live in a pollution-free environment. The powers, authority, and jurisdictional area of NGT can be widened to bring within its ambit all the cases on the environment. It would also help in addressing the issues surrounding the substantial question concerning the environment.

There is also need for further research and investigation in various areas, including assessing the impact of NGT decisions, understanding public participation, examining the role of NGOs and political parties, improving enforcement mechanisms, and exploring interdisciplinary approaches to environmental governance. These measures collectively aim to strengthen the NGT's role in environmental justice and sustainable development.

A CASE FOR PROTECTED INDIAN WATERS

Ms. Sumi Sara Rajan*

Abstract

Water pollution has caused our rivers and associated inland water network to cripple. The pitiful condition of the river Ganga that lies choking on the mires of burgeoning city lives as a startling testament. So how do we cleanse our rivers? The Uttrakhand High Court, in an unprecedented move, conferred legal personhood to these living non-entities, unwittingly producing challenges in the wake of their rulings. By reading rights for the rivers equivalent to human rights, the higher judiciary uncovered jurisprudential infancy concerning conferring legal identity to nature's inanimate assets, which do not fully ply at man's behest. On the contrary, by drawing a comparison between the South African and Indian water law, a frailty is found present in the legislative writing within the domestic statute. Therefore, in the present circumstance, the judiciary has its hands tied- on one hand with the possibility of overstepping its vires and on the other summoning contestations to jurisprudence. Against this context, the study examines the protected area system in place for the marine ecosystem, proposing an extension of the concept to the inland water network, giving illustrations to produce an appreciative understanding of the regime that may supplement the existing practice to control and prevent deterioration of the riverine ecosystem before we go past a point of no return.

Keywords - Water Pollution; Environmental Rights; Human Rights; Inland Waters; Protected Area

I.

Introduction

The Indian rivers and other water sources are plagued by the vice of pollution that renders the quality of the resource unfit for natural use. The abysmal state of the waters repeatedly attracts national attention but to no avail as a Central Pollution Control Board report of 2018 cites nearly 351 river stretches as polluted after due water quality assessment. The same report identifies seven states with the most extensive foul water belts, with Maharashtra leading the group[1]. Sharing a similar fate, the holy Ganga too lies weak and dying, bleeding the sins of humankind, does Lord Brahma look in sheer horror;[2] I wonder? The competing stakes between plain apathy for riverine ecosystems and a culturally trained conservational ideal may have been the perfect impetus for the higher judiciary to confer legal status to the Ganges and Yamuna in 2017.[3] On account to grant protection, rivers are now being given legal personhoods, such as the river Whanganui in New Zealand, Columbia's Atrato or Magpie of Quebec.[4]

Nevertheless, conferring legal personhood bears complex questions, those relating to Hohfeld's rights and corresponding duties, alongside legal capacity.[5] Within this context, I attempt to locate a regime that lends enough support to the preservation measures of rivers and other pertinent water bodies that once our ancestors venerated, however not from a pietistic context but through the lens of sustainable development that appears compatible with a conservationist approach. The study is designed to address water as an indispensable asset, cautioning the myriad ways of its defilement. Contrasting the management of water pollution in South Africa and Indian laws draws out fundamental differences in the approaches adopted in these two nation states. Later, attention is placed on the regime under the Protected Areas to understand the implication of bringing riverine ecosystems within its scope, following which the concluding remarks are offered.

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[1] Shreya Verma, "Behind polluted Indian river stretches, inadequate sewage treatment." *DownToEarth*, July 15, 2021.

[2] Anika Bajpai, "Sacred Rivers: Religion and Development in Northern India — The Cornell Diplomat." *The Cornell Diplomat*, December 23, 2019.

[3] Erin L O'Donnell, "At the Intersection of the Sacred and the Legal: Rights for Nature in Uttarakhand, India" 30 *Journal of Environmental Law* 135 (2018).

[4] Kate Evans, "The New Zealand River that became a legal person." *BBC*, March 20, 2020.; Bram Ebus, and Genevieve Belmaker. "Colombia's constitutional court grants rights to the Atrato River and orders the government to clean up its waters." *Mongabay*, May 22, 2017; Olivier Pier -, et al. "Why Recognize a River's Rights? Behind the scenes of the Magpie River case in Canada." *International Rivers*, March 15, 2021.

[5] Quintana Adriano, Elvia Arcelia. "Natural Persons, Juridical Persons and Legal Personhood." 8 *Mexican Law Review*, 109 (2015).

II.

Water: Elixir of Life

Life and the lack of it are literally dependent on water. Water has always been revered as a deity for its life-sustaining properties, serving as the elixir of life. The cleansing properties of water find theistic relevance in ancient texts, mythologies and canons, in contradiction to the violent power wielded by water gods as that of Poseidon. Indications of both, albeit appearing in contrast, one as the epitome of nurturant while the other personifying brute power, demonstrate unmatched mysticism that enabled formidable deference for such entities. As most such conceptions flourished as the law of nature, fear prevented water pollution in some ways.

With changing human activities and population, water uses diversified, leading us to forecast water woes, verified by scholarly texts making references to water defilement that exposed the dwindling quality of water even in earlier times. For example, Kautilya's Artha Shastra references the prohibition of water degradation by open defecation subject to conditions of sickness or fear, with capital punishment imposed in the event of causing damage to waterworks.[6] In a similar vein, in the Manusmriti, one who obstructed or diverted water channels was condemned.[7] The concerns with water demand grew manifold with the coming of the East India Company. For instance, a deliberate shift to agriculture dramatically raised the water demand, effectuating modern irrigational set-ups. Accounts of the same can be found widely in the available literature.[8] To continue rapid agricultural expansion, possessing control and management over strategic river networks was paramount, expounds Murari Jha, a scholar who wrote about the imperialism exploitation of the river Ganga, describing the river as the 'arterial vein' of the empire.[9] Moreover, large-scale diversion of water rendered the river unable to naturally cope with purging itself of the frailties of the city life.[10] Many rivers and their tributaries shared a similar fate.

Due to the persistent issue of highly toxic waste being discharged into these water

[6] L. N. Rangarajan (ed.), *Kauṭalya :The Arthashastra* 370, 494 (Penguin Books, India, 1992).
[7] Global Vision Publishing House, *The Manusmriti*, 17(GVPH, 2021).
[8] Ratna Reddy, "Irrigation in Colonial India: A Study of Madras Presidency during 1860-1900." 25 *Economic and Political Weekly*, 1047 (1990); Ramachandra Guha, and Madhav Gadgil. "State Forestry and Social Conflict in British India." 123 *Past and Present*, 144 (1989).
[9] *The Political Economy of the Ganga River*. (2013)1 (Unpublished Doctoral dissertation, Leiden University).
[10] Beth Walker, "Water pollution worsens in the lower Ganga River." *The Third Pole*, August 19, 2016.

channels, resulting in the degradation of this natural resource to the point where it is rendered unfit for most purposes, the judiciary intervened to protect the water, securing for humans their basic necessity for survival. One of the most outstanding achievements of our Constitution is that Article 21 has been broadly articulated, presenting the higher courts to progressively read and interpret the article in tandem with changing times. Under this article, the apex court read the right to clean water as a fundamental right.[11] In most certain terms, the court held the right to life to include the right to have access to 'pollution-free' water for a meaningful life, in breach of which any individual could move the court under Article 32 to remedy the infringement. Judicial interpretations forged a step ahead with the introduction of the "Public Trust Doctrine" into the Indian environmental jurisprudence in *M.C Mehta v. Kamal Nath*.[12] In this case, the Supreme Court discusses the concept of PTD by citing several judgments from the English and United States jurisprudence, concluding that the State has a legal duty to protect these natural resources as a trustee. Cumulatively, the essential elements of the PTD make a cogent case for the state to be invested in maintaining the natural resources for the benefit and enjoyment of the people. Therefore, as in common law, so in ours, the sovereign is responsible for supporting the citizenry in realizing their right to water by maintaining an adequate freshwater supply.

III

Water Pollution: Regulation

The Stockholm Conference of 1972 was a precursor to environmental protection from the threats of expansionism. Indira Gandhi, the then prime minister of India, gathered to discuss the human environment, is remembered for her polemic speech delivered at the meeting. The global community witnessed a watershed moment as patrons adopted the Stockholm Declaration alongside an Action Plan for responsible management of the environment and associated activities.[13]The recommendations encouraged assessments and management activities and marked the beginning of a slew of global, regional, and national discourses that lay the groundwork for what was to come.

[11] *Subhash Kumar v. State of Bihar*, (1991) 1 SCC 598.
[12] *(*1997) 1 SCC 388.
[13] United Nations Conference on the Human Environment, Stockholm 1972, United Nations, *available at* https://www.un.org/en/conferences/environment/stockholm1972. (Visited on December 12, 2023).

India witnessed the most debated event of Indian constitutional history in the wake of the Conference. Widely known as the 'mini constitution', the amendments enforced by the 42nd Amendment in 1972 predicated, for the first time, explicit environmental expressions within the constitutional framework. With the entry of Articles 48A and 51A into the constitutional morality, the sovereign is guided by the directive principle to have environmental mainstreaming in all its endeavors. Additionally, as part of their fundamental duties under Article 51, the citizens are responsible for protecting and promoting the environment's health, including the waters. Therefore, it is now considered essential to regulate water pollution to achieve the constitutional mandate of water protection and prevent further deterioration of the water resources native to the Indian state. For that reason, the Parliament enacted the 'The Water (Prevention and Control of Pollution) Act, 1974' (hereinafter, the Water Act), intending to prevent and control the fouling of water alongside restoring and maintaining its 'wholesomeness' as described in the preambular text of the statute.

Since 'water' is a state subject found as Entry 17 under the State List, the state legislatures are vested with exclusive vires to enact laws concerning water supplies, storage, hydropower, irrigation works, drainage and embankments condition upon the provisions of Entry 56 of the Union List. Nonetheless, the Parliament can assume the vires of the state legislatures, provided the state assemblies pass resolutions to that effect. Therefore, under Article 252(1) of the Indian Constitution, the Parliament stands competent to enact law, giving built-in mechanisms for Central and State pollution control boards to carry out functions and tasks to realize the objectives set out in the Indian law.

A.
Pollution Regulation: Comparing Operative Provision of South Africa and India

This section compares the provisions under the National Water Act of 1998 (hereinafter NWA) and the Water (Prevention and Control of Pollution) Act, 1974. The object of fascination with the South African statute is to observe the marriage of environmental and human rights in the former as opposed to the domestic law. To begin with our analysis, I shall deliberate on the width of the term 'pollution' defined under both these statutes. Section 1 (xv) of NWA defines 'pollution' as any direct or indirect alteration of water properties to

render it ‘less’ fit to be used for any beneficial purpose as may be reasonably expected for such water use. In other words, the law suggests that any breach of the water quality that falls short to meet the standards of reasonable fitness, that such would constitute pollution. In contrast, Section 2(e) of the Water Law defines pollution as the introduction of substances into water that may lead to nuisance or contribute to its harmful alteration, rendering it unsuitable for ecosystem, domestic, agricultural, or commercial purposes. Notably, pollution under this law encompasses contamination, alteration, or discharge only if they pose a risk of nuisance or harm to use. By that principle, instances where water properties are altered without posing ‘immediate’ threats to health, safety, or other water uses would not fall within this definition. Further, it only covers harm (or injury) or the likeliness of harm (or injury) without paying much attention to the resource's fitness. The law remains silent on the yardstick of harm or injury, while the express qualification in the NWA serves as an essential ingredient (less fit) and provides the judiciary with a clear mandate, without room for discretion, to decide individual cases. Such express terms contribute clarity to ascertaining the substance and intent of the law.

Moreover, expression of conspicuity illuminates the importance of the welfare of the public vide (aa) of Section (1) (xv) of NWA, a quality found wanting under the Water law. Omission of the concept of welfare severely restricts the operation of the law, enacted to restore and maintain the ‘wholesomeness’ of water, a term and definition thereof disappearing from the body of the statute. Therefore, a natural interpretation of the provisions under Section (1) (wa) (aa) extends protection in cases where people’s welfare is inflicted with potential or actual harm. References to ‘resource quality’ [14]including the quality, quantity, reliability, characteristics and conditions of aquatic biota or riparian habitat, its protection or lack thereof come under the purview of pollution as causing or likely to cause injury, where aggrieved parties can successfully challenge such instances in the South African courts of law. On the other hand, the concept of ‘environmental flow’ tantamount to ‘resource quality’ is provided only under the Draft National Water Framework Bill, 2016.[15] In this regard, a lack of appropriate consideration can be termed a frailty under the present prevention of pollution regime found in Water law. In simpler terms, in contrast to the NWA, the position under the Indian law does not offer similar protection to the public, other biological resources, and the several reasonable uses of water

[14] s 1(xv)(cc), National Water Act of 1998.
[15] s 2(h) of the Water Framework Bill, 2016.

from an impending threat to the instream flow, water level, assurance, timing, or pattern on account of pollution. Ironically, many rivers and associated water channels have seen a dramatic decrease in the flow of water in dry seasons, particularly the Ganga, a river that lies weakened by improper sewage disposal, industrial effluents discharged into the sickly belly of the river.[16] In sum, the qualifying terms like 'less' fit, 'welfare' of the people, and 'resource quality' extend comprehensive protection to the common citizenry to move the court in cases of breach of the provisions under the NWA. The law vests the judiciary with extensive degree of latitude in construing these crucial terms within the legal framework to develop assistance for individuals, especially those who are vulnerable, to uphold their human rights alongside environmental rights. Moreover, Section 2 of the NWA explicitly mentions intergenerational equity and equitable access, among other equally crucial factors, to water, that admits more force from the 'public trusteeship of water resources' principle given under Section 3. Not to consign to oblivion the unequivocal guarantee of the Right to Environment under the South African Constitution (Section 24), which affords recognition to the right of environment that is 'not harmful to the health' and promotes the 'well-being' of the people. What is indeed found in their Constitution is a confluence of environmental rights and the allied human rights that are sought to be safeguarded for everyone. To furnish understanding in this regard, we shall aim attention to the judgement given in *HTF Developers (Pty) Ltd v The Minister of Environmental Affairs and Tourism and Others*,where the court read the term 'well-being' liberally and held it to be a reasonably open-ended concept incapacitating the court to define the usage in absolute terms.[17] On the contrary, a human right's approach is not expressly found within the Water law; nevertheless, as referenced supra, superior courts may incorporate many forward-thinking judicial articulations within the environmental jurisprudence to encourage sound management of water resources-a suggestion fraught with jurisdictional complexities.

I, now travel to the operative provisions to appreciate the impact of the requirements under the Indian law while comparing the same with NWA to bring the differences and infirmities in perspective to facilitate further comprehension. Chapter five of the Water law deals with preventing and controlling water pollution. Generally, the sections range from the power of

[16] Soumya Sarkar, "No water for a clean Ganga: Rivers reduced Row and declining health have caused much anguish" *Firstpost*, March 17, 2019; Central Pollution Control Board. *Pollution Assessment: River Ganga*. 111, 2013.
[17] *2006 (5) SA 512 (T*)

the state boards to obtain relevant information from general persons and those in charge of establishments, collect samples, enter and inspect, grant or refuse approvals to the prohibition of using water streams for disposing of pollutants.

Section 24 of the Water law bears significance in the context of the prohibition of water pollution. The term 'knowingly' essentially creates a classification between those having the knowledge of actual or potential pollution on account of their activity and those who cause pollution without the element of knowledge. In other words, a prohibition is imposed only when the pollution is likely to be or is caused knowingly. Conversely, the NWA under Section 19 aims at generating remedying effects in cases of pollution caused to waters. Further, the provisions for pollution prevention do not include the element of 'knowledge' and instead imply a 'no-fault' liability approach. Such an approach appears at variance with that taken under the Water law. Under the relevant part of the NWA, the owner, occupier or user of the land is under the obligation to undertake all reasonable remedial measures (Section 19(2)) to prevent pollution from occurring, continuing or recurring. In such cases, the catchment management authorities may either direct persons to take remedial measures or undertake necessary actions to remedy the situation, provided the costs incurred are recovered from such responsible persons. In accidental situations, the responsible person must inform the authorities and carry out actions to contain and minimise the effects of such a breach. It is observed that the responsible persons are obligated to take all necessary mitigatory steps as communicated by the agency, which steps in only when the efforts are either absent or found lacking and subsequently recover all reasonable costs. The Water law does not create this sense of accountability on the polluter and places the remedial liability to the state boards rather than the polluter, in cases of accidents, with pecuniary penalties imposed as last resort for violating orders prohibiting release of polluting matters or making ill use of water resource. Although the Indian environmental jurisprudence applies the 'polluter pay' principle, regard must be had that such cost impositions can only be achieved when particular cases end in convictions in courts with appropriate pecuniary jurisdiction. Perhaps, the preliminary analysis sets the premise to appreciate the infirmities under the Water law compared to the NWA.

B.

Transmuting Strategy

Sound water management and pollution control are paramount to reviving the dying water bodies found within our country. The judiciary has exercised the widest latitude to interpret and confer legal personhood to the rivers. The Uttrakhand High Court adopted a striking stand when granting the status of legal personhood to Ganga and Yamuna's rivers. In *Mohd Salim v State of Uttarakhand & others,* the rivers were sickened by the large volume of untreated sewage and industrial wastewater discharge that served as a lifeline for nearly 500 million people living in the vicinity of these rivers. The HC noting the sanctity of the rivers under Hindu traditions invoked the parens patriae jurisdiction, thereby declaring Ganga and Yamuna and its tributaries legal and living entities with corresponding rights and liabilities.[18] Nevertheless, the Apex Court stayed the order after the State appeal. According to the Apex Court, the order was impractical as it did not clarify positions on liability incurred by these water bodies in events such as flooding.

Further, the court opined that such interpretation interferes with the rights of other states through which these waters run, holding that the High Court went beyond its vires in passing the order.[19] The order of the High Court subsequently motivated an advocate, in *Lalit Miglani v State of Uttarakhand & Others* to move a petition seeking conferment of legal personhood to other naturally occurring entities such as the Himalayan range, streams, and glaciers to be at par with the Ganges and Yamuna.[20] Although the two rulings create a novel expression of rights conferred upon inanimate resources, they come not without challenges. As the judiciary ruled harm to Ganges and Yamuna tantamount to harm to persons, the court put the legal rights of the rivers (in this case) and human rights on the same pedestal, to the dismay of many.[21] Further, courts infusing a religious flavour in the previous ruling exhibit full potential of undermining the precedent set by the court.[22]

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[18] WPPIL 12G/2014 (High Court of Uttarakhand) 2017 [19]

[19] MG 7 Ganges Case." *Natural Justice*, available *at* https://naturaljustice.org/wp-content/uploads/2020/07/Environmental-Court-Case-Series_G anges-Case-Summary_Natural-Justice-2020.pdf. (Visited on April 13, 2023); Julia Talbot Jones, and Erin L. O'Donnell. "Creating legal rights for rivers: lessons from Australia, New Zealand, and India." 23 *Ecology and Society*, 135 (2018).

[20] WPPIL 140/2015 (High Court of Uttarakhand) 2017; *Supra* note 136 at 19.

[21] Clark, Cristy, et al. "Can You Hear the Rivers Sing? Legal Personhood, Ontology, and the Nitty-Gritty of Governance." 25 *Ecology Law Quarterly*, 816 (2018); *Supra* note 138 at 3.

[22] *Ibid.*

On the contrary, Erin O'Donnell and Julia Jones expound on the effectiveness of exhausting 'legislative channels' as in the case of New Zealand and Australia, viz a viz the Indian scenario where such rulings may be reversed in future orders.[23] Thus, innovative expressions by the judiciary have initiated discourse on the conflicting interests and liabilities incurred by the rivers, mainly when the state agencies appointed for their representation are not too willing to bear the burden. Alternatively, as previously discussed, the present protection regime lacks the teeth to offer promising outcomes. Therefore, it is suggested, an alternative approach needs to be devised in such circumstances, compelling us to uncover a solution from the protected area regime employed for our forests and wildlife conservation. Albeit not without challenges, this particular mechanism offers far fewer complexities than under the 'legal personhood' conundrum that appears to extend beyond what may be tolerated by the associated nascent jurisprudence. We shall now deal with the protected area mechanism in the following section, enabling an appreciation for the inland water protection system conceptualised under various regimes, particularly the International Union for Conservation of Nature (IUCN).

IV

Protected Area System

The premise of any protected area network is to conserve the variety of biological species found on the planet and maintain an ecological balance necessary for sustenance. The guidelines describe it as a distinctly demarcated and recognised geographical area, managed, legally or otherwise, to conserve nature alongside its associated ecosystem services and cultural values.[24] Within this conservational system, we find various management approaches, including reserves, national parks and sanctuaries classified on differential degree of protection matching the urgency of security needed to safeguard the biological variability within the designated area. In that sense, the system of protected areas embraces several management approaches of regulation and preservation that could vary from highly protected areas to sites managed by employing possibly the least restrictions. The need for multiple classifications arose from the inability to generate a straitjacket formula for

[23] Julia Talbot Jones, and Erin L. O'Donnell. "Creating legal rights for rivers: lessons from Australia, New Zealand, and India." 23 *Ecology and Society*, 7 (2018).
[24] About - Protected Areas | IUCN." *International Union for Conservation of Nature available at* https://www.iucn.org/theme/protected-areas/about. (Visited on November 14 2023).

resource and biodiversity protection, motivated by the awareness that what is desirable in one place is counter-productive in the other.

Since the protected system is based on 'trade offs', i.e. conservation becomes equivalent to abandoning the right to resources, land and other rights, the intention is to encourage a participatory approach to include and involve all stakeholders to prepare a protection scheme that generates enduring and efficient plans to promote conservation of the entire ecosystem related to that defined area. As part of the conservation regime for life below the water (similar to SDG: 14), the IUCN accommodates marine protected seascapes (MPA) to encourage coastal and marine ecosystems to augment their resilience against deterioration and climatic threats and extensive cutback on marine pollution through sound management policies and guidelines. India lists MPAs located in the peninsular region and around islands that are regulated and gives due consideration to their natural resource biome.[25] Under the MPA network, the geographical area between the marine environment, covering the 500 m of the high tide line, India has nearly 124 MPAs.[26] However, these Protected Area network extends to the marine environment, encompassing only coastal states and does not include inland water networks. However, it is these inshore aquatic systems that have been recognised as the most severely degraded despite their size.[27]

As priorly understood, the Indian law has been unable to bring forth encouraging outcomes in terms of water conservation, as evident from water quality data collated by the Central Pollution Control Board.[28]Thus, considering inland water protection under a protected area network may provide an impetus to reduce the overbearing pressures of unsustainable consumption, riverine pollution and biodiversity loss therefrom.

To enable further legal implications of such recognition, we must apprise ourselves with the workings and modestly favorable outcomes of the Protected Area regime under the domestic scheme. The implementation of the Wildlife (Protection) Act of 1972 marked a pivotal moment in India's conservation efforts, delineating three distinct categories of protected

[25]Marine Protected Areas." *ENVIS Centre on Wildlife and Protected Areas*, *available at* http://www.wiienvis.nic.in/Database/MPA_8098.aspx. (Visited on November 13 2023)
[26] Wildlife Institute of India. "*Coastal and Marine Protected Areas in India: Challenges and Way Forward*." (Wildlife Institute of India, Delhi, 2022)
[27] Nigel Dudley, (ed.), *Guidelines for Applying Protected Area Management Categories*. (IUCN, 2008).
[28] CPCB, *Suitability of River Ganga Water*, (CPCB, 2022).

areas: national parks, sanctuaries, and closed areas. Each category offers varying levels of protection, with national parks afforded the highest degree, prohibiting activities such as grazing and private land ownership within their boundaries.

Following the enactment of the National Policy for Wildlife Conservation in 1970 and subsequent legislation, there was a remarkable expansion of the protected areas network. The establishment of central and State Directorates of Wildlife Preservation bolstered administrative structures for conservation efforts. Furthermore, landmark initiatives such as Project Tiger, for instance, initiated in 1973, aimed to maintain viable tiger populations across India for diverse values including scientific, economic, aesthetic, cultural, and ecological significance.[29] Today the subcontinent boasts of a hefty cover of 1,71,921 km² including Wildlife Sanctuaries, National Parks, Tiger Reserves under the aegis of the Protected Area system, providing a safe haven for a host of endangered species in the world.[30] Additional measures included the launch of centrally sponsored schemes for National Parks and sanctuaries, adherence to international conventions on wildlife conservation, and the incorporation of forests and wildlife into the concurrent list of the Indian Constitution. Institutional developments such as Zoo authorities and Wildlife Boards further fortified the conservation framework.

The current conservation mechanism model primarily stresses managing landscape biomes for reversing, maintaining, and supporting biological diversity. Inland water protection networks found within the current Protected Area network may be found governed, yet the outside water networks demand swift attention, as evidenced by the grave conditions of many water channels.

Under IUCN's inland water protected areas, paramount importance is placed on integrated river basin management (IRBM). Such management essentially identifies river and sub-basins as basic units, concentrating on the biome and geographical aspects and preparing the best sustainable strategies to achieve water resource management.[31] To that end, a

[29] Protected Area Management in India, *available at* https://www.fao.org/3/XII/0449-B3.htm (Last Visited on April 1, 2024).
[30] Sujithra, P., Sobhana, E., et.al. (2021). Protected areas in biodiversity conservation of India: An overview. In: Biological Diversity: Current Status and Conservation Policies, Volume 1, (eds.) Kumar., V., Kumar, S., Kamboj, N., Payum, T., Kumar, P. and Kumari, S. pp. 67-76, https://doi.org/10.26832/aesa2021- bdcp-04
[31] WWF, "Applying the principles of integrated water resource and river basin management – an introduction."

systematic management network ties in well with the Aichi Target 11, projecting a target of 17% protection for global inland water areas for 2020.[32] While Bastin argues that world target could be achieved, he acknowledges the inequities present within Asian and African regions. As per India's target under Aichi, the sixth National Report exhibits that the state has achieved the feat of bringing 10% of inland water under effective conservation; worries remain that the goals achieved may be attributed to wetland conservation as opposed to preserving the riverine ecosystem, that lie on a separate footing altogether.[33] In any case, sustainable wetland management requires improving and maintaining quality water flowing through the water network, including river basin channels and groundwater. Foul water running through such channels assume a staggering plausibility to come in contact with the wetland ecosystem, degrading the same.[34] It's crucial to recognize that water is a common resource, and implementing a complete embargo is not a viable solution. Instead, cultivating a sense of value for water as a natural resource, guided by principles of intra and inter-generational equity, is essential. Therefore, to address water scarcity effectively and foster a sense of accountability and agency among people, a dual-pronged approach could involve identifying riverine systems for basin management. This could be complemented by implementing management strategies typically utilized under Protected Area regimes and leverage its force by incorporating a participatory approach involving villages and communities, along with regulatory measures, enhancing the effectiveness of water resource management efforts.

Use and abuse go hand in hand. Shine and Klemm write about the fragile river ecosystem and explain the causes of an enormous surge in water consumption motivated by population explosion, cultivation, industrial uses, and a modification of floodplains, including straightening river channels, gravel mining, and erecting embankments. It is now considered that cheaper alternatives to embankments allow the flooding of floodplains as building embankments propels spiraling problems, including increased silt deposit and restricting the

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available at https://wwfeu.awsassets.panda.org/downloads/applying_the_principles_of_integrated_water_resource_and_river_basin_management_aug_0G_ver.pdf. (Visited on November 1 2023).

[32] Lucy, Bastin et al. "Inland surface waters in protected areas globally: Current coverage and 30-year trends." *PLOS*, January 17, 2019,

[33] CBD: Aichi Target 11. "Aichi Target 11." *Convention on Biological Diversity*, *available at* https://www.cbd.int/aichi-targets/target/11. (Visited on October 11 2023).

[34] Shine Clare, and Cyrille de Klemm. *Wetlands, Water, and the Law: Using Law to Advance Wetland Conservation and Wise Use*. IUCN, 67 (1999).

swell of the water leading to intensified flooding.[35]

Dam construction, debated widely for being undertaken without proper compliance with the environmental impact assessment's condition of participatory approach of stakeholders, is another factor affecting the flow of rivers, particularly to downstream regions, which share the crippling effects of reduced flow alongside non-source pollution. Ganga suffers from excessive water re-routing through dams and reservoirs that impair river flow, thus rendering it incapable of naturally cleansing itself.[36] Shine and Klemme observe management and jurisdictional complexities between sectoral agencies because of the multiplicity of regulatory frameworks that serve different components of the same riverine system, producing a clash of objectives and administration. In that context, India must be encouraged to undertake a comprehensive approach to river basin-floodplain- groundwater management to safeguard the inland water ecosystem. Examples of dedicated legal instruments establishing agencies mandated to apply restorative guiding principles, without impairing the resource's natural, cultural or aesthetic values, are found in countries such as New Zealand, Spain, and Germany.[37]

Alternatively, a weak imitation of a protected area system for inland waters is surmised to be found as part of wetland conservation laws or, more generally, in conservation laws based on permit systems. Examples of such methods can be seen in Finland, France, and the United States, where permits are mandatory to engage in any activity that shall or will likely disrupt the water flow, river systems, and resident biological resources.[38] Some permits, like the National Pollutant Discharge Elimination System (NPDES), contain standards that must be met before discharge into the waters. Treatment technologies for the permits may be opted by the permit holder without enforcing strict impositions regarding treatment processes, thereby incentivising cost-efficient innovative methods to emerge. India's 2011 draft Groundwater Model Bill aimed for stricter water management by requiring permits for all water use. However, implementing this effectively faces challenges. Legalization and permits alone are seen as a difficult solution due to the high costs of regulation and enforcement. Partial

[35] Manoj Singh, "3,800 kilometres of embankments worsen Roods in Bihar." *The Third Pole*, October 2, 2020.; Joydeep Gupta, "Dams and embankments worsen Roods in Assam." *The Third Pole*, September 7, 2020.
[36] *Id.* at 16.
[37] *Supra* note 196 at 34.
[38] Tobias Schäfer, "Legal protection schemes for free-Rowing rivers in Europe: an overview." 13 *Sustainability*, 9,14 (2021).; *Supra* note 197 at 34.

application restricts focus to areas with depleted water source.[39] Later manifestations i.e. Groundwater Bill, 2016 and National Water Policy (ies) do not remark on the licencing systems discussed in the 2011 Bill. Poignantly, these documents were never made operative instruments, hence intention suffered at the hands of captivity. However, the issue of groundwater management presents its own set of challenges. On one hand, there is increasing recognition of groundwater as a common resource, yet its management often subject to landownership. In this context, a Protected Area regime provides flexibility to address challenges while its legal status and interpretations are clarified.

V.

Permit System Under The Protected Area Regime

Designating naturally vital river stretches as protected areas could help regulate activities that undermine the biome integrity. Dam constructions, mining for minor minerals at the shore, and untreated discharge into the watercourses are some of the vices plaguing the Indian inland water systems. For instance, formulating a permit system that regulates the building of dams under strict guidelines of upholding the cultural and natural value of the river, leading with the precautionary approach, seems relevant. Permit agencies then must observe strict compliance with guiding principles with little wriggle room for administrative discretion. Besides, establishing regular monitoring through an independent auditing process may be adopted to allay fears of abuse of power or a breach of the enumerated guidelines. Supplementing permit systems with considerations on maintaining the environmental flow of the rivers and lakes may further improve the sound scientific management of riverine health and achieve the benefits of releasing the economic value of water. In addition, engaging institutional agencies for regular desilting of sediments in these reservoirs would reduce the risk of increasing water levels, mitigating flooding risks.

On the other hand, competent authorities may take similar actions concerning mineral mining near rivers and lakeshores. Mongabay reports excessive sand mining as a significant concern in deteriorating riverine ecosystems by altering the watercourses and erosion that exposes native communities to risk.[40] A protected area system may help regulate

[39] François Molle and Alvar Closas, "Groundwater licensing and its challenges", 28 *Hydrogeology Journal* 1967 (2020).
[40] Siddharth Agarwal, and Kartik Chandramouli. "[Video] Sand mining and how it erodes lives and the

indiscriminate and unscientific mining that exposes the entire associated ecosystem to hazardous repercussions. Shine and Klemme bring examples of licensing to manage and control reckless mining. With technology and science robustly advancing, permits for such activities are granted subject to evidence that the minerals extracted will be replaced by the river's natural flow.[41] Well-designed permit rules could go a long way in ensuring sustainable mining as opposed to practices where the size of mining areas is not specified under licenses as indicated by a report by a committee, which highlighted the absence of rules for the size of the mining area.[42]

Climate change demands stronger protection for inland water networks. We need to classify these networks based on their urgency, similar to how protected areas work. Waterways facing severe decline in quality and capacity require the strictest safeguards. Stringent guidelines for revival and maintenance, along with clear enforcement mechanisms, must be prioritized. Institutions need to be empowered to hold violators accountable. Activities within these highly protected zones should be tightly controlled. Commercial activities should be strictly discouraged or even banned. Other zones can have regulations proportionate to their condition. These efforts must be complemented by water-harvesting practices and a shift in land-use philosophy. Cropping patterns that guzzle water unsustainably should be replaced with ones that consider local topography and water availability. This requires a change in mindset towards water management, which may be achieved by envisioning a new approach to the management of inland water systems by the use of the Protected Area mechanisms. The value of this approach lies in its proven effectiveness over four decades, necessitating only adjustments to broaden its reach. In a country as expansive as India, established methods offer reliable tools, needing only minor adaptations to enhance their application and efficacy.

Additionally, discharging toxic wastes into the water bodies demands immediate attention. Sewerage and industrial wastewater from small-scale industries must be required to comply with effluent treatment technologies that allow them to incorporate wastewater circularity in

environment." *Mongabay-India*, May 26, 2021.

[41] *Supra* note 198 at 34.

[42] Ministry of Environment, Forest and Climate Change. "Sustainable Sand Mining Management Guidelines, 2016." *Environmental Clearance*, MoEFCC, *available at* http://environmentclearance.nic.in/writereaddata/SandMiningManagementGuidelines201G. pdf. (Visited on November 9, 2023).

their business model and thus may prove to be extremely rewarding. So, governmental support in novel installations through pilot programmes is expected to yield benefits. Likewise, human interventions that pose threats to the water biome is required to be regulated through legal instruments provided under a protected area regime. In that regard, caution must be exercised to allow the least possible restrictions on the indigenous community and native people depending upon the associated ecosystem services of such water channels. To enable equity, governmental agencies ought to facilitate a purposeful engagement of all stakeholders to devise a fruitful and enduring system. Under its water bill, India has trained attention to many considerations crucial for a robust water system that recognises citizens' right to water, reaffirming Indian waters as a shared resource and heritage. Enforcing the water bill with allied actions is a potent step toward climate resilience amid a climate crisis.

VI.

Conclusion

The right to clean water is read as a cardinal facet of the right to live, aligning with the constitutional morality envisaged by the constitutional framers. Yet, given the state of our internal waters network, we must concede our inability to secure citizens' fundamental rights. Recognising rivers, glaciers, and mountains as living entities or conferring legal personhood to these inanimate objects has not generated desired outcomes. Challenges to the implementation and consequences of such legal recognition have admittedly uncovered the glaring bridge in related jurisprudence of granting legal identity to a natural inanimate entity that draws from nature. Several challenges regarding the right to sue and be sued or enter into a contract bring forth questions, the answers to which remain a mystery. In this light, a possible route is adopting a protected system for inland rivers, lakes and floodplains integrated with river basin management in conjunction with the Water Bill of 2016 to ensure scientific inland water management by deploying sound ecological techniques devised to control and improve the health of our dying waters.

'KHAFD': VICTIMIZATION IN THE NAME OF PURITY

Dr Ankita Kumar Gupta*

Abstract

Khafd is Female genital mutilation which is done to little girls aged around 5 years in the name of cultural practice for attainment of 'Taharat' that is 'Purity'. Generally, it is believed by some religious denominations that cutting 'that part' of the genitalia which is capable of giving any voluptuous pleasures to a women will restrain her from going on the forbidden path and in return will make her achieve 'taharat' or 'purity'. It is done to little girls by older women and has devastating effects on them mentally and physically. It is a long-standing custom to remove a girl's external genitalia entirely or partially for non-medical reasons. It is one of the most horrible examples of gender-based abuse against young girls, who frequently don't understand what their bodies are doing. FGM is a widespread issue that is primarily carried out by religious groups like Islam, Christianity, and Judaism. Although it is performed throughout India, its main locations are in Gujarat, Maharashtra, and some areas of Kerela. The author's main objective is to increase awareness of the notion, elaborate on the negative effects of female genital mutilation, and stress the need for a legislative prohibition on the practice because the lack of knowledge surrounding it is making the problem even worse. As there is no explicit rule in India that forbids FGM the foreign nationals travel to India for FGM at a significantly reduced cost and without any legal ramifications. Consequently, In India, FGC is practiced in secret, violating the basic human rights of young girls and women in general.

Keywords – Khafd, Female Genital Mutilation, Bohra Community, Gender Equality, Victims of Purity, Taharat

I.

Concept of Female Genital Mutilation

Several distinct traditional procedures that include the cutting of female genitalia are collectively referred to as female genital mutilation or female circumcision. The word "FGM" is only used to refer to ceremonial procedures in which sexual organs are really cut and removed. A religious leader, a community elder, or a medical professional with insufficient experience performs the surgery with a blade or shard of glass. The most extreme type of FGM, infibulation, is cutting off the labia and stitching the vulva together, a procedure that

could endanger the victim's life. The operation is not done for medical purposes and has no proven health advantages.[1] Most frequently, young girls between the ages of one and fifteen are the targets.[2] FGM is a violation of girls' and women's fundamental human rights in all forms, as it raises their risk of health issues and violates their rights to security and dignity.

Gender equality and the empowerment of all women and girls are the goals of Sustainable Development Goal (SDG) 5. It promotes gender equality as a human right and argues that achieving all targets by 2030 requires achieving gender equality. Goal 5.3.2 of the Sustainable Development Agenda is to end all harmful practices, including female genital mutilation (FGM), a deeply ingrained cultural practice also known as female circumcision or female genital cutting.[3]

While the exact number of girls and women who have undergone FGM remains unknown, at least 200 million have in 31 countries where prevalence data is representative of the area. There is evidence that FGM occurs in a number of countries, including Saudi Arabia, the United Arab Emirates, Colombia, India, Malaysia, Oman, and Saudi Arabia.[4] The types of FGM that are carried out, the conditions under which they occur, and the numbers of affected population groups vary greatly. FGM is a global concern because it is practiced by certain people in about 92 countries (Figure 1.1). Around the world, numerous nonprofit organizations like *"Equality Now"*[5] have launched campaigns to outlaw the practice of FGM.

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[1] "Female genital mutilation," *available at*: https://www.who.int/health-topics/female-genital-mutilation (last visited February 28, 2024).

[2] "What is female genital mutilation? | UNICEF,"*available at*: https://www.unicef.org/protection/female-genital-mutilation (last visited February 28, 2024).

[3] "SDG Goal 5: Gender Equality," *UNICEF DATAavailable at*: https://data.unicef.org/sdgs/goal-5-gender-equality/ (last visited February 28, 2024).

[4] "Female Genital Mutilation (FGM) Statistics," *UNICEF DATAavailable at*: https://data.unicef.org/topic/child-protection/female-genital-mutilation/ (last visited February 28, 2024).

[5] "Who We Are," *Equality Nowavailable at*: https://equalitynow.org/who-we-are/ (last visited February 28, 2024).

Figure 1.1

The United Nations General Assembly declared February 6, 2023, to be the 12th anniversary of the *"International Day of Zero Tolerance for Female Genital Mutilation,"* in accordance with the 2030 Agenda for Sustainable Development.[6] Governments, Member States, activists, development partners, civil society organizations, and other pertinent stakeholders can use the day to reaffirm their commitments, spread awareness, and stress that female genital mutilation is a harmful practice that is unacceptable and violates the fundamental human rights of women and girls.

II.

Historical and Cultural Background

Although the precise history of female genital mutilation is unknown, it was mostly carried out in Islam, Christianity, and Judaism. Egypt is where FGM was first widely practiced. In one of her pieces, Marry Knight explains a Greek hieroglyph that depicts a lady being circumcised and was carved on a coffin dating back to approximately 163 BCE.[7] FGM originated in Egypt, where it was first documented in circumcised mummies. The practice gradually spread to other parts of the Red Sea Coast through Arab traders and the African slave trade.

Islam is one of the major religions that condenses FGM. The teachings of the Prophet Muhammad form the foundation of Islamic civilization. There are primarily two schools of thought within it: Sunni and Shia. There are also Hanafi, Maliki, Shaffie, and Hanbali

[6] "International Day of Zero Tolerance for Female Genital Mutilation 2023 | UNICEF,"*available at*: https://www.unicef.org/documents/international-day-zero-tolerance-female-genital-mutilation-2023 (last visited February 28, 2024).
[7] Mary Knight, "Curing Cut or Ritual Mutilation?: Some Remarks on the Practice of Female and Male Circumcision in Graeco-Roman Egypt," 92 *Isis* 317–38 (2001).

subsects within the Sunni school of thought. In Hanafi and Maliki, female genital mutilation is recommended, whereas male circumcision is mandated. Both sexes must be circumcised in Shaffie, but Hanbali requires circumcision just for men and views it as honourable for women. There are three more subsects under the Shia school of thought: Ismaili, Bohra, and Asharis. Both the Ismaili and the Bohra subsects demand that females undergo FGM.[8] Since FGM is practiced in almost every Islamic subsect—some consider it required, some recommend it, and still others view it as honourable—it cannot be associated with any one subsect of Islam.

The Fatimid Dynasty, often known as the Fatimid Caliphate, ruled over the Ismaili Shia people from the tenth to the eleventh century AD. It extended from *"North Africa to the Red Sea's eastern coast".* In the tenth century, Egypt served as the political and religious hub of the Fatimid Dynasty.[9] At that time, female genital circumcision was widespread in Egypt. Fatimid missionaries arrived in India in the eleventh century from Yemen and Egypt. They made an effort to convert many people, particularly Hindus at the time, to the Ismaili Fatimid faith. The Bohra headquarters were relocated from Yemen to Gujarat, India in 1500.[10]

Currently, the majority of Bohras reside in India and Pakistan, with the remainder being spread throughout the *"Middle East, Africa, Australia, Europe, Asia, and North America"*. Since FGM was a common practice in Egypt and Yemen, where the Bohras may trace their religious roots, it also became ingrained in their cultural history. Even though the Quran does not specifically support FGM, Islamic societies nevertheless mostly adhere to this tradition.

III.

Societal Inclinations Toward Female Genital Mutilation

The practice of FGM occurs for a variety of societal reasons. FGM still occurs because it is a symptom of a bigger issue—namely, the mistreatment of women in the majority of these communities. In many societies, women are viewed as inferior human beings who should only be used to provide affection and care for their husbands and children. The societies where Female Genital Mutilation is practiced women are not free to experience any voluptuous pleasure. Her body is trained and used for driving sexual pleasure only by men and it is believed that if she is reframed from experiencing voluptuous desire she shall always

[8] R. Ghadially, "All for 'Izzat'" *Newsletter (Women's Global Network on Reproductive Rights)* 7–8 (1992).
[9] Shainool Jiwa, "The Fatimid Caliphate: Diversity of Traditions," 2017.
[10] "The globalised Dawoodi Bohras of Bombay - Gateway House," *available at*: https://www.gatewayhouse.in/globalised-dawoodi-bohra-bombay/ (last visited February 28, 2024).

remain as an object which can be used by her husband and also that she will never ever fall in love with anyone else.

Institutions of religious education are designed to teach cultural values; nevertheless, these knowledge hubs also end up being the worst places for propaganda and false information to spread. Additionally, there is a dearth of female education in many regions, and many people despise those who educate their family's women. The primary offenders of this practice, whether they are from India, the Middle East, or North Africa, all think that FGM is a necessary process to guarantee that the honour of a woman or her family is preserved. Knives and hot coal are used in the procedure of FGM in many African countries. This incredibly agonizing procedure, which is considered to be the formal initiation of the lady into maturity, ought not be disapproved of. A lot of African nations actively encourage clitoral hood removal since they consider it to be a sign of promiscuity.[11]

Many women voluntarily endure FGM because they think it will make them more powerful. Because they are young, they are frequently tricked into believing that this is their responsibility and that they must carry out this process in order to maintain their traditions. In many cases, women choose to engage in this practice voluntarily in order to guarantee that they would be accepted as mature individuals who meet the patriarchal standards of femininity in the community. Since 2011, there has been much discussion in India and around the world about female khatna, or the Dawoodi Bohra community's practice of female genital mutilation. Community activists have contested the "secret" tradition, and it has been discussed on television channels, in parliament, and before international courts of law. As a result, an increasing number of Bohra women have taken the lead in challenging ostensibly Western notions of autonomy, equality, and modernity in order to openly defend their right to khatna. To uphold the tradition, many Bohra women actively engage in patriarchal standards rather than aggressively reject them.[12]

[11] Ganiyu O Shakirat et al., “An Overview of Female Genital Mutilation in Africa: Are the Women Beneficiaries or Victims?,” 12 *Cureus* e10250.

[12] “‘we are not like them’: reinventing modernity within tradition in the debates on female khatna / female genital cutting in India - Reetika Revathy Subramanian, 2023,” *available at*: https://journals.sagepub.com/doi/full/10.1177/01417789231206047 (last visited April 15, 2024).

IV.

Female Genital Mutilation in India

Certain Islamic communities in India, primarily the Dawoodi Bohra sect, practice female genital mutilation. In India, FGM, often referred to as Khatna or Khafdz, is a procedure in which the clitoris, or clitoral hood, is removed. Usually, older women in the community or untrained midwives perform this practice. The goal is to get it over with before puberty sets in for females between the ages of six and ten.[13] It is typically performed with a knife or other blade. Because the women performing these treatments are typically unskilled, girls frequently wind up with undesired illnesses, endure excruciating agony, or just bleed for days. Regretfully, no laws have been passed in India to prohibit it.

The Dawoodi Bohra community, which has members in Gujarat, Maharashtra, Rajasthan, Madhya Pradesh, and Kerala, practises FGM often. Because of the recent[14] legal actions against FGM among the Bohras in Australia and the USA, India is currently turning into a hotspot for FGM.

India is quickly becoming as the centre for FGM procedures. Due to the absence of any laws specifically pertaining to FGM, it is simpler for foreign nationals to do FGM in India before returning home, where it is prohibited. The practice of Bohra families who live outside of India traveling to India for a vacation and to perform the Khafd ceremony is known as *"Vacation Cutting."* Therefore, Khafd, also known as FGM, is a well-kept secret that is performed in secret in India.

It was brought to light in 2018 when Delhi-based lawyer Sunita Tiwari filed a Public Interest Litigation (PIL)[15] in the Supreme Court under Article 32 to outlaw the practice of FGM on the grounds that it violated Article 21 of the Indian Constitution. Though, it was argued that *"the practice has been wrongly called Female Genital Mutilation (FGM). The practice is almost 1400 years old and commands issued by the competent religious authorities have made the said practice an integral part of the religion of the Dawoodi Bohra Community and a protection in that regard is sought under Article 26 of the Constitution".* The bench comprising Justice D.Y. Chandrachud, Justice A.M. Khanwilkar and Chief Justice Dipak

[13] "FGM: India's Dark Secret," *Hindustantimes.comavailable at*: https://www.hindustantimes.com/static/fgm-indias-dark-secret/index.html (last visited February 28, 2024).
[14] Juliet Rogers, "Remnants of mutilation in anti-FGM law in Australia: a reply to 'The prosecution of Dawoodi Bohra women' by Richard Shweder," 12 *Global Discourse* 145–57 (2022).
[15] "Sunita Tiwari vs Union Of India on 24 September, 2018,"*available at*: https://indiankanoon.org/doc/181206322/ (last visited March 5, 2024).

Misra observed that *"It is violative of Article 21 of the Constitution to put the female child to the trauma of FGM, as the Centre told the court that it supports the petitioner's plea that it is a crime punishable under the Indian Penal Code and the Protection of Children from Sexual Offences Act (POCSO Act)"*.[16] But because the case involves a larger question regarding the scope and ambit of the *"Right to Physical"* Integrity under *"Article 21 of the Indian Constitution"* and the *"Right to Religious Freedom"* under *"Articles 25 and 26 of the Indian Constitution"*, A larger bench of nine justices has now been constituted to consider the petition.. The procedure, which has no scientific backing but is required by religion, is still being done on young girls without their consent as of March 2024, and the Supreme Court of India is now considering the plea.

V.

Constitutional Validity of FGM in India

While considering FGM just through the lens of the Indian Constitution, it is clear that FGM violates women's *"rights to privacy and physical autonomy"*. According to the ruling in K. S. Puttaswamy v. Union of India[17], the right to privacy is an essential freedom and falls under the ambit of fundamental rights. The Supreme Court observed that *"The best decisions on how life should be lived are entrusted to the individual… The duty of the state is to safeguard the ability to take decisions – the autonomy of the individual – and not to dictate those decisions."* Justice Chandrachud made observations on an array of privacy-related issues, and decisional autonomy is one of them. A person's ability to make choices about their intimate connections and sexual or reproductive activity is a reflection of their decisional privacy.

Furthermore, following the ruling in Navtej Singh Johar v. Union of India[18], it can be concluded that decisional autonomy would entail exercising the right to privacy in opposition to the arbitrary nature of *"legislative"* or *"popular morality",* if that *"right pertains to the recognition of an individual's sovereignty over her body"*.

Khatna is a practice that essentially is non-consensual and deprives women of her ability to make her own decisions about whether or not to have a highly crucial treatment. Notably,

[16] From our online archive, "Female genital mutilation violative of constitutional rights: Supreme Court" *The New Indian Express*, 2018 *available at*: https://www.newindianexpress.com/nation/2018/Jul/30/female-genital-mutilation-violative-of-constitutional-rights-supreme-court-1850779.html (last visited February 28, 2024).
[17] "Justice K.S.Puttaswamy(Retd) vs Union Of India on 26 September, 2018,"*available at*: https://indiankanoon.org/doc/127517806/ (last visited March 4, 2024).
[18] "Navtej Singh Johar vs Union Of India Ministry Of Law And ... on 6 September, 2018,"*available at*: https://indiankanoon.org/doc/168671544/ (last visited March 4, 2024).

issues related to the vagina or urology may arise from the surgery. These complications are sometimes accompanied by psychological trauma, such as post-traumatic stress disorder, or the loss of trust from the loved one who made the decision.

The severity of the situation was brought to light by a project[19] *"The Clitoral Hood - A Contested Site"*, which was conducted and submitted by WeSpeakOut & Nari Samata Manch. The percentage of responders in the sample who underwent FMG was about 75%. Additionally, it revealed that nearly one-third of the women with "khafz" claimed it had a detrimental impact on their sexual lives. After their operation, many FGM victims felt anxious, tense, depressed, and low in self-esteem. Thus, it is reasonable to claim that the khatna method violates the constitutionally guaranteed rights to privacy and bodily integrity found in Article 21.

VI.

Legal Regulations in India for FGM

It is noteworthy that given the lack of comprehensive legislation to address the issue, FGM is still widely practiced in the nation and that India has advised Guinea, Mali, and the Gambia to enact laws outlawing the practice.[20]

FGM may be punished under *"Sections 324 and 326 of the Indian Penal Code"*[21], which, respectively, outlaw *"voluntarily causing hurt"* and *"voluntarily causing grievous hurt"*, in the current legal system. Also, Penetrative sexual assault on any kid is prohibited by law under *"Section 3 of the Protection of Children from Sexual Offenses Act, 2012 (POCSO)"*[22]. Hence, any object inserted into a young girl's vagina would be considered penetrating sexual assault which is prohibited under the POCSO Act.

However, as these legal measures have not shown to be enough in stopping the practice, a thorough approach to FGM must be developed. FGM has already been made illegal in a number of African and European nations by adding provisions against it to their current penal codes or by-passing specific legislation. It is now essential that the Indian government fight to eradicate the heinous practice of FGM in order to uphold its social, moral, and

[19] A Project et al., "The Clitoral Hood A Contested Site."
[20] Amrita Madhukalya, DHNS, "Criminalise female genital mutilation: India told at UNHCR review" *Deccan Herald available at*: https://www.deccanherald.com/india/criminalise-female-genital-mutilation-india-told-at-unhcr-review-1162695.html (last visited March 4, 2024).
[21] "Indian Penal Code, 1860," (1860).
[22] "Protection of Children from Sexual Offences Act, 2012," (2012).

international obligations. Inspiration might be obtained from the Netherlands, where decentralizing eradication efforts and fostering cooperation between various stakeholders, including medical professionals, educators, law enforcement, immigrant organizations, and reporting points for child abuse, has shown to be successful.[23] Through the work of local child protection communities, which served to identify girls at risk of FGM and place them in adolescent clubs, over 175,000 girls in Burkina Faso were spared from FGM in 2019. This demonstrates how crucial community involvement is to this procedure.[24]

The need of the hour is to create laws in India that can clearly describe FGM (according to the WHO criteria), include sanctions against physicians who perform female circumcision, and impose legal requirements on the provision of medical, educational, and psychosocial care for the victims.

VII.

Conclusion

History, tradition, culture, and religion all have an impact on a community's customs and beliefs. Similar to this, the *"practice of FGM, or Khafd, in Islamic subsects"* stems from a historical amalgam of Islamic law and the Fatimid Dynasty. In the eyes of the Islamic community, the campaign against FGM is a war against a long-standing custom that is perceived as a "Religious Identity." However, it should not be acceptable for a practice to continue in the name of religion when it infringes upon fundamental human rights, such as the right to life or the right to bodily integrity.

As an example, the law forbade the *"practice of "Sati" in the Hindu community"* back in 1987 when "The Commission of Sati (Prevention) Act" was passed. The fact that FGM is carried out in secret and that community members are not permitted to discuss it is the reason for the dearth of information on the practice. However, this should not be interpreted as proof that the practice is innocuous or not carried out. FGM is a further manifestation of the patriarchal idea that women's identity and independence should be controlled. Through FGM, women's sexual conduct and reproduction were intended to be under control.

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[23] "Good practices in combating female genital mutilation | European Institute for Gender Equality," 2024 *available at*: https://eige.europa.eu/publications-resources/publications/good-practices-combating-female-genital-mutilation?language_content_entity=en (last visited March 4, 2024).

[24] "A Decade of Action to Achieve Gender Equality: The UNICEF Approach to the Elimination of Female Genital Mutilation", October 2020, *available at:* https://www.unicef.org/media/88751/file/FGM-Factsheet-2020.pdf (last visited March 4, 2024)

A national prohibition on FGM combined with state-level initiatives to end it could be a viable first step toward its abolition. The Bohra population is primarily concentrated in a few states, like Gujarat, Maharashtra, Rajasthan, Kerala, Telangana, and so on; these states may be particularly targeted. It would be similarly important to develop trustworthy connections with community leaders and members through dialogue and consideration, given the fact that the practice has intimate ties to culture. Members must be informed about the negative effects and repercussions of the practice, in particular present and prospective mothers. The best people to involve in this are teachers, civil society organizations, and community health professionals who can act as change agents, such as Anganwadi and ASHA (Accredited Social Health Activist) workers; ideally, these workers will be from the practicing community itself.

BOOK REVIEW

THE RHYTHM OF LAW, Raman Mittal, Satyam Books Pvt. Ltd., New Delhi, 2023, Pg. [XIV]+204.

1. Poetry

Poetry is a prominent example of how human beings make use of words to explore and understand life. Like other forms of writing we value, it lends shape and meaning to our experiences and helps us to move confidently in the world we know and then to step beyond it.[1] In the early 19th century, Percy Bysshe Shelley's Defense of Poetry rested on poetry's ability to train the imagination; poetry, he wrote, "awakens and enlarges the mind itself."[2] People often express their thoughts having spiritual bearings through art, rhymes being a popular one. The following excerpt from Robert Duncan's poem 'Poetry a Natural Thing' presents this view beautifully:

Neither our vices nor our virtues
further the poem. "They came up
and died
just like they do every year
on the rocks."
The poem
feeds upon thought, feeling, impulse,
to breed itself,
a spiritual urgency at the dark ladders leaping.[3]

2. The Spiritual Element in Law

Our lives, individual and social, are permeated with laws, social, natural, and positive. Our minds and bodies are born encoded with laws made and learnt by nature. When we face difficulties in our lives, we think to find a solution. But before that, we find someone to blame for those difficulties, and law bears the brunt. Be it our minds, family culture, social

[1] See, *Teaching Poetry in the Secondary School: An HMI View*, Department for Education and Science, (1987).

[2] Nadia Colburn, "The Purpose of Poetry" (2022); available at: https://nadiacolburn.com/the-purpose-of-poetry/.

[3] Robert Duncan, "Poetry, a Natural Thing" from *The Opening of the Field*, (New Directions Publishing Corporation, 1960).

norms, workplace rules, legislations, everything is a part of law and law is a part of everything. This comes down to an abstract conclusion that life is law.

3. Law and Poetry

Since, law is so intrinsic to nature (which includes human lives too), the philosophy of law cannot be detached from the philosophy of nature. And when nature enters into the picture, poetry is inevitable. Philosophers for a very long time have been writing poems about abstract concepts related to law like justice. Although, not an organized one, it can be identified as a fragmented movement which has not been studied much. One of the reasons for this can be consideration of law and literature as totally different disciplines. In the popular compilation of poems on law, "Poetry of the Law"[4], poems as old as dating the era of Shakespeare are collected. Also, the authors of many poems are not professionally related to the legal field, which demonstrates that law is not an isolated discipline. Thus, law, as mostly understood only in the context of legal studies is a narrow idea.

In India, many people write poems on law and issues like justice and rights. One of such poets is the very famous *veer ras* poet, Hari Om Panwar, who also happened to be a professor of law. The book under review 'The Rhythm of Law' by Prof. Raman Mittal seems to be a very persevering effort to sustain this movement of writing poetry on law. It compiles one hundred poems varying across different themes. Unlike poems written by other poets, all the poems uncover the philosophy of law. His poems demonstrate such high intimacy of law with life that I felt "The Rhythm of Life" as an equally appropriate title for the book. Interestingly, the poet explores the philosophy of law by interpreting works of great men. As evident from the preface, some poems are based on the works of champions of philosophy such as Gautam Buddh, Aesop, Lao Tzu, Krishnamurti, Kahlil Gibran and Osho.

What must be the ultimate goal of an adjudicatory system? To provide justice or to find the truth? Navigating through all the procedures ensuring fairness, truth sometimes seem to fade away. But, do we seek the truth? And is truth monochromatic? The poet dedicates a segment of the book to truth and traverses through many aspects of it. The first segment of the book explores interesting questions. It is igniting of course to read about truth in a book of law as truth, in practice, is more often forsaken in the adjudicatory system. Anyway, in the

[4] David Kader and Michael Stanford (eds.), *Poetry of the Law: From Chaucer to the Present*, (University of Iowa Press, 1st edition, 2010).

ideal situation, truth must be pursued. Conscious of the challenges in stating truth in a manner which is universally acceptable for all times to come, the poet writes:

Before the ink dries
Away the truth flies
The written word is dead
Truth cannot be said

Considering it in its simplest sense, persuasion of truthfulness by individuals in their lives yields another virtue i.e., duty. Truthfulness brings out acceptance which ultimately gives birth to a sense of duty. The duties of citizens count as a contribution to a flourishing society and nation as a whole.[5] By including the poems on duties in this book of *poetry on law*, the poet seems to escalate the important dialogue on duties of the citizens of a country. The poet beautifully exhibits the human nature of holding others accountable by interpreting the popular Buddhist story in his poem 'Ten Travellers and a Monk'. The poet relates the story to the failure of our duties:

To count himself, each one had omitted
This blunder all had committed
…
About others' duties we always fret
And our own we conveniently forget
To our own when we stop being blind
Bliss then we are sure to find

In Bharat, some laws have an element of duty inscribed in them which creates a legal obligation on individuals. The Constitution of India also incorporates a part which comprises of eleven duties that every citizen ought to abide by. Although, these duties cannot be enforced legally upon the citizens even by the courts, we are required to perform our duties furnished by the Constitution. By featuring ancient stories in the poems, the poet has tried to illustrate the duty-centric to right-centric shift of the Bharatiya society. The poet narrates a story where two men reach out to king Parikshit to decide over the ownership of gold found under the land which had already been sold, exemplifying highly moralistic and duty-centric characters.

[5] See, https://blog.mygov.in/.

As stated earlier, many great people have written poetry on law in the past. And the most favourite subjects of all such poems have been morality, justice, rights, etc. A major part of this book also covers such themes along with the ideas of life. The new contributions this book provides in this poetry movement are the themes particularly of intellectual property and environment. Blackstone in his 'The Lawyer's Farewell to his Muse' recites about the nature of law and its implications on an individual's life. Blackstone's poem, however, does not delve into the details of law, but emits the emotions of the poet about the sufferings.

About environment the author provides a general perspective of sustainability and environment protection. The academic expertise of the poet is visible in his poems on intellectual property which are quite specific and detailed. The poet very well explains the requirements of various intellectual property tools through his poem 'The Loop of New'. He does not limit to the traditional Intellectual Property tools and writes about other emerging tools too. Recently, think tanks have started deliberating upon trade secret laws after the Law Commission of India has recommended for a special legislation to protect trade secrets.[6] The poet writes on trade secret and economic espionage in two of his poems. In 'The Loop of New', poet mentions the requirement to claim a trade secret:

You need to keep it out of the view
But under promise you may share it too
And if someone steals, make sure to sue

And in 'The Brittle Assets', the poet informs about the relation between patent and trade secret laws. Along with this, the poet also hints about the practice of mix usage of these laws by the businesses to gain maximum benefit.

The poet also brings into light the unexplored intellectual properties—Graffiti and Street Art. Graffiti is not traditionally considered as a professional art let alone its protection as intellectual property. Dr. Enrico Bonadio has lately spearheaded the academic movement concerning the intellectual property protection of graffities. Graffities and Street Art have been very popularly used methods of revolution and public expressions. In the poem 'Hello! I

[6] Law Commission of India, "Trade Secrets and Economic Espionage" 22nd Report, (Report No. 289, 2024).

am Graffiti', the poet writes on behalf of graffiti to convince the readers for recognizing it as an art. In an emotional tone, the graffiti says:

In public opinions I play a part
A debate I want to start
A message I wish to impart
Though I am an unrecognized art
But I still may have a heart

4. Accompanying Illustrations

The book under review exhibits talent of another dimension. The book features eight aesthetic illustrations contributed by a father-daughter duo. The illustrations drawn by Harpreet Singh and Ichcha have not only enhanced the beauty, but have also given a meaning to different themes covered in the book. In other words, these illustrations can be seen as interpretation of the work of one artist in another form of art. The illustration of the first segment shows multiple objects along with their reflections in water. If carefully observed, the up and down placement of three objects conforms to the universal law of reflection. The depiction of human heart along with heavenly bodies of the universe together with their multiple reflections forms a complex artistic rendition of the subject matter of the segment, i.e. truth. This gives an idea that a fact can have multiple interpretations according to the situations in which it is observed. The cover page depicts keys of a piano in the guise of law books. In the reviewer's opinion, it seems to be most appropriate and meaningful illustration to present the title 'The Rhythm of Law'.

5. Conclusion

The poet has made an impressive effort to put the complex issues of philosophy of law in the most intelligible form. The poet has adopted a very simple style of writing and has cohered all the poems by rhyming. By writing one hundred number of poems, the poet has done an appreciable task of sustaining the movement of poetry on law and reviving the great thought of presence of law in all aspects of life and nature. Although, the poet being a legal scholar could have written some poems featuring the practices of legal arena but he has adhered to the philosophical aspect of law.

In conclusion, the poems carry deep lessons of jurisprudence, philosophy of life and society, and spirituality in the form of beautiful rhymes. This book can be of help to people of young generations to have a clement view of philosophy and particularly jurisprudence. Also, this book will be of great amusement to laymen, jurists, and lawyers who can relate the realities of the legal system to the philosophy of law rhythmically expounded in this book.

Satyarth Kuhad*

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BOOK REVIEW

Disability - A Journey from Welfare to Right, V.K Ahuja and Dr. Neha (eds.), Satyam Law International, 2024, Pg. 409.

Every human being possesses certain basic and fundamental human rights from the moment mankind exists. International and national legal systems have been duty bound to guarantee, recognise and protect every human right. However, a special attention is required for those who belong to disadvantaged sections of the society. In this regard, the legal system has incorporated special laws, schemes, conventions at the national and international level. The recognition and protection of Disability rights is one of the most important rights in this segment of disadvantaged section of the society. The United Nations through the Convention on Rights of Persons with Disability has set a goal to make sure that people with disabilities can enjoy all the basic freedoms and human rights that everyone has, and to make sure that their inherent dignity is respected. All people who, due to a combination of factors, are unable to fully and effectively participate in society on an equal basis due to a long-term impairment in physical, mental, intellectual, or sensory functioning are considered to have a disability.

The present book titled as Disability - A Journey from Welfare to Right has subtly discussed and touched upon various issues and critical thinking over specially abled people from the lens of various contributors through 29 chapters. This book delves deeply into a variety of subjects, drawing on the knowledge of prominent legal scholars, academicians, practitioners, research scholars and activists. These chapters broadly consist of various concerns, socio-legal issues and challenges associated with disabled people as well as new avenues and progressive thoughts that empowers them through new perspectives towards life. These contributors have extensively touched upon various social, economical, legislative and judicial aspects that affect directly or indirectly to the life of disabled people. The chapters have extensively covered various range of topics such as the effects of National Education Policy 2020 on inclusive education for people with disabilities, particularly in the North-East region; disability rights movements; employment rights; mental health law; intellectual property rights; empowerment in sports; access to justice; the intersectionality of disability and gender identity; and sexual and reproductive rights for women with disabilities. It also discusses disability inclusive disaster management.

The present chapters on a variety of subjects have urged that the claims, interests,

rights desired by disabled communities are entitled to the same opportunities, facilities and benefits as other human beings. They are equally contributing to the better society and nation building process. Access to all rights and freedoms in the globe, free from disability-based discrimination, is a fundamental human right. The State is thus obligated to take affirmative action to guarantee that disabled people are actually able to exercise those rights. It is crucial to ensure that people with disabilities have access to all general human rights guarantees and to create tools that can help clarify and provide more specific context for those guarantees. People with disabilities have always been an inherent part of society, and it is only fair that they have the same human rights as everyone else.

There are few exceptional chapters which have done extensive empirical research work, thorough critical analysis in an interdisciplinary manner that marks great contributions in the academic domain of disability rights and their welfare. In the area of right to higher education of persons with disabilities wherein the contributor has shared his thoughts with in-depth empirical and doctrinal research towards persons with disabilities. Despite the aforementioned constitutional, historical, political and statutory framework that recognizes the rights of the disabled as fundamental human rights grounded in dignity, there has still been a struggle for complete protection of their basic fundamental and human rights. In order to guarantee that these people can lead decent lives, this book has contributed to raise awareness about their rights.

This book is also a good source of literature with contemporary topics such as impact and influence of artificial intelligence (AI) especially in the field of right to work, mental health issues which are unnoticed and very necessary to be highlighted. Advancement in technology along with insertion of AI has immensely transformed human lives. The disabled people need special attention to achieve a fair and equitable society, disability rights are of the utmost importance. People with disabilities have had their rights and dignity protected and upheld thanks to the efforts of groups, organizations, and the legal community working together to change policies and practices. In compliance with international and national human rights standards, it is the duty of various stakeholders to guarantee that all actions pertaining to the exercise of legal capacity make sure to provide effective protections to avoid abuse. Protective measures should be in place to make sure that actions regarding legal capacity are done in a way that respects the person's rights, desires, and interests. They should also be free from bias and conflicts of interest, compared to the person's poor and challenging situation, applied for the shortest period possible, and reviewed regularly by an

impartial and competent authority.

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The editors of this book have laid strong and rich literature to meticulously think about and inculcate a deep realisation about contemporary disability concerns and legal gaps and how it can be evolved in upcoming years. Hence, Not only does this book shed light on a previously unexplored area of academic discussion, but it also helps to close the gap between theoretical concepts and real-world applications, as well as government policy and actual implementation.

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BOOK REVIEW

Human Rights During the COVID-19 Pandemic: The South Asian Experience, M. Ehteshamul Bari and Uday Shankar (eds.), Springer, 2024, Pg.197.

The COVID-19 pandemic has undoubtedly been one of the most challenging global crises of our time, with far-reaching consequences that extend beyond the realm of public health. In their edited volume "Human Rights During the COVID-19 Pandemic: The South Asian Experience,"[1] M. Ehteshamul Bari[2] and Uday Shankar[3] delve into the complex interplay between the pandemic response and human rights in the South Asian region. This comprehensive and thought-provoking book offers a critical examination of how emergency powers were exercised by governments to tackle the pandemic, and the resulting impact on fundamental rights and socio-economic well-being.

In this gripping anthology, editors invite readers to explore the tumultuous landscape of human rights amidst one of the greatest global crises of our time. As the pandemic swept across the globe, South Asian nations grappled with the dual challenge of safeguarding public health while upholding fundamental rights, often leading to contentious government actions and widespread violations. This thought-provoking collection unfolds in three compelling parts: it begins by examining the executive responses and the urgent need for institutional reforms, revealing how historical patterns of governance resurfaced during the crisis. The narrative then delves into the alarming impacts on freedom of expression and the right to health, highlighting the chilling effects of media censorship and systemic inequalities faced by marginalized communities. Finally, it confronts the socio-economic fallout experienced by vulnerable populations, such as migrant workers, questioning their rights and citizenship status in a time of unprecedented upheaval. With contributions from a diverse array of scholars, this book not only sheds light on the urgent human rights issues that emerged during the pandemic but also serves as a clarion call for accountability and reform in South Asia.

The book is divided into three parts, each exploring a different aspect of the pandemic's effect on human rights in South Asia. Part I focuses on the executive response to the COVID-19 emergency, highlighting the need for institutional reforms to protect rights.

[1] Available here https://www.amazon.in/Human-Rights-During-COVID-19-Pandemic-ebook/dp/B0CTHQW817; https://link.springer.com/book/10.1007/978-981-97-1480-3#toc

[2] M. Ehteshamul Bari is a senior lecturer of Law and the Deputy Head (Research) at Thomas More Law School in Australian Catholic University, Melbourne, VIC, Australia.

[3] Uday Shankar is an Associate Professor of Law at Rajiv Gandhi School of Intellectual Property Law, Indian Institute of Technology Kharagpur, West Bengal, India.

Chapter 1 of Human Rights During the COVID-19 Pandemic by M. Ehteshamul Bari and Uday Shankar provides an in-depth overview of the impact of the COVID-19 pandemic on human rights in South Asia. The chapter outlines the fundamental principles of human rights and discusses how constitutional frameworks generally protect these rights. It highlights the tension between maintaining public health and upholding individual freedoms during emergencies. The chapter critiques South Asian governments' responses to the pandemic, noting their reliance on colonial-era laws rather than modern, comprehensive legislation. It argues that these measures often led to severe infringements on civil, political, and socio-economic rights without adequate support systems. The authors emphasize the need for institutional reforms and enhanced safeguards to prevent abuses of emergency powers.[4] The chapter sets the stage for a detailed examination of the legal and human rights implications of pandemic responses in subsequent parts of the book.

M. Ehteshamul Bari's chapter provides an overview of the South Asian experience, drawing parallels to past emergencies and underscoring the familiar pattern of rights violations. This chapter and the excerpt both examine how governments in South Asia, particularly India, Pakistan, and Bangladesh, utilized the COVID-19 pandemic to restrict human rights.[5] In India, the government imposed a nationwide lockdown and other measures, disproportionately affecting Muslims and suppressing dissent. In Pakistan, the government targeted critics with tactics like enforced disappearances and restricted freedoms. Bangladesh's government relied on notifications to impose restrictions and used the pandemic to silence dissent through violence and intimidation. While India's Supreme Court has historically defended human rights, it has been more deferential during emergencies.[6] Pakistan's Supreme Court showed some willingness to uphold rights, while Bangladesh's judiciary seemed less effective. This chapter emphasizes the need for clear legal frameworks and strong judiciaries to prevent human rights abuses during public health crises.

[4] This sentence highlights a crucial argument within the book: the need for better safeguards to prevent the misuse of emergency powers, a recurring concern throughout the volume. For further discussion on this topic, see chapters by Pritam Dey and Manwendra Kumar Tiwari, which focus on the role of parliament and national human rights commissions, respectively, in ensuring accountability during emergencies.

[5] The specific ways in which these restrictions manifested are discussed in detail in the chapters by M. Ehteshamul Bari and Safia Naz, Abhinav K. Shukla and Mayank Shrivastava, and Rajesh Kumar, which examine limitations on press freedom, freedom of speech, and the right to health, respectively.

[6] This observation raises concerns about the effectiveness of judicial safeguards during crises. The chapter by Pritam Dey provides a detailed analysis of parliamentary oversight in India during the pandemic, highlighting the limited checks on executive power and the need for stronger accountability mechanisms.

Pritam Dey's[7] analysis of India's parliamentary oversight during the pandemic paints a bleak picture of an "absentee parliament," raising concerns about the lack of checks and balances on executive power. This chapter examines how the Indian Parliament's oversight of the executive branch during the COVID-19 pandemic was inadequate. Despite existing mechanisms like Departmentally Related Standing Committees (DRSCs) and the Committee on Subordinate Legislation, the government relied on broad existing laws and bypassed normal parliamentary procedures. Committees lacked the power to veto legislation, and sunset clauses were absent. The pandemic highlighted pre-existing weaknesses in the system, such as lack of power for committees to disallow legislation and absence of sunset clauses. As a result, the Parliament failed to adequately monitor the government's use of emergency powers. The chapter argues that India's parliamentary oversight mechanisms need strengthening through measures like more active committees, a disallowance mechanism, and sunset clauses to prevent similar issues in future crises.

The chapters by Manwendra Kumar Tiwari[8] and Simi Mehta[9] emphasize the importance of national human rights commissions and civil society in safeguarding rights during emergencies, respectively. The fourth chapter by Manwendra Kumar Tiwari examines the performance of the National Human Rights Commission of India (NHRCI) and other South Asian National Human Rights Commissions (NHRIs) during the COVID-19 pandemic. Despite issuing advisories on various human rights concerns, the NHRCI's response was limited in addressing the specific needs of vulnerable groups, such as migrant workers. This highlights the limitations of its power and the need for reforms to ensure a more effective human rights response in future crises. Key points include the debate on cultural relativism vs. universalism in human rights, the state-centric nature of NHRIs, the increased vulnerability of marginalized groups during the pandemic, and the legal frameworks used to justify restrictions on rights. The chapter criticizes the NHRCI for not issuing an advisory specifically addressing the right of migrant workers to return home during the first wave lockdown.[10] Additionally, the chapter discusses the challenges faced by NHRIs in South

[7] Pritam Dey is a Researcher at Thomas More Law School, Australian Catholic University, Fitzroy, Australia.
[8] Manwendra Kumar Tiwari is an Associate professor at Dharmashastra National Law University, Jabalpur, India.
[9] Simi Mehta is the CEO and Editorial Director of Impact and Policy Research Institute (IMPRI) New Delhi. Her PhD is in American Studies from the School of International Studies, Jawaharlal Nehru University. Simi does research in International History and Politics, International Relations and Foreign Policy.
[10] The plight of migrant workers during the pandemic is a recurring theme in the book, highlighting the vulnerability of this group and the inadequacy of existing protections. For a detailed analysis of this issue in the Indian context, see Deepak Kumar Srivastava and Balwinder Kaur's chapter.

Asia, such as limited independence, state-centrism, and lack of resources. The pandemic exacerbated existing human rights issues, particularly for marginalized groups. Governments' responses often had negative consequences for human rights. NHRIs in South Asia played varying roles, with some being more proactive than others. Strengthening their independence, resources, and capacity is essential for their effectiveness in future crises.[11]

The chapter by Simi Mehta examines the role of Civil Society Organizations (CSOs) during the COVID-19 pandemic. Despite facing challenges like resource constraints and government restrictions, CSOs played a vital role in complementing government efforts by providing essential services and raising awareness. Effective collaboration between CSOs and governments is crucial for successful crisis response. The chapter highlights the importance of transparency, strong partnerships, and government support for CSOs to be effective in future crises.

Part II delves into the adverse impact of the pandemic response on fundamental rights, particularly freedom of expression and press freedom. M. Ehteshamul Bari and Safia Naz's chapter examines the troubling trend of criminalizing media reporting on government pandemic response in India, Pakistan, and Bangladesh. The governments of India, Pakistan, and Bangladesh severely restricted press freedom during the COVID-19 pandemic. Despite constitutional protections, journalists who criticized government responses were targeted.[12] In India, journalists faced arrest and harassment for reporting on shortages of oxygen and other failures. Pakistan's government used vague "disinformation" laws to silence dissent. In Bangladesh, the Digital Security Act was used to persecute journalists who dared to criticize the government's handling of the pandemic. One journalist even died in custody. These actions undermined democratic principles and accountability, as a free press is essential for a healthy democracy.

[11] This echoes a central theme within the book – that existing institutional frameworks are often inadequate to protect human rights during emergencies. See, for instance, the discussion on the limitations of NHRIs in Manwendra Kumar Tiwari's chapter and the analysis of inadequate parliamentary oversight in Pritam Dey's chapter. The book consistently advocates for strengthening these institutions to ensure better protection of human rights in future crises.

[12] This underscores the gap between legal protections for human rights and their actual implementation during the pandemic. A similar discrepancy is observed in Deepak Kumar Srivastava and Balwinder Kaur's chapter on the plight of migrant workers, where despite existing laws, enforcement remained weak, leaving this vulnerable group unprotected.

Abhinav K. Shukla[13] and Mayank Shrivastava's[14] contribution explores the complex balance between protecting free speech and curbing disinformation, questioning whether South Asian nations struck the right chord. The COVID-19 pandemic presented significant challenges to free speech and expression in South Asian nations. While these countries have constitutional protections for freedom of speech, they also face the need to balance this right with curbing the spread of misinformation. Some governments used the pandemic as an opportunity to restrict dissent, harass journalists, and limit online speech. This highlights the delicate balance between protecting public health and upholding democratic values.[15]

Rajesh Kumar's chapter on the right to health during the pandemic provides a sobering South Asian perspective, highlighting the stark inequalities and challenges faced by the region's healthcare systems. The COVID-19 pandemic highlighted the importance of the right to health, which includes access to healthcare, hygiene, and a healthy environment. In South Asian countries, the legal framework and government responses to the pandemic varied. India, Bhutan, and Nepal each faced unique challenges in ensuring the right to health, despite constitutional protections or directive principles. India struggled with infrastructure and unequal access, while Bhutan's preparedness and Nepal's government challenges affected their responses. Overall, the pandemic underscored the need for strong healthcare systems and legal frameworks to guarantee the right to health in the future.

Part III delves into the adverse impact of the pandemic response on socio-economic rights. Deepak Kumar Srivastava[16] and Balwinder Kaur's[17] chapter on the plight of Indian migrant workers during the pandemic raises crucial questions about citizenship and state responsibility. The chapter discusses the plight of migrant workers in India during the COVID-19 pandemic. The lockdown exposed their vulnerability as they lacked jobs, housing, and transportation. While India has laws protecting migrant workers' rights, enforcement is often lacking. The pandemic revealed a lack of cooperation between the central and state governments in addressing the needs of these workers. This chapter

[13] Abhinav K. Shukla is an Assistant Professor of Law at Hidayatullah National Law University, Raipur.
[14] Mayank Shrivastava is an Assistant Professor of Law at Hidayatullah National Law University, Raipur.
[15] This tension between public health measures and individual rights is a recurring theme throughout the book. Rajesh Kumar's chapter, for example, explores how the right to health was impacted by pandemic responses in various South Asian countries. His analysis reveals that while certain measures were necessary to safeguard public health, they often came at the expense of individual freedoms and access to essential services.
[16] Deepak Kumar Srivastava is an Associate Professor, Hidayatullah National Law University, Raipur.
[17] Balwinder Kaur is an Associate Professor of Law, B R Ambedkar National Law University, Sonipat.

highlights the importance of protecting migrant workers' rights and ensuring their well-being, especially during crises.

Anurag Deep's[18] chapter on the right to health as the "Cinderella among fundamental rights" offers valuable lessons from the COVID-19 experience. The right to health, though essential, isn't explicitly recognized as a fundamental right in India's constitution. While Article 21 guarantees the right to life and personal liberty, courts have interpreted this to include aspects of healthcare.[19] The COVID-19 pandemic highlighted the shortcomings of the healthcare system and led to some Supreme Court pronouncements on health rights. However, these decisions may not have strong legal weight due to a lack of proper deliberation.[20] There is a need for a clearer legal framework around the right to health, especially for workers in hazardous industries, which would ensure access to basic healthcare services at a minimal cost in both public and private sectors while considering the financial burden on healthcare providers.[21]

Lima Aktar's[22] analysis of Bangladesh's socio-economic rights landscape during the pandemic underscores the fragility of these rights. The Bangladeshi Constitution guarantees social rights like healthcare and education, but these rights aren't directly enforceable in court (non-justiciable). The government is expected to implement them gradually (progressive realization), prioritizing collective well-being over individual rights. During the COVID-19 pandemic, this collectivist approach weakened individual access to healthcare. People struggled to afford treatment or get tested, especially for non-COVID illnesses. This

[18] At the time of the writing of this book, Prof. (Dr.) Anurag Deep was a Professor at the Indian Law Institute in New Delhi, India. Recently he has joined Faculty of Law, University of Delhi as a Professor.
[19] Anurag Deep's chapter delves deeper into this interpretation of Article 21, arguing that the right to health, though not explicitly mentioned, has been recognised as an integral part of the right to life. However, he criticises the lack of a clear and comprehensive legal framework for the right to health in India, leading to inconsistencies and challenges in its implementation.
[20] This critique of the Supreme Court's pronouncements on health rights during the pandemic underscores the need for a more robust and clearly defined legal framework for the right to health. Anurag Deep argues that a dedicated right to health, enshrined in the Constitution, would provide stronger legal backing and ensure greater accountability in the provision of healthcare services.
[21] This call for a more comprehensive right to health resonates with Rajesh Kumar's analysis of the right to health during the pandemic. He emphasizes the need for strong healthcare systems and legal frameworks that guarantee access to quality healthcare for all, particularly for vulnerable populations who are disproportionately affected during health emergencies.
[22] Lima Aktar, the author of Chapter 11, is a faculty member in the Faculty of Law at Jahangirnagar University in Dhaka, Bangladesh.

highlights the limitations of a collectivist approach to social rights during crises, even in countries with economic growth.[23]

Kanij Fatima's[24] contribution examines the socio-economic rights landscape during the pandemic in Pakistan and Sri Lanka. The COVID-19 pandemic severely impacted socio-economic rights in both Pakistan and Sri Lanka.[25] Lockdowns and restrictions caused widespread unemployment, especially among vulnerable groups like women, children, and informal workers. The healthcare systems in both countries faced challenges, including inadequate infrastructure, personnel, and supplies. Limited access to essential services, such as education and healthcare, affected marginalized groups. While both governments implemented measures to address these challenges, such as social protection programs and stimulus packages, the effectiveness and reach of these initiatives remain debatable. The pandemic exposed vulnerabilities in the social and economic fabric of both countries, highlighting the urgent need for stronger social safety nets, improved healthcare access, and better protection for women and children.

One of the book's strengths lies in its multidisciplinary approach, drawing insights from law, political science, sociology, and public health. The authors skillfully weave together empirical data, legal analysis, and real-world examples to paint a comprehensive picture of the human rights challenges faced by South Asian nations during the pandemic. The book's focus on the South Asian region is particularly valuable, as it sheds light on a part of the world that has often been overlooked in global discussions on human rights and pandemic response.

[23] A contrasting perspective on socio-economic rights during the pandemic is provided in Kanij Fatima's chapter, which examines the experiences of Pakistan and Sri Lanka. Despite different constitutional frameworks and approaches to social welfare, both countries faced significant challenges in upholding socio-economic rights during the crisis. This suggests that broader systemic factors beyond a collectivist or individualist approach may be at play.

[24] Kanij Fatima is a faculty member (Lecturer) at the Thomas More Law School at Australian Catholic University in Melbourne, Australia.

[25] The specific challenges faced by Pakistan and Sri Lanka are examined in Kanij Fatima's chapter. While the constitutional frameworks and approaches to social welfare in these countries differ from Bangladesh (as discussed in Lima Aktar's chapter), the pandemic's detrimental impact on socio-economic rights reveals common vulnerabilities across South Asia.

However, the book is not without its limitations. While the authors provide a thorough analysis of the problems, they could have delved deeper into potential solutions and the way forward. Additionally, the book's focus on the South Asian region, while a strength, may limit its appeal to a broader international audience. Despite these minor shortcomings, "Human Rights During the COVID-19 Pandemic: The South Asian Experience" is a must-read for anyone

interested in understanding the complex interplay between human rights and pandemic response. The book's legal language is accessible and engaging, making it suitable for a wide range of readers, from academics and policymakers to human rights advocates and the general public. The editors have assembled a talented team of contributors who have produced a cohesive and compelling volume that sheds light on a critical issue of our time.

Therefore, "Human Rights During the COVID-19 Pandemic: The South Asian Experience" is a timely and important contribution to the ongoing discourse on human rights and global health emergencies. By focusing on the South Asian region, the book offers a unique perspective on the challenges faced by developing nations in balancing pandemic response with the protection of fundamental rights. The book's multidisciplinary approach and engaging writing style make it a valuable resource for anyone seeking to understand the complex and often overlooked human rights implications of the COVID-19 pandemic.

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