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Reassessing the
Environmental Rule of
Law in India:
Bridging Gaps for Survival

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FOREWORD BY JUSTICE D.Y. CHANDRACHUD
Judge, Supreme Court of India

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“REASSESSING THE ENVIRONMENTAL RULE OF LAW IN

INDIA: BRIDGING GAPS FOR SURVIVAL”

2021

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AIM OF THE JOURNAL

Conventional discourse on environmental law has presented much superficial and ‘ivory tower’ analysis, detached from the realities of environmental governance, mostly centred on judiciary’s engagement with environmental law. With dismal enforcement of environmental laws across all jurisdictions,¹ and the environment’s condition deteriorating by the day, there has emerged a need to look into the governing rule of law, which acts as a *grundnorm* for enviro-legal regulation across nations. As a concept coined by the United Nations Environment Program (“UNEP”) in 2013,² the environmental rule of law (“EROL”) offers a framework for addressing the gap between environmental laws on the books and in practice. EROL is a key to achieving the Sustainable Development Goals.

In June 2020, India ranked only 168th out of 180 countries assessed by the Environmental Performance Index.³ Despite a plethora of environmental laws and regulations in India, the situation still remains grip. Presently, India categorizes as a water stressed country in terms of the average per capita water availability and this availability is expected to reduce to such an extent by 2050 which will be close to the official water scarcity threshold.⁴ This evidently hints at the lack of grassroots enforcement⁵ of the water legislations in India. Further, despite provisions regulating chemical contamination of water exists under the Environment (Protection) Act, 1986, cancer-causing chemicals permeate our soils, entering our food-chain and eventually making their way into our bodies.⁶ Considering a micro-level example of the National Capital Region (“NCR”), the residents of the nation’s capital were discovered to have lost ten years of their expected lifespan owing to air pollution,⁷ despite the

¹ United Nations Environment Program, *GEO5: Global Environment Outlook. Nairobi, Kenya (2012)*, available at https://wedocs.unep.org/bitstream/handle/20.500.11822/8021/GEO5_report_full_en.pdf?sequence=5&isAllowed=y, last seen on 26/05/21.

² United Nations Environment Program, *Decisions adopted by the Governing Council/Global Ministerial Environment Forum at its first universal session: Decision 27/9: Advancing Justice, Governance and Law for Environmental Sustainability (2013)*, available at http://www.unep.org/delc/Portals/24151/Documents/Decisions27-9Advancing_Justice_Governance&Law.pdf, last seen on 26/05/2021.

³ *2020 EPI Results: Results Overview*, Environmental Performance Index, available at <https://epi.yale.edu/epi-results/2020/component/epi>, last seen on 26/05/21.

⁴ NITI Aayog, *Composite Water Management Index (2019)*, available at <https://www.niti.gov.in/sites/default/files/2019-08/CWMI-2.0-latest.pdf>, last seen on 24/05/2021.

⁵ Ibid.

⁶ Medhavi Arora, *Arsenic- Polluted water linked to Cancer in India*, CNN (01/05/2017), available at <https://edition.cnn.com/2017/04/28/health/arsenic-water-pollution-cancer-india/index.html>, last seen on 24/05/2021.

⁷ Michael Greenstone, *Air Quality Life Index (EPIC): India Fact Sheet (2019)*, available at https://aqli.epic.uchicago.edu/wp-content/uploads/2019/03/EPIC_IndiaFactSheet_V06-nobleeds.pdf, last seen on 24/05/2021.

existence of the Environment Pollution (Prevention & Control) Authority, a body dedicated to tackling pollution within the NCR. Thus, it becomes unequivocally clear that a contaminated environment no longer remains an *'ivory tower'* concern; its injury to human life is now as exactly discernible as a wound by gunshot.⁸

As our laws rot away to oblivion, regulatory failures are becoming increasingly more apparent.⁹ The nation, with respect to several aspects of the environment, is approaching, or has already crossed, the ecological threshold. The enforcement gap within India's environmental regulation is as startling as it is concerning. Sub-par implementation of environmental laws in India has been observed since long, and has even been specifically noted as a phenomenon in judicial record.¹⁰ Behind the robust facade of comprehensive laws, there lies a decrepit fundament- a weak EROL, which, if not remedied, will inevitably prove to be our enviro-legal framework's hamartia. In view of this, to provide a more incisive, inclusive and, most importantly, practical insight into the state of EROL in India, the Editorial Board invited articles from eminent jurists and academicians in the field to provide a rich body of research and ideas.

This Issue, on the theme titled, "**Reassessing the Environmental Rule of Law in India: Bridging Gaps for Survival**", consists of ten articles dealing with different areas of EROL including a review of wildlife protection laws aiming at solutions to improve the existing protection arrangements, limitations of the Polluter Pays Principle and how the National Green Tribunal has been inconsistent in its application of the principle, and the rights of rivers and the ground level difficulties in enforcing such rights along with issues relating to inter-state water disputes. Further, few other areas of EROL that have been discussed in this Issue include climate inclusive agriculture, ship recycling laws, environment impact assessment notifications and their practical problems, and the powers of the National Green Tribunal and their efficacy thereto.

We thank all the contributors for their submissions to this Issue and their continued cooperation with the Editorial Board throughout the whole process. We hope that such ideas can explore the areas hitherto unexplored within India's environmental laws, with the overarching objective of rendering suggestions that can lead to a more robust EROL instead of

⁸ Kalyan Ray, *When death lurks in the air and water: Laws not enforced; Public Health in Peril*, Deccan Herald (19/01/2020), <https://www.deccanherald.com/specials/insight/when-death-lurks-in-the-air-and-water-laws-not-enforced-public-health-in-peril-796023.html>, last seen on 24/05/2021.

⁹ Srinivas G. Roopi, *Vizag Gas Leak: A clear failure of regulatory mechanism, say Expert and Environmentalists*, Economic Times (09/05/2020), <https://government.economictimes.indiatimes.com/news/technology/vizag-gas-leak-a-clear-failure-of-regulatory-mechanism-say-expert-and-environmentalists/75641310>, last seen on 24/05/2021.

¹⁰ M.C. Mehta v. Union of India, (2006) 3 SCC 399.

offering superficial corrections to an environmental-legal structure, the
fundament of which is flawed. With this aim and objective, we present to
you Issue 2 of Volume 7 of the Journal.

FOREWORD

Dr. Justice D Y Chandrachud

INTRODUCTION

1. As a Supreme Court judge, it is my mandate to interpret the law and to ensure that it is smoothly implemented. One of the guiding lights in this endeavor, a fundamental principle upon which the massive edifice of our legal structure is based, is the idea of the rule of law (“**RoL**”). The notion that we are a government of laws and not of men is as simple as it is profound. As Federalist Paper No. 51 famously observed, if men were angels, there would be no need for laws.¹ On one level, then, the rule of law is premised upon the recognition of human fallibility and the need for a higher authority to serve as a disciplining framework to regulate human conduct.

2. Home to 1.2 billion people brimming with hopes and aspirations, India continually finds herself faced with the pressing need to expand the footprint of development. Equally, as a country with a robust constitutional tradition, she needs to ensure that such development takes place in a fashion compatible with the existing Constitutional and legal framework. It is here that the environmental rule of law (“**ERoL**”) serves as a helpful framework of analysis and disciplining force. In this foreword, I begin by sketching out the key fundamentals of the RoL. Thereafter, I will delineate the core attributes of the ERoL that emerge from judicial treatment and academic engagement with the topic. I will conclude by offering my thoughts on the key learnings that this concept offers for courts, in the cases that they will confront on environmental protection in the future.

WHAT IS THE RULE OF LAW?

3. In order for us to understand what the ERoL is, we must first understand what we mean by the RoL itself. In order to do this, we must distinguish the rule of law from the rule by law. As I noted in my judgment in *HP Bus Stand Management and Development Authority*², the rule of law comprehends the setting up of a legal regime with clearly defined rules and principles of even application. At the core of the rule of law lies the idea of protecting liberty, equality and freedom. The law has to have substantive

¹ Alexander Hamilton/ James Madison, Federalist No. 51, The Structure of the Government Must Furnish the Proper Checks and Balances Between the Different Departments, February, 1788.

² *Himachal Pradesh Bus Stand Management and Development Authority versus The Central Empowered Committee and Ors.*, AIR 2021 SC 657.

underpinnings. Specifically, it has to be consistent with constitutional norms. The RoL, therefore, comprises: “*substantive principles, processual guarantees and institutional safeguards that are designed to ensure responsive, accountable and sensitive governance.*”³ As Timothy Endicott, a leading scholar on the subject states, the RoL requires that laws must be: “[o]pen, clear, coherent, prospective, and stable.”⁴

4. Rule by the law, on the other hand, pursues less ambitious objectives. It focuses on having in place a set of rules, irrespective of their quality or substantive character. As Professor Paul Craig points out, this is for the following reason:

We may all agree that laws should be just, that their content should be morally sound and that rights should be protected within society. The problem is that if the rule of law is taken to encompass the necessity for 'good laws' in this sense then the concept ceases to have an independent function. There is a wealth of literature devoted to the discussion of the meaning of a just society, the nature of the rights which should subsist therein, and the appropriate boundaries of governmental action. Political theory has tackled questions such as these from time immemorial. To bring these issues within the rubric of the rule of law would therefore rob this concept of an independent function. Laws would be condemned or upheld as being in conformity with, or contrary to, the rule of law when the condemnation or praise would simply be reflective of attachment to a particular conception of rights, democracy or the just society.⁵

Differently stated, a value-laden conception of the RoL, under this school of thought, would make the concept an empty vessel into which one can pour their views as to what constitutes morally and ethically appropriate laws.

5. This difference between the formal and substantive conceptions of the RoL is brought into sharp focus when we consider differences in how the RoL is understood by two scholars of great repute, Joseph Raz and Ronald Dworkin. According to Raz, it is not the function of the RoL to embody values such as justice and dignity – a task that is best left to other theoretical constructs. In his conception, the RoL embodies two basic values: [a] people should be ruled by and obey the law and [b] the law should be capable of a guiding behavior.⁶ This conception needs to be

³ Id at para 46.

⁴ Timothy Endicott, ‘The Impossibility of the Rule of Law’ (1999) 9 Oxford Journal of Legal Studies 1

⁵ Paul Craig, ‘The Rule of Law’ Select Committee on Constitution (6th Report 2007), Appendix 5.

⁶ Joseph Raz, ‘The Rule of Law and its Virtue’ in Joseph Raz, *The Authority of Law: Essays on Law and Morality* (2nd edition, OUP 2009).

juxtaposed with the one offered by Dworkin. According to him, the RoL embodies moral and political rights.⁷

6. Lord Bingham, a renowned British judge, interpreted the rule of law as encompassing eight principles. These were the following: (i) accessibility, (ii) law not discretion, (iii) equality, (iv) exercise of power, (v) human rights, (vi) dispute resolution, (vii) fair trial, and (viii) compliance with international law.⁸ In its definition of the rule of law, the UN focuses on the following 3 elements. First, the equal application of laws to all. Second, that such laws must be: “*publicly promulgated, equally enforced and independently adjudicated*”. And, third, that they be consistent with international human rights norms and standards. The definition also refers to the following important elements: supremacy of law, equality before the law, accountability to the law, fairness in the application of the law, separation of powers, participation in decision-making, legal certainty, avoidance of arbitrariness and procedural and legal transparency.⁹

7. In a recent judgment, the Supreme Court defined the rule of law in the following terms:

Rule of Law inter alia posits four universal tenets. It is a system of laws, institutions, norms and community commitment that envisages-accountability of Government and private actors alike under the law; The laws must be just, clear, publicized and stable and applied evenly, protect fundamental rights and human rights; Open Government-meaning thereby the processes by which the laws are enacted, administered and enforced are accessible, fair and efficient; and Accessible justice-to include timely delivery of justice by competent, ethical, and independent representations and neutrals who are accessible, have adequate resources and mirror the traits of the communities they serve.¹⁰

WHAT IS THE EROL?

8. The term EROL was coined by the Governing Council of the United Nations Environment Programme (“**UNEP**”) in 2013, in decision 27/9¹¹. It recognized how environmental law violations can threaten the principle of sustainable development and took note of the fashion in which the EROL can counteract this trend. The values that the decision foregrounded were: ‘information disclosure, public participation,

⁷ “The Rule of Law’ Stanford Encyclopaedia of Philosophy, available at <<https://plato.stanford.edu/entries/rule-of-law/>>, last seen on 28 March 2021. Also see Dhvani Mehta, the Environmental Rule of Law in India, 2017, University of Oxford, p. 56 and 57 [“Mehta Thesis”].

⁸ Tom Bingham, The rule of law [2011], Penguin UK.

⁹ Report of the Secretary-General: The rule of law and transitional justice in conflict and post-conflict societies (S/2004/616).

¹⁰ *Rajiv Suri v. Delhi Development Authority*, 2021 SCC OnLine SC 7, para 128.

¹¹ Decision 27/9: Advancing Justice, Governance and Law for Environmental Sustainability, UNEP/GC.27/17.

implementable and enforceable laws, and implementation and accountability mechanisms including coordination of roles.¹²

9. As a manifestation of the RoL, the ERoL shares its core attributes mentioned above. It does more than this, however. It encapsulates a set of conceptual, procedural and substantive tools to structure the discourse on environmental protection. It foregrounds a multi– disciplinary analysis of the nature and consequences of carbon footprints. It seeks to broaden the conversation to capture all actors impacted by “*environmental degradation, climate change and the destruction of habitats.*” It locates disparate principles of environmental governance, such as sustainable development, the polluter pays principle and the public trust doctrine within a holistic universe, a reflection of the inseparable and intertwined nature of our world.¹³

10. It recognizes that we are all in this together. By building on experiential learnings, the concept seeks to “*formulate principles which must become the building pillars of environmental regulation in the present and future.*” It focuses on open, accountable and transparent decision making on concerns of the environment, in a manner that is participative and inclusive.¹⁴

11. The ERoL also brings into sharp focus the wide chasm between the professed ideals of our laws and their actual implementation. Even as it is cognizant of the massive progress that has taken place over time in erecting a robust framework of environmental governance, it recognizes that the existence of this framework is necessary, but not sufficient.¹⁵

12. As I noted in my judgment in *Hanuman Laxman Aroskar*, environmental governance that is founded on the rule of law is grounded in our Constitution. Specifically, the health of the environment is key to preserving the right to life as a constitutionally recognized value under Article 21 of the Constitution. Proper structures for environmental decision making find expression in the guarantee against arbitrary action and the affirmative duty of fair treatment under Article 14 of the Constitution.¹⁶

13. In its first global report on the ERoL, the UNEP stated as follows:

If human society is to stay within the bounds of critical ecological thresholds, it is imperative that environmental laws are widely understood, respected, and enforced and the benefits of environmental protection are enjoyed by people and the planet. Environmental rule of law offers a framework for addressing the gap between environmental laws on the books and in practice and is key to achieving the Sustainable Development Goals...

¹² Mehta Thesis, supra note 7, p. 42.

¹³ Supra 2, para 47.

¹⁴ Ibid.

¹⁵ *Hanuman Laxman Aroskar v. Union of India* (2019) 15 SCC 401, para 143.

¹⁶ Id at para 156.

Successful implementation of environmental law depends on the ability to quickly and efficiently resolve environmental disputes and punish environmental violations. Providing environmental adjudicators and enforcers with the tools that allow them to respond to environmental matters flexibly, transparently, and meaningfully is a critical building block of environmental rule of law.¹⁷

14. In my judgment in *HP Bus Stand*, I also explained why the ERoL is such an important framework of analysis for judges. Specifically, before the concept was developed, while there was no dearth of environmental laws and regulations in India, what was found lacking was a set of overarching judicially recognized principles that could inform environmental adjudication in a manner that was stable, certain and predictable. This consolidated framework was necessary to fill normative gaps and provide a strong jurisprudential and conceptual foundation for the implementation and interpretation of existing environmental laws. I quoted Bruce Pardy, who describes the consequences of the absence of such a framework in the following terms: *“Instead of serving to protect citizens’ environmental welfare, an indeterminate environmental law facilitates a utilitarian calculus that allows diffuse interests to be placed aside when they are judged to be less valuable than competing considerations.”*¹⁸

15. There is another way in which the ERoL serves an important function. And that is in equipping judges with the ability to deal with fact situations in which the precise harm caused by the infraction of environmental law cannot be quantified. The ERoL does this by foregrounding the importance of judicial intervention to remedy an environmental law infraction, even when its precise harm remains unclear. In an article in the *Georgetown Environmental Law Review* (2020), Arnold Kreilhuber and Angela Kariuki explain the manner in which the environmental rule of law seeks to resolve this imbroglio:

One of the main distinctions between environmental rule of law and other areas of law is the need to make decisions to protect human health and the environment in the face of uncertainty and data gaps. Instead of being paralyzed into inaction, careful documentation of the state of knowledge and uncertainties allows the regulated community, stakeholders, and other institutions to more fully understand why certain decisions were made.¹⁹

16. In the light of these premises, we held that it was not possible for us to determine how many, if any, trees had been felled by the illegal construction of the hotel-cum-restaurant. Instead, we narrated, in

¹⁷ UNEP, 'Environmental Rule of Law First Global Report' (January 2019), pgs viii and 223.

¹⁸ Bruce Pardy, 'Towards an Environmental Rule of Law', 17 *Asia Pacific Journal of Environmental Law* 163 (2014).

¹⁹ Arnold Kreilhuber and Angela Kariuki, 'Environmental Rule of Law in the Context of Sustainable Development', 32 *Georgetown Environmental Law Review* 591 (2020).

painstaking detail, how the illegal construction had taken place, notwithstanding clear attempts to halt it. We also clearly noted the complicity of state authorities in the infraction of environmental law. In light of this evidence, we returned a finding that the ERoL had been breached.²⁰

17. We also tackled the indeterminacy of the concept in the following way. After recording clear evidence indicating infraction of the ERoL, we noted as follows: *“Whatever else the environmental rule of law may mean, it surely means that construction of this sort cannot receive our endorsement, no matter what its economic benefits may be. A lack of scientific certainty is no ground to imperil the environment.”*²¹

18. We advanced a reading of the ERoL that was based on its use in a negative sense. While its positive attributes remain unclear, we deployed the concept in a case that clearly exhibited features of the breach of its most fundamental tenets. Differently put, the point we were trying to make in the above excerpt was that a combination of robust judicial common sense, coupled with the experience of adjudication, are often sufficient to equip a judge to determine when the ERoL has been violated. It is in this way that this seemingly indeterminate and amorphous concept can be positively pressed into service in concrete cases and controversies.

19. In a consistent line of authority, the NGT has endorsed the principle of the ERoL. To illustrate, in *Doaba Paryavaran Samiti versus State of U.P. and Ors.*²², the NGT dealt with industrial or other pollution in Kali, Nadi Krishni and Hindon Rivers, resulting in death and diseases. The Tribunal closed the proceedings with the expectation that the state would take measures for the restoration of the ERoL. It outlined the measures to be taken in this regard, such as completing the interception and diversion of 113 untapped drains, the targeted STPs, with treated sewage utilization, appropriate treatment against recalcitrant industries, the maintenance of appropriate water equality in the aforesaid rivers and water supply to the relevant villages. In *In Re: Report received from State Level Monitoring Committee, Kerala, constituted by this Tribunal vide order dated 16.01.2019 in O.A. No. 606/2018*²³, concerned the disposal of solid waste management. The NGT noted its anguish with the non-implementation of its directions in the following terms:

Long stories of all round failure of the administration are poor substitute for good governance required to enforce environmental rule of law for protection of public health and the environment... Failure to uphold environmental rule of law is no

²⁰ Supra 2, para 53.

²¹ Ibid.

²² MANU/GT/0028/2021.

²³ MANU/GT/0041/2021.

different from maintaining law and order and protecting the citizens against crimes. [para 5]

In *Md. Hayath Udin versus Union of India and Ors.*²⁴, while dealing with an irrigation project to provide drinking water, the NGT noted that the EROL is not incompatible with development but is in fact a facet of it.

20. Editors and authors writing their articles for this volume need to be complimented for canvassing a diverse array of issues that implicate the EROL. For instance, Mrinalini Shinde's article makes two meaningful contributions. First, it provides a compelling account of the importance of reliance on comparative law in environmental adjudication. Second, it offers us an account of how different jurisdictions, with differing legal backgrounds and systems of government have tackled the ticklish issue of the legal personhood of rivers. Similarly, Keith Varghese and Shyama Kuriakose's article examines how far the NGT's orders in the Vizag gas leak case are consistent with the EROL. Further, Sujith Koonan and Harshita Singhal's article grapples with the challenges associated with the practical implementation of the polluter pays principle.

21. Let me close this foreword by sharing some concluding reflections on the EROL that emerge from the aforementioned analysis as well as my own engagement with the concept as a judge.

22. First, the judiciary has a vital role to play in upholding and applying the EROL. As Irene Villanueva Nemesio points out, this we must do "*by providing remedies to environmental harms and upholding constitutional rights to the environment.*"²⁵ As Mehta points out, the judiciary ought to decide cases on the environment that are rooted in the legislative text. Equally, it must be cognizant of the interdisciplinary and polycentric nature of environmental adjudication and must approach the task with a sense of restraint and modesty.²⁶

23. Second, the EROL has the power to facilitate the transition from environmental law in law books into law in action. By viewing the EROL as our North Star, we can ensure the effective implementation of the existing body of environmental law.

24. Third, the EROL offers us a comprehensive and holistic framework that contextualizes, gives meaning to and anchors the myriad principles of environmental law and governance that have emerged in recent decades. It serves as a unifying force that weaves them together.

²⁴ 2020(10) FLT855.

²⁵ Irene Villanueva Nemesio, *Strengthening Environmental Rule of Law: Enforcement, Combatting Corruption, and Encouraging Citizen Suits*, 27 *GEO. INT'L ENVTL. L. REV.* 321 (2015), at 325.

²⁶ *Supra* 7, Mehta Thesis, at p. 64.

25. Finally, concerns about the amorphous character of the ERoL are valid. However, that does not mean that the doctrine has no practical value. Instead, all that it means is that we must apply it in a well-considered, carefully thought-out way, in cases and controversies that we feel call for its application.

**Dr. Justice D Y Chandrachud,
Judge, Supreme Court of India**

TABLE OF CONTENTS

LONG ARTICLES

SAFEGUARDING WILDLIFE BEYOND PROTECTED AREAS IN INDIA: A REVIEW OF LAWS, POLICIES AND OTHER CONSERVATION TOOLS <i>Debadityo Sinha and Mridhu Tandon</i>	1
POLLUTER PAYS PRINCIPLE IN INDIA: ASSESSING CONCEPTUAL BOUNDARIES AND IMPLEMENTATION ISSUES <i>Harshita Singhal and Sujith Koonan</i>	33
EVOLVING A LEGAL FRAMEWORK FOR CLIMATE-INCLUSIVE AGRICULTURE: EXPLORING REGULATORY INSIGHTS FROM FOREIGN JURISDICTIONS <i>Vidya Vijayaraghavan</i>	51
LEGAL TRANSPLANTS AS SEEN IN THE COMPARATIVE ANALYSIS OF JUDICIAL DECISIONS ON THE ENVIRONMENTAL PERSONHOOD OF RIVERS <i>Mrinalini Shinde</i>	85
RIGHT TO INFORMATION AS AN ‘ENVIRONMENTAL’ RIGHT: TRENDS, ISSUES AND CHALLENGES IN INDIA <i>Nikita Pattajoshi</i>	109
FAILURE OF ENVIRONMENTAL REGULATORY BODIES AND EIA FRAMEWORK: ANALYSIS OF EXISTING CHALLENGES <i>Maneka Nair Sastharam</i>	128
VOICE TO THE RIVER: OBSERVATIONS ON LEGAL RIGHTS FOR RIVERS IN INDIA <i>Sayanangshu Modak</i>	148

SHORT ARTICLES

BEACHED WASTE AND WASTED BEACHES: A CRITICAL ANALYSIS OF THE NEW SHIP RECYCLING LAW IN INDIA

Meera Gopal.....168

FAT PROMISES AND LEAN PERFORMANCES: WHY IS ENVIRONMENTAL IMPACT ASSESSMENT UNDERPERFORMING IN INDIA?

Urmila Jha Thakur.....184

A CRITIQUE OF THE NGT'S RULINGS IN THE VIZAG GAS LEAK CASE VIS-À-VIS THE ENVIRONMENTAL RULE OF LAW CONCEPT

Keith Varghese and Shyama Kuriakose.....198

LONG ARTICLES

SAFEGUARDING WILDLIFE BEYOND PROTECTED AREAS IN INDIA: A REVIEW OF LAWS, POLICIES AND OTHER CONSERVATION TOOLS

**Debadityo Sinha & **Mridhu Tandon*

ABSTRACT

India, a country with only 2.4% of the world's land area, accounts for 7-8% of all recorded species, including over 45,000 species of plants and 91,000 species of animals. The wildlife in India is protected through protections granted to species as well as declaring an area as Protected Area (PA) under the Wildlife (Protection) Act, 1972 such as Wildlife Sanctuaries and National Parks. PAs are important tools to withstand the impacts of climate change and ensure long term conservation of natural resources providing food, clean water, shelter and income. However, they have their own limitations on account of their relatively small size and that the majority of wildlife habitats are now found outside the PAs. This accounts for the imperative need of according protection and identification of wildlife corridors and habitats outside the PAs. The article discusses the different forms of wildlife habitats and conservation areas found outside the PAs and how the existing laws and government actions lack in vigor and pose hurdles in effectively protecting forests and wildlife.

I. INTRODUCTION

India, a megadiverse country with only 2.4% of the world's land area, accounts for 7-8% of all recorded species, including over 45,000 species of plants and 91,000 species of animals.¹ The wildlife in India is protected through protections granted to species as well as declaring their habitats as National Parks and Wildlife Sanctuaries under the Wildlife (Protection) Act, 1972 (“WPA”). As of December 2019, India could manage to declare 903 Protected Areas (“PAs”) covering 5.02% of the geographic area,

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¹ *India*, IUCN, available at <https://www.iucn.org/asia/countries/india>, last seen on 25/03/2021.

which includes 101 National Parks, 553 Wildlife Sanctuaries, 86 Conservation Reserves and 163 Community Reserves.² PAs are important tools to withstand the impacts of climate change and ensure long term conservation of natural resources which provide food, clean water, shelter and income.³ A well-managed PA Network not only provides enhanced protection and management of wildlife habitats but also plays an important role in preventing the transmission of zoonotic diseases.⁴ Studies indicate that 60% of the Emerging Infectious Diseases (Covid19, HIV, Ebola etc) that affect humans are zoonotic and approximately 72% of them originate in wildlife and are increasing significantly over time.⁵ However, the role of PAs in conserving wildlife habitats has its own limitations and they presently exist as islands of wilderness areas in a mosaic of human settlements, infrastructures, industries, roads, agricultural lands and forests.

II. NEED OF CONSERVATION EFFORTS BEYOND PROTECTED AREAS

Wildlife experts have pointed out that administrative boundaries of several PAs do not necessarily overlap with ecological boundaries and many of the areas within the PA boundary may not have any direct conservation value.⁶

⁷ It is now a well-proven fact that a majority of the wildlife habitats are found outside of these PAs, especially the state-owned Reserve/Protected Forests declared under Indian Forest Act, 1927 (“**IFA**”).⁸ With scientific advancements in wildlife survey techniques such as camera trapping and DNA analysis, such forests are now considered no less important wildlife

² *Protected Areas of India*, ENVIS Centre on Wildlife and Protected Areas, available at http://wiienvs.nic.in/Database/Protected_Area_854.aspx, last seen on 25/03/2021.

³ J.A. McNeely, *The role of protected areas for conservation and sustainable use of plant genetic resources for food and agriculture*, Bioversity International, available at https://www.bioversityinternational.org/fileadmin/bioversity/publications/Web_version/62/ch07.htm, last seen on 25/03/2021.

⁴ J. Terraube & Á. F. Llamazares, *Strengthening protected areas to halt biodiversity loss and mitigate pandemic risks*, NCBI PMC, available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7525266/>, last seen on 25/03/2021.

⁵ K.E. Jones et. al., *Global trends in emerging infectious diseases*, NCBI PMC, available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5960580/>, last seen on 25/03/2021.

⁶ Ministry of Environment, Forest and Climate Change, Government of India, *India's National Wildlife Action Plan 2017-31*, available at https://wii.gov.in/images/images/documents/national_wildlife_action_plan/NWAP_Report_hi_Res_2017_31.pdf, last seen on 25/03/2021.

⁷ P.K. Mathur & P.R. Sinha, *Looking beyond Protected Area Networks: a Paradigm Shift in Approach for Biodiversity Conservation*, 10 *International Forestry Review* 305 (2008), available at <https://www.jstor.org/stable/43740344?seq=1>, last seen on 25/03/2021.

⁸ *Supra* 6.

habitat as compared to PAs. State owned forests outside PAs are known to support 36 endemic mammals of India.⁹ For instance, a significant population of the big carnivores such as Royal Bengal Tiger, Striped Hyena, Dhole, Sloth Bear, Grey Wolf, Golden Jackal are known to be found in areas outside the PAs in forests, shrublands and grasslands and use the same for their breeding and foraging activities.^{10 11} Wildlife experts and managers across the world now stress more on the importance of protecting the wildlife corridors and forest patches outside PAs which act as 'stepping stone habitat'-a habitat patch that facilitates movement between at least two other patches.^{12 13 14 15}

Another reason for the inadequacy of PAs in effectively conserving wildlife can also be attributed to their smaller size. Law enforcement agencies cannot force a wild animal possessing a special habitat requirement and home range to be restricted within the administrative boundaries of PA. Higher protection and better management of habitats within PAs have also resulted in many of the PAs exceeding their carrying capacities to accommodate any more wildlife population, eventually forcing the wild animals to disperse to other PAs and forests in search of suitable less crowded habitat. For example, the latest tiger census report¹⁶ indicates that

⁹ *Conservation Across Landscapes: India's Approaches to Biodiversity Governance*, Foundation for Ecological Security, available at <https://fes.org.in/studies/conservation-across-landscapes-india-approaches-to-biodiversity-governance.pdf>, last seen on 25/03/2021.

¹⁰ Ministry of Environment and Forestry, Government of India, *Status of Tigers Copredators & Prey in India 2018*, available at moef.gov.in/wp-content/uploads/2020/07/Tiger-Status-Report-2018-For-Web-compressed-compressed.pdf, last seen on 25/03/2021.

¹¹ *Melurs usursinus Sloth Bear Vulnerable*, IUCN, available at https://www.iucn.org/sites/dev/files/import/downloads/sloth_bear.pdf, last seen on 25/03/2021.

¹² S. Saura, Ö. Bodin & M.J. Fortin, *Stepping stones are crucial for species' long-distance dispersal and range expansion through habitat networks*, 51 *Journal of Applied Ecology* (2013), available at <https://besjournals.onlinelibrary.wiley.com/doi/10.1111/1365-2664.12179>, last seen on 25/03/2021.

¹³ N.E. Heller & E.S. Zavaleta, *Biodiversity management in the face of climate change: A review of 22 years of recommendations*, 142 *Biological Conservation* (2009), available at <https://www.sciencedirect.com/science/article/abs/pii/S000632070800387X>, last seen on 25/03/21; Meade Crosby, Joshua Tewksbury, Nick Haddad et al., *Ecological Connectivity for a Changing Climate*, 24 *Conservation Biology* (2010), available at https://www.researchgate.net/publication/47509070_Ecological_Connectivity_for_a_Changing_Climate, last seen on 25/03/2021.

¹⁴ D. Boscolo et al., *Importance of Interhabitat Gaps and Stepping-Stones for Lesser Woodcreepers (Xiphorhynchusfuscus) in the Atlantic Forest*, Departamento de Ecologia, available at ecologia.ib.usp.br/lepac/conservacao/Artigos/boscolo_inpress.pdf, last seen on 25/03/2021.

¹⁵ Supra 12.

¹⁶ Supra 10.

the present tiger population stands at 2,967 tigers which is 70% of the world population. While this is a significant achievement, the report also warns that 17 out of 50 tiger reserves are nearing their carrying capacity. In fact, nearly one-third of the country's tigers live outside protected areas. As carnivores spill out of protected areas, they will come in contact with human settlements, leading to an increase in human-wildlife conflicts¹⁷. As per Dr. Rajesh Gopal, Secretary, Global Tiger Forum, "*India's tiger carrying capacity is packed, and the National Tiger Conservation Authority (NTCA) needs to focus on better landscape management.*"¹⁸

The average mean size of PAs in India is approx. 270 sq.km. and approx. 31% of them are less than 10 sq.km. in size.¹⁹ Some of the PAs are even less than 1 sq. km. such as Mangalavanam Bird Sanctuary in Kerala- 0.03 sq.km.²⁰ With 22% of land under forest cover and just 5% of the land under PA network, a large tract of such wildlife habitats in India still falls under Reserve/Protected Forests. However, the connectivity with such adjoining habitats is increasingly being obstructed due to various land use and land cover changes driven by human activities. This poses a serious problem for the conservation of Indian wildlife as animals that have evolved over a large, continuous landscape find it difficult to adapt to the increasing levels

¹⁷ Express News Service, *Tamil Nadu's 17 reserves at or close to full tiger capacity*, The New Indian Express (29/07/2020), available at <https://www.newindianexpress.com/states/tamil-nadu/2020/jul/29/tamil-nadus-17-reserves-at-or-close-to-full-tiger-capacity-2176127.html>, last seen on 25/03/2021; *A Home for Tiger*, The New Indian Express (30/07/2020), available at <https://indianexpress.com/article/opinion/editorials/tiger-population-india-reserves-capacity-6529840/>, last seen on 25/03/2021.

¹⁸ Express News Service, *Here's why experts are worried about the rising tiger population*, The New Indian Express (29/01/19), available at <https://www.newindianexpress.com/nation/2019/jan/29/tiger-numbers-up-experts-worried-1931306.html>, last seen on 25/03/2021.

¹⁹ *India's Forests*, 108 (Jagdish Kishwan et al., 2007).

²⁰ *Wildlife Sanctuaries*, ENVIS Centre on Wildlife and Protected Areas, available at http://www.wienvic.nic.in/Database/wls_8230.aspx, last seen on 25/03/21.

of developmental pressure and human disturbances in areas outside the PAs.^{21 22 23}

Habitat loss and fragmentation of landscapes into smaller isolated patches are a major reason for the extinction of species worldwide.^{24 25 26} Such small and isolated patches of fragmented habitat endanger the faunal diversity as compared to larger and continuous fragments. Many of the species that originally inhabited large forested tracts will disappear from these isolated fragments.²⁷ Habitat loss and degradation is known to affect 89% of all threatened birds, 83% of mammals, and 91% of threatened plants globally.²⁸ There are also evidences that while some species can persist or thrive in fragmented landscapes, many species become more vulnerable because of their smaller populations,²⁹ more prone to over-exploitation (thereby increasing human-wildlife conflict)^{30 31} and their lower ability to adapt to rapid environmental change.^{32 33}

²¹ L. Tole, *Measurement and management of human-induced patterns of forest fragmentation: a case study*, 37 *Environment Management* (2007), available at <https://pubmed.ncbi.nlm.nih.gov/16583252/>, last seen on 25/03/21.

²² H. Olf & M.E. Ritchie, *Fragmented nature: consequences for biodiversity*, 25 *Journal of Landscape and Urban Planning* (2002), available at <https://research.rug.nl/en/publications/fragmented-nature-consequences-for-biodiversity>, last seen on 25/03/21.

²³ *Connectivity Conservation*, 29 (Kevin R. Cooks and M. Sanjayan, 14th ed., 2007).

²⁴ Michael R.W. Rands et al., *Biodiversity conservation: Challenges beyond 2010*, 329 (5997) *Science* 1298 (2010).

²⁵ Gary K. Meffe & Carl Ronald Carrol, *Principles of Conservation Biology* (2nd ed., 1997).

²⁶ Weidong, G. et al., *Estimating the consequences of habitat fragmentation on extinction risk in dynamic landscapes*, 17 *Landscape Ecology* 699 (2002); E.O. Wilson & R.H. MacArthur, *The Theory of Island Biogeography* (1967).

²⁷ L. Gibson et al., *Near-Complete Extinction of Native Small Mammal Fauna 25 Years After Forest Fragmentation*, 341 *Science* 1508-1510 (2013).

²⁸ *Species Extinction - The Facts*, IUCN Red List, available at https://www.iucn.org/sites/dev/files/import/downloads/species_extinction_05_2007.pdf, last seen on 25/03/2021.

²⁹ L. Cagnolo, M. Cabido & G. Valladeres, *Plant species richness in the Chaco Serrano Woodland from central Argentina: Ecological traits and habitat fragmentation effects*, 132(4) *Biological Conservation* 510–519 (2006), available at <https://doi.org/10.1016/j.biocon.2006.05.012>, last seen on 25/03/21.

³⁰ F Michalski. & C.A. Peres, *Anthropogenic determinants of primate and carnivore local extinctions in a fragmented forest landscape of southern Amazonia*, 124(3) *Biological Conservation* 383–396 (2005).

³¹ A.F. Bennett & D.A. Saunders, *Habitat fragmentation and landscape change*, 358 in *Conservation biology for all* (N.S. Sodhi & P.R. Ehrlich, 1st ed., 2010).

³² J.M.J. Travis, *Climate change and habitat destruction: A deadly anthropogenic cocktail*, 270(1514) *Proceedings of the Royal Society B: Biological Sciences* 467–473 (2003), available at <https://doi.org/10.1098/rspb.2002.2246>, last seen on 25/03/2021.

³³ Barry W. Brook, Navjot S. Sodhi & Corey J.A. Bradshaw., *Synergies among extinction drivers under global change*, 23(8) *Trends in Ecology and Evolution* 453–460 (2008), available at <https://doi.org/10.1016/j.tree.2008.03.011>, last seen on 25/03/2021.

Scientists are also worried about how wildlife would react to climate change induced events such as extreme weather events in the form of high temperatures, forest fires, exceptionally long drought and heavy rain falls.³⁴ There has been mass mortality of wildlife across the world owing to such extreme weather events such as the recent death of 23,000 Spectacled Flying Foxes in Australia in 2019 due to extreme heat waves wiping out one-third of its population.³⁵ The World Meteorological Organization has already declared the 2010-2020 as the warmest decade,³⁶ and another report indicates that 75% of Indian districts are under the influence of extreme weather events such as extreme droughts, floods, cyclones which are now becoming a regular phenomenon.³⁷ The capacity of wildlife to cope up with such impact of climate change induced weather events will depend greatly on their adaptability as well as their dispersal capacity for which ecosystems need to be healthy as well as sufficiently connected with neighboring habitats.

Thus, as stated by the World Bank's Staff Appraisal Report, "*PAs can be successful in realising their long-term conservation goals only when integrated into large-scale land-use planning activities and regulations at local and regional levels.*"³⁸ The National Wildlife Action Plan ("NWAP") 2002-2016 and 2017-31 suggested including 'Conservation Reserves' and 'Community Reserves' in human-dominated landscapes under the PA network and aimed for securing more of such stepping stone habitats outside PAs. The NWAP also emphasizes the identification of wildlife corridors and wildlife habitats

³⁴ *Impacts of Climate Change on Wildlife*, (R.E. Green, M. Harley, M. Spalding, C. Zockler, 2001).

³⁵ Jason Bittel, *A Heat Wave in Australia Killed 23,000 Spectacled Flying Foxes*, NRDC OnEarth (10/04/2019), available at <https://www.nrdc.org/onearth/heat-wave-australia-killed-23000-spectacled-flying-foxes>, last seen on 25/03/2021.

³⁶ U.N. World Meteorological Organisation, Press Release, *2020 on track to be one of three warmest years on record*, Press Release Number 02122020 (02/12/2020), available at [https://public.wmo.int/en/media/press-release/2020-track-be-one-of-three-warmest-years-record#:~:text=Geneva%2C%20%20December%202020%20\(WMO,to%20the%20World%20Meteorological%20Organization](https://public.wmo.int/en/media/press-release/2020-track-be-one-of-three-warmest-years-record#:~:text=Geneva%2C%20%20December%202020%20(WMO,to%20the%20World%20Meteorological%20Organization), last seen on 25/03/2021.

³⁷ *75% districts and half of India's population vulnerable to extreme climate events*, CEEW, available at <https://www.ceew.in/press-releases/75-districts-and-half-india%E2%80%99s-population-vulnerable-extreme-climate-events-ceew-study>, last seen on 25/03/2021.

³⁸ Ruchi Badola, *Local People Amidst the Changing Conservation Ethos: Relationships between People and Protected Areas in India*, in *Decentralization and Devolution of Forest Management in Asia and the Pacific* (Enters, T., Durst, P.B., and M. Victor, 2000).

outside PAs for the long-term survival of wildlife.³⁹ However, the protection of wilderness areas is not that simple and it is affected not just by laws but how effectively we understand the species requirements, ecosystem functions and the capacity to address key conservation challenges on ground.

In the next section, we have discussed different legal provisions, policies and global recognitions which influence protection of areas rich in wildlife outside the PAs.

III. LEGISLATIONS FOR PROTECTION OF WILDERNESS AREAS

1. Indian Forest Act, 1927

The Indian Forest Act, 1927 provides for establishment of Reserved Forests and Protected Forests, where the former is the most restricted category of forests. Reserved Forest enjoys full degree of protection as all activities are prohibited unless permitted. On the other hand, Protected Forest enjoys a limited degree of protection where all activities are permitted unless prohibited. The Act empowers state Forest Departments to take over, manage and protect these categories of forests.⁴⁰

The IFA was promulgated by the British Government for the primary purpose of timber and softwood production, and thereby revenue generation.⁴¹ The primary focus areas of IFA are categorization of forests into Reserved and Protected Forests, the procedure to be followed for their declaration, definition of forest offence, acts prohibited within Reserved and Protected forests, penalties for violation, transit of timber and other forest produce, and duty that can be levied on timber and other forest

³⁹ Ministry of Environment and Forests, Government of India, *National Wildlife Action Plan 2002-2016*, (2007), available at <http://wiienvs.nic.in/WriteReadData/UserFiles/file/NATIONAL%20WILDLIFE%20ACTION%20PLAN.PDF>, last seen on 27/03/2021.

⁴⁰ Sharachchandra Lele, *Thematic Essay: Understanding Current Forest Policy Debates through Multiple Lenses: The Case of India*, 2 Ecology, Economy and Society – the INSEE Journal 23 (2019), available at https://www.researchgate.net/publication/337469190_THEMATIC_ESSAY_Understanding_Current_Forest_Policy_Debates_through_Multiple_Lenses_The_Case_of_India, last seen on 25/03/2021.

⁴¹ Ibid.

produce.⁴² Conservation and management of wildlife and their habitats does not feature within the various sections and chapters of IFA. The Working Plans of those Forest Divisions which are recognized as important for wildlife conservation and serve as animal corridors have considerations and prescriptions for protection of wildlife. However, the efforts for management of wildlife habitats in such state-owned forests do not match the resource and protection enjoyed by PAs notified under WPA.

2. Wildlife (Protection) Act, 1972

National Park & Wildlife Sanctuary

The WPA is the primary legislation for protection of wildlife and their habitats by declaring areas of significant ecological, floral and faunal value as National Parks and Wildlife Sanctuaries. The former enjoys the highest degree of legal protection where no form of human activity is allowed, whereas the latter allows for limited use.⁴³ For example, grazing of livestock is prohibited in the National Parks but the same can be allowed in a regulated manner within Sanctuaries.⁴⁴ The Chief Wildlife Warden within the State Forest Department is responsible for the management of the national parks and wildlife sanctuaries.⁴⁵

Conservation & Community Reserves

Areas which are rich in flora and fauna but also have significant human presence are protected as 'Conservation Reserve' and 'Community

⁴² Farida Tampal, *Introduction to Indian Forest Act, 1927 Indian Forest (Conservation) Act, 1980 & Wildlife (Protection) Act, 1972*, 12-13 (2013), available at <http://www.mcrhrdi.gov.in/88fc/week-8/Law-IndianForest%20Act.pdf>, last seen on 25/03/2021.

⁴³ M.G. Harihar et al., *Protected Areas and Biodiversity Conservation in India*, 237 *Biological Conservation* 114-124 (2019), available at <https://doi.org/10.1016/j.biocon.2019.06.024>, last seen on 25/03/2021.

⁴⁴ S. Edake, *The protected area network of India*, The Energy and Resources Institute (TERI), available at <https://www.teriin.org/opinion/protected-area-network-india>, last seen on 25/03/2021; Ss. 33 (d) & 35 (7), The Wildlife (Protection) Act, 1972.

⁴⁵ Ss. 33 & 35(8), The Wildlife (Protection) Act, 1972; Shekar Dattatri, *The Institutional Framework for Wildlife Conservation in India*, Conservation India, available at <https://www.conservationindia.org/resources/the-institutional-framework-for-wildlife-conservation-in-india#:~:text=The%20Ministry%20of%20Environment%20%26%20Forests,and%20forestry%20policies%20and%20programmes,> last seen on 25/03/2021.

Reserve’- new PA categories inserted by amendment in the WPA in 2002.⁴⁶ Conservation Reserves are established on public land⁴⁷ and are managed by Conservation Reserve Management Committee which consists of representatives from State Forest Department, Agriculture and Animal Husbandry Department, Village Panchayat and Conservation NGOs.⁴⁸ Community Reserves, on the other hand are established on private land⁴⁹ and are managed by Community Reserves Management Committee which consists of representative from Village Panchayat and State Forest Department.⁵⁰ Land use change within Conservation and Community Reserve is regulated by the management plan approved by their respective management committee.

Tiger Reserves

The Government of India in 1973 launched a Centrally Sponsored Scheme, the ‘Project Tiger’ with the objective to maintain a viable tiger population in the country. The scheme called for creation of reserves with an average of 1500 sq.km. for conserving tiger habitat, its prey base and other flora and fauna.⁵¹ Initially, nine reserves were created under Project Tiger, however, none of these areas enjoyed any protection under the WPA. It was only after the 2006 Amendment in the Act that Tiger Reserves got a legal conservation status.⁵² Under the wildlife law, every tiger reserve includes a core or critical tiger habitat (“**CTH**”) and a buffer or peripheral area. CTH are areas of National Parks and Wildlife Sanctuaries which on the basis of scientific criteria are kept inviolate for tiger conservation. The buffer area consists of the area peripheral to the CTH with a lesser degree of habitat protection.⁵³ Tiger Reserves are managed by the State Forest Department on the basis of a Tiger Conservation Plan approved by the

⁴⁶ S. 3(j), The Wildlife (Protection) Amendment Act, 2002.

⁴⁷ S. 36 A (1), The Wildlife (Protection) Act, 1972.

⁴⁸ S. 36 B, The Wildlife (Protection) Act, 1972.

⁴⁹ S. 36 C (1), The Wildlife (Protection) Act, 1972.

⁵⁰ S. 36 D, The Wildlife (Protection) Act, 1972.

⁵¹ Ministry of Environment & Forests (Project Tiger), Government of India, *The Report of the Tiger Task Force: Joining the Dots*, available at https://ntca.gov.in/assets/uploads/Reports/Joining_the_dot.pdf, last seen on 25/03/2021.

⁵² S. 2, The Wildlife (Protection) Amendment Act, 2006.

⁵³ S. 38 V (4), The Wildlife (Protection) Act, 1972.

National Tiger Conservation Authority (“**NTCA**”).⁵⁴ Constituted under the WPA, NTCA is the nodal authority for tiger conservation in India. Headed by the Minister in-charge of the Ministry of Environment, Forest and Climate Change (“**MoEFCC**”),⁵⁵ the NTCA has the power to disallow any ecologically unsustainable land use such as mining, industry within tiger reserves.⁵⁶ Recommendation of NTCA and prior approval of National Board for Wildlife is required for diverting tiger reserves and areas linking tiger reserves and protected areas for ecologically unsustainable activities.⁵⁷ Presently, there are 50 tiger reserves in the country spread over an area of 71,027.10 sq.km.⁵⁸

3. Biological Diversity Act, 2002

India’s Biological Diversity Act, 2002 grants state government the power to notify (in consultation with local bodies) areas of biodiversity importance as Biodiversity Heritage Sites (“**BHS**”).⁵⁹ These sites are well-defined areas that are unique, ecologically fragile and can be terrestrial, coastal or spread over inland/marine waters.⁶⁰ BHSs are endowed with rich wildlife as well as domesticated species and are characterized by high endemism, presence of rare and threatened species, keystone species and species of evolutionary significance.⁶¹ The basic purpose behind the BHS provision is to cover, as far as possible, those sites that are not covered under the PA Network of the WPA.⁶²

Unlike National Parks and Wildlife Sanctuaries where resource use practices of local communities are either prohibited or strictly regulated, the BHS provision does not necessarily put such restrictions, other than

⁵⁴ Ss. 38 V (3) & 38 O (a), The Wildlife (Protection) Act, 1972.

⁵⁵ S. 38 L (2) (a), The Wildlife (Protection) Act, 1972.

⁵⁶ S. 38 O (b), The Wildlife (Protection) Act, 1972.

⁵⁷ S. 38 O (g), The Wildlife (Protection) Act, 1972. (exception is given in case of public interest)

⁵⁸ *Tiger Reserves*, ENVIS Centre on Wildlife and Protected Areas, available at http://wiienviis.nic.in/Database/trd_8222.aspx, last seen on 25/03/2021.

⁵⁹ S. 37 (1), The Biological Diversity Act, 2002.

⁶⁰ S. 3.1., Guidelines for Identification, Notification and Management of Biodiversity Heritage Sites.

⁶¹ *Ibid.*

⁶² S. 4.6., Guidelines for Identification, Notification and Management of Biodiversity Heritage Sites.

those voluntarily decided by them.⁶³ The State Government (in consultation with Central Government) has the power to frame rules for the management and conservation of heritage sites.⁶⁴

4. Environment (Protection) Act, 1986

The Environment (Protection) Act, 1986 (“EPA”) grants MoEFCC the power to take measures which it feels necessary to improve environmental quality and control environment pollution.⁶⁵ The Rules framed under the EPA grants Ministry the power to restrict location of industries and their operations for considerations such as biological diversity of the area, maximum allowable limits of concentration of pollutants for an area and need for environmentally compatible land use.⁶⁶ Using these provisions, the Central Government has identified and notified Eco-Sensitive Zones (“ESZs”) and Ecologically Sensitive Areas (“ESAs”). The powers granted under the EPA were also used to conserve and protect the unique environment of coastal stretches and marine areas. Using the same provisions, the Government notified the Coastal Regulation Zone Notification to conserve the coastal and marine area of the country. Lastly, the Wetland (Conservation and Management) Rules, 2019 were propagated under the EPA to extend legal protection to wetland ecosystems across the country.

Eco-sensitive Zones

Eco-sensitive zones are areas, extending up to 10 km, notified around national parks and Wildlife Sanctuaries.⁶⁷ The idea behind declaring ESZs was to create shock absorbers around PAs where development and industrial activities are regulated before it spills into an industrial urban area with severe anthropogenic pressures.⁶⁸ ESZs also act as transition zones

⁶³ S. 2.7, Guidelines for Identification, Notification and Management of Biodiversity Heritage Sites.

⁶⁴ S. 37(2), The Biological Diversity Act, 2002.

⁶⁵ S. 3, The Environment (Protection) Act, 1986.

⁶⁶ Rule 5(1), The Environment (Protection) Rules, 1986.

⁶⁷ Perna Singh Bindra, *The Vanishing: India's Wildlife Crisis*, 279 (1st ed., 2017).

⁶⁸ Ibid.

from areas of high protection to areas with lesser protection.⁶⁹ The concept of ESZs took shape during the 21st meeting of the Indian Board for Wildlife where the Wildlife Conservation Strategy-2002 was adopted. The strategy called for notifying areas within 10 km radius around sanctuaries and national parks as ecologically fragile zones.⁷⁰

It is important to remember that the purpose of an ESZ goes beyond being a buffer around the protected areas. These zones must also include migratory routes and corridors used by wildlife to move from one protected area to another. The NWAP (2002-2016) identified areas outside protected areas as *vital ecological corridor links* which must be protected to prevent isolation of fragments of biodiversity. The Plan called for notifying area around protected areas and wildlife corridors as ecologically fragile zones under Environment (Protection) Act, 1986.⁷¹ To date, ESZs of 303 protected areas have been notified by the Central Government.⁷²

The Supreme Court in the matter of *Goa Foundation v. Union of India*⁷³ passed important orders in the context of identification and notification of ESZs,⁷⁴ with most important being the projects which have been given environmental clearance within the 10 km zone of national parks or wildlife sanctuaries before the declaration of ESZs would have to be referred to the standing committee of the National Board for Wildlife for further permission.⁷⁵

Ecologically Sensitive Areas

ESAs are declared under similar provisions as ESZs. Unlike ESZs which are site-specific and restricted to one individual PAs, ESAs are larger areas,

⁶⁹ S. 3, Guidelines for Declaration of Eco-Sensitive Zones Around National Parks and Wildlife Sanctuaries, 2011.

⁷⁰ S. 1.1, Guidelines for Declaration of Eco-Sensitive Zones Around National Parks and Wildlife Sanctuaries, 2011.

⁷¹ S. 1.2., Guidelines for Declaration of Eco-Sensitive Zones Around National Parks and Wildlife Sanctuaries, 2011.

⁷² *Status of ESZ Notifications*, Ministry of Environment, Forest & Climate Change, available at <http://moef.gov.in/en/rules-and-regulations/esz-notifications-2/>, last seen on 25/03/2021.

⁷³ *Goa Foundation v. Union of India*, (2011) 15 SCC 791.

⁷⁴ S. Kuriakose, *Supreme Court on Wildlife Conservation Kaziranga-Karbi Anglong Landscape*, Vidhi Centre for Legal Policy, available at <https://vidhilegalpolicy.in/wp-content/uploads/2020/12/Case-Brief-Wildlife-Corridors-Kaziranga-VCLP-Dec-2020.pdf>, last seen on 26/03/2021.

⁷⁵ *Supra* 73.

aimed at landscape level conservation. ESAs aims to safeguard ecologically fragile areas through land use planning against ecologically destructive activities such as mining and quarrying, thermal power plants, industry, building and construction etc.⁷⁶ Till now, the MoEFCC has notified Western Ghats, Dahanu Taluka, Doon Valley, Bhagirathi river stretch, Mahabaleshwar-Panchgani, Matheran and Mount Abu as ESAs.⁷⁷

Coastal Regulation Zones

The Coastal Regulation Zone (“**CRZ**”) Notification issued under the EPA seeks to regulate industrial development and operations in CRZ areas. The definition of CRZ includes the land area from High Tide Line (“**HTL**”) to 500 meters on the landward side; the land between HTL to 50 meters or width of the creek; the land area between HTL and Low Tide Line (“**LTL**”) known as the intertidal zone and the water and the bed area between the LTL to the territorial water limit (12 nautical miles) in case of the sea, and water and the bed area between the LTL at the bank to the LTL on the opposite side of the bank, of tidal influenced water bodies.⁷⁸ The CRZ is classified into four zones-CRZ-I, CRZ-II, CRZ-III, and CRZ-IV where each zone has its own set of restrictions on industrial processes and operations. The Notification prohibits a certain set of activities across all zones such as setting up of new industries, manufacture, and handling of hazardous substances, dumping of solid waste, discharge of untreated waste, and land reclamation (except for permissible activities executed with prior approval).⁷⁹ Besides the four zones, the CRZ Notification also identifies certain coastal areas for special consideration for protection. These include the Critically Vulnerable Coastal Areas, Inland Backwaters and islands along the mainland coast, and CRZ falling within municipal limits of Greater Mumbai.

The primary responsibility for the implementation and enforcement of CRZ Notification lies with the State Government and State Coastal Zone

⁷⁶ Supra 67.

⁷⁷ *ESA Notifications*, Ministry of Environment, Forest, and Climate Change, available at <http://moef.gov.in/en/rules-and-regulations/esa-notifications/>, last seen on 25/03/2021.

⁷⁸ *The Coastal Regulation Zone Notification 2019*.

⁷⁹ S. 4, *The Coastal Regulation Zone Notification 2019*.

Management Authority (“**SCZMA**”). SCZMA has been constituted by the Central Government in every coastal state and enjoys powers such as taking measures for protection and improvement of environment, issuing directions for closure of industrial units, prohibiting and regulating activities and prosecution of offenders of CRZ Notification.⁸⁰

Legal Protection to Wetlands

The MoEFCC notified the Wetland (Conservation and Management) Rules, 2017 with the objective to provide a legal framework for the conservation and sustainable use of wetland ecosystems.⁸¹ In order to qualify for the protection, a wetland needs to be a Ramsar Site or a wetland notified by a state or union territory government, or the Central government in the case of transboundary wetlands.⁸² Rule 4 prohibits ecologically destructive activities such as conversion of wetland to support encroachment, construction, industrial siting or expansion, manufacture and handling of hazardous waste, solid waste dumping, effluent disposal and poaching.

For its implementation, the Wetland Rules provide for constitution of the National Wetlands Committee (at the Central Government level) which is headed by the Secretary, MoEFCC.⁸³ The Committee advises the Central Government on policies and programs for the conservation of wetlands and is responsible for monitoring the implementation of Rules.⁸⁴ At the state level, the Rules provide for constitution of State Wetland Authority which is headed by the Minister in charge of the State Department of Environment and Forests.⁸⁵ The Authority is responsible for preparation

⁸⁰ M. Gopal, *Sea of Regulations – Protecting The Coastal Commons in India (Analysis) – Part II*, NLUO Blog For Animal and Environmental Jurisprudence and Rights, available at <https://saaewnluo.in/2020/09/14/sea-of-regulations-protecting-the-coastal-commons-in-india-analysis-part-ii/>, last seen on 25/03/2021.

⁸¹ The Wetland Rules define wetland under Section 2(g) as an area of marsh, fen, peatland or water; whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six meters.

River Channels, paddy fields, human-made water bodies tanks constructed for drinking water and structures constructed for aquaculture, salt production, recreation and irrigation are not included in the above definition.

⁸² Rules 3, 7(3) & 7(4), Wetland (Conservation and Management) Rules, 2017.

⁸³ Rule 6(1), Wetland (Conservation and Management) Rules, 2017.

⁸⁴ Rule 6(3), Wetland (Conservation and Management) Rules, 2017.

⁸⁵ Rule 5(1), Wetland (Conservation and Management) Rules, 2017.

of list of wetlands to be notified and based on their recommendation, the State Government notifies the wetland in the Official Gazette.⁸⁶ The Authority is also required to develop a list of regulated and permitted activities within the notified wetlands⁸⁷ and has the power to modify the list of prohibited activities.⁸⁸ Lastly, the State Wetland Authorities are also responsible for reviewing the integrated management plan for each notified wetland,⁸⁹ and its implementation can only begin after receiving the Authority's endorsement.⁹⁰

IV. GOVERNMENT RECOGNITIONS TO IMPORTANT WILDERNESS AREAS

1. Elephant Reserves

The Government of India in 1991-92 launched a 100% Centrally Sponsored Scheme the 'Project Elephant' with the objective to conserve a viable population of wild elephants in their natural habitats. The scheme also aimed towards restoration and conservation of corridors and movement paths used by elephants and to address the issue of man-elephant conflict.⁹¹ The need for Project Elephant was considered keeping in mind the elephant's non-territorial behavior and large home range requirements. The Scheme recognizes that elephant conservation cannot be restricted to management of small section of forests and that migratory routes and corridors used by elephants are an ecological necessity for their survival.⁹²

⁸⁶ Rule 5(4) (b), Rule 7(2) & Rule 7(3), Wetland (Conservation and Management) Rules, 2017.

⁸⁷ Rule 5(4) (e), Wetland (Conservation and Management) Rules, 2017.

⁸⁸ Rule 5(4) (f), Wetland (Conservation and Management) Rules, 2017.

⁸⁹ Rule 5(4) (h), Wetland (Conservation and Management) Rules, 2017.

⁹⁰ Ministry of Environment, Forest & Climate Change, Government of India, *Guidelines for implementing Wetlands (Conservation and Management) Rules, 2017*, available at moef.gov.in/wp-content/uploads/2020/01/final-version-and-printed-wetland-guidelines-rules-2017-03.01.20.pdf, last seen on 25/03/2021.

⁹¹ *Introduction to Project Elephant*, Ministry of Environment, Forest & Climate Change, available at <http://moef.gov.in/en/division/forest-divisions-2/project-elephant-pe/introduction/>, last seen on 25/03/2021.

⁹² S. 2, Revised Guidelines for Implementation of Works under Centrally Sponsored Scheme- Project Elephant During XII Plan, 2013.

In order to strengthen elephant conservation, various elephant range states in the country have notified Elephant Reserves. These reserves encompass wildlife sanctuaries, national parks, other protected areas, forests under various legal categories and even private lands. Presently, there are 32 Elephant Reserves in the country spread over an area of 65,000 km².⁹³

The MoEFCC Report titled *Gajah: Securing the Future for Elephants in India* considers Elephant Reserves as the basic management unit for focused elephant conservation in the country.⁹⁴ However, despite their importance, these reserves do not enjoy any legal protection under the WPA. National Parks and Wildlife Sanctuaries cover less than 30% of the total Elephant Reserve area⁹⁵ and the remaining area does not enjoy the legal conservation status under the Wildlife Law.

2. Biosphere Reserves

Biosphere Reserves are area of terrestrial, marine and coastal ecosystems that are internationally recognized under UNESCO's Man and Biosphere ("MAB") Programme.⁹⁶ The underlying thrust of the Biosphere Reserve scheme is to reconcile conservation of biodiversity and economic and social development through alternate livelihood provisions and maintenance of cultural values. Special focus has been laid on the co-existence of people and nature.⁹⁷ Every Biosphere Reserve is demarcated into three zones viz. core, buffer and transition. Core one is strictly protected for the conservation of biodiversity and is kept free from all human presence external to the system. The buffer adjoins or surrounds

⁹³ N. Thomas, *Chapter 1: Elephant Conservation in India*, 1 Trumpet Quarterly Journal 1, 10 (July-September 2020), available at <http://moef.gov.in/wp-content/themes/moef-green/ebook/Trumpet/index.html>, last seen on 25/03/2021.

⁹⁴ Ministry of Environment & Forests, Government of India, *The Report of the Elephant Task Force 2010*, available at <http://moef.gov.in/wp-content/uploads/2019/08/04-Gajah-final.pdf>, last seen on 25/03/2021.

⁹⁵ Ibid.

⁹⁶ Ministry of Environment & Forests, Government of India, *Conservation of Natural Resources including Forestry and Wildlife*, available at <http://moef.gov.in/wp-content/uploads/report/0203/chap-03.pdf>, last seen on 25/03/2021.

⁹⁷ *Presentation by Dr. R. Dalvani at the 4th World Congress on Biosphere Reserves (SACAM side event)*, 4th World Congress on Biosphere Reserves Lima, Peru, March 14- March 18, 2006, UNESCO available at http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/SC/images/04_4WCBR_Presentation.pdf, last seen on 26/03/2021.

the core where ecological compatible activities such as environmental education, recreation, ecotourism, and applied basic research are permitted. The Transition Zone is the outermost zone of the Biosphere Reserve which contains a variety of agricultural activities, settlements and other uses.⁹⁸ Data maintained by Wildlife Institute of India indicates that there are 18 Biosphere Reserves in India.⁹⁹

The MoEFCC provides financial assistance to the State Governments for the conservation and management of Biosphere Reserves. For its governance, the MAB Programme consists of the Indian National MAB Committee, State Level Steering Committees and Local Level Committee. The National Committee advises the MoEFCC on the policy and program formation for Biosphere Reserves and lays down guidelines for preparation of management actions plans for the reserves. The State Level Committee examines the management plans and makes recommendations for financial assistance. Lastly, the Local Level Committee coordinates activities of various government line departments and recommends interventions in the management plan. However, the Biosphere Reserves as a whole are not backed by any legislation.

3. Important Coastal and Marine Biodiversity Areas

The Aichi Biodiversity Targets signed under the Convention on Biological Diversity (“CBD”) had called for conserving at least 10% of coastal and marine areas in networks of protected areas.¹⁰⁰ The Targets also required restoration and safeguarding ecosystems that provide water, health, livelihoods and well-being. For India to achieve these targets, the Wildlife Institute of India had identified 107 coastal and marine sites and prioritized them as Important Coastal and Marine Biodiversity Areas (ICMBAs).¹⁰¹

⁹⁸ *Zoning Schemes*, Ecological Sciences for Sustainable Development, available at <http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/biosphere-reserves/main-characteristics/zoning-schemes/>, last seen on 25/03/2021.

⁹⁹ *Biosphere Reserves*, ENVIS Centre of Wildlife and Protected Areas, available at http://www.wiienvis.nic.in/Database/br_8225.aspx, last seen on 25/03/2021.

¹⁰⁰ *Aichi Biodiversity Targets*, Convention on Biological Diversity, available at <https://www.cbd.int/sp/targets/>, last seen on 25/03/2021.

¹⁰¹ *Important Coastal and Marine Biodiversity Areas*, ENVIS Centre of Wildlife and Protected Areas, available at http://www.wiienvis.nic.in/Database/ICMBAs_8247.aspx, last seen on 11/05/2021.

These sites are proposed to be legally protected as Conservation Reserves or Community Reserves (under WPA).¹⁰²

4. Project Snow Leopard

The Project Snow Leopard (“PSL”) was launched in July 2006 by the government of India an initiative similar to Project Tiger and Project Elephant with the purpose of landscape conservation to protect the ecosystems of wild animals found in high altitude ecosystems using Snow Leopards as a flagship species through participatory policies and actions.¹⁰³

¹⁰⁴ The Project is designed for all biologically important habitats within the Snow Leopard’s range, irrespective of the ownership. Consequently, the project area will extend to protected areas as well as areas outside the protected area network. Three landscapes namely, Hemis-Spiti across Ladakh and Himachal Pradesh; Nanda Devi – Gangotri in Uttarakhand; and Khangchendzonga – Tawang across Sikkim and Arunachal Pradesh are identified to be conserved under the PSL program.¹⁰⁵

V. GLOBAL RECOGNITIONS TO IMPORTANT WILDERNESS AREAS

A database of global biodiversity hotspots is maintained by several reputed conservation organizations. Such areas are recognized following a robust process backed by highly credible scientific research. While these recognitions may or may not be backed by a legal mandate or intergovernmental treaty, inclusion of any area under some of these databases have significant influence on the conservation policies, monitoring efforts and greater financial support to manage such areas.

¹⁰² K. Sivakumar, V.B. Mathur & A. Pande, *Chapter 2: Coastal and Marine Protected Areas in India: Challenges and Way Forward*, in *ENVIS Bulletin on Coastal and Marine Protected Areas in India: Challenges and Way Forward* 50-63 (K. Sivakumar, 15th ed., 2014).

¹⁰³ *The Launch of India’s Project Snow Leopard*, Snow Leopard Network, available at <https://snowleopardnetwork.org/2006/07/01/the-launch-of-indias-project-snow-leopard/>, last seen on 26/03/2021.

¹⁰⁴ Ministry of Environment & Forests, Government of India, *The Project Snow Leopard 2008*, available at <http://moef.gov.in/wp-content/uploads/2018/03/Project-Snow-Leopard-2008.pdf>, last seen on 26/03/2021.

¹⁰⁵ *Government committed to landscape restoration for snow leopard habitat conservation. States together with the Centre should resolve to bring up the population of snow leopards in the next five years*, Press India Bureau Delhi, available at <https://pib.gov.in/PressReleasePage.aspx?PRID=1667118>, last seen on 26/03/2021.

Such recognitions also facilitate documentation of biodiversity and declaration of new protected areas by the governments.

1. Wetlands of International Importance: The Ramsar Convention

The Convention on Wetlands of International Importance especially as Waterfowl Habitat (also known as Ramsar Convention) is an intergovernmental treaty for national and international action on conservation and wise use of wetlands and its resources.¹⁰⁶ The convention was adopted in 1971 at Ramsar, Iran and came into force in India on February 01, 1982.¹⁰⁷ The convention recognizes the ecological importance of wetlands as regulators of water regime and providers of habitat for various flora and fauna, especially waterfowl and strives to reduce the encroachment and consequent loss of wetlands.¹⁰⁸ The Parties to the Convention are required to designate suitable wetlands within their territorial jurisdiction for inclusion in the *List of Wetlands of International Importance*. These wetlands are also known as Ramsar Sites and are selected based on their international ecological, botanical, zoological or hydrological significance, with priority given to those which are of international importance to waterfowl at any season.¹⁰⁹ To qualify as a Ramsar site, the identified site must meet nine criteria defined under two broad categories viz. presence of representative, rare or unique wetland type and international significance for biodiversity conservation.¹¹⁰ As of date, India has designated 42 Ramsar sites spread over an area of 10, 814.38 km².¹¹¹ Inclusion of wetlands in the Ramsar site confers upon it the prestige of international recognition and embodies the government's commitment to maintenance of the ecological character of the site.¹¹² Ecological

¹⁰⁶ *About the Ramsar Convention*, Ramsar, available at <https://www.ramsar.org/>, last seen on 26/03/2021.

¹⁰⁷ *Country Profile: India*, Ramsar, available at <https://www.ramsar.org/wetland/india>, last seen on 26/03/2021.

¹⁰⁸ Preamble, Convention on Wetlands of International Importance especially as Waterfowl Habitat, Preamble, 1971.

¹⁰⁹ Art. 2, Convention on Wetlands of International Importance especially as Waterfowl Habitat, 1971.

¹¹⁰ *An Introduction to the Ramsar Convention on Wetlands*, 41 (5th ed., 2016).

¹¹¹ *Supra* 107.

¹¹² *Supra* 110.

character refers to processes and components which make the wetland a particular, and sometimes unique, ecosystem.¹¹³ After its designation in the Ramsar List, any change in the ecological character of the wetland due to human interference, pollution or technological development must be reported without delay to the Ramsar Secretariat.¹¹⁴

2. Important Bird and Biodiversity Areas

BirdLife International's Important Bird and Biodiversity Areas (“IBAs”) are sites of international significance for the conservation of the world's birds and other biodiversity. The sites also provide essential benefits to people such as food, materials, water, climate regulation and flood protection.¹¹⁵ Originally, IBAs were called Important Bird Areas, but in June 2014, it was changed to Important Bird and Biodiversity Areas to reflect the biodiversity significance of these sites.¹¹⁶ The sites are identified using four internationally agreed criteria based upon globally threatened species, groups of species with a restricted range, species assemblages confined to a single biome, and congregations of one or more species.¹¹⁷ In India, Bombay Natural History Society (BNHS) along with Bird Life International has identified 554 IBAs covering an area of 194,157.98 km².¹¹⁸ These conservation sites support 1,212 species of birds¹¹⁹ and are spread across a range of habitats such as wetlands, mudflats, grasslands and scrublands making them excellent indicators of biodiversity richness.¹²⁰ IBAs are monitored using regular assessments wherein each IBA is scored

¹¹³ Neha Sinha, *Reconsider the Rules: on 2017 Wetland Rules*, The Hindu (21/12/2017), available at <https://www.thehindu.com/opinion/op-ed/reconsider-the-rules/article22085813.ece>, last seen on 26/03/2021.

¹¹⁴ Arts. 3 & 8, Convention on Wetlands of International Importance especially as Waterfowl Habitat, 1971.

¹¹⁵ BirdLife International, *Important Bird and Biodiversity Areas: A global network for conserving nature and benefiting people* (2014), available at <http://datazone.birdlife.org/userfiles/file/IBAs/pubs/SOWIBAs2014.pdf>, last seen on 26/03/2021.

¹¹⁶ Zoltan Waliczky et al., *Important Bird and Biodiversity Areas (IBAs): their impact on conservation policy, advocacy and action*, 29 Bird Conservation International 199-215 (2019), available at <https://doi.org/10.1017/S0959270918000175>, last seen on 26/03/2021.

¹¹⁷ Supra 115.

¹¹⁸ India, Bird Life International Data Zone, available at <http://datazone.birdlife.org/country/india/resources>, last seen on 26/03/2021.

¹¹⁹ Ibid.

¹²⁰ Ministry of Environment & Forests, Government of India, *India's Fifth National Report to the Convention on Biological Diversity 2014*, available at <https://www.cbd.int/doc/world/in/in-nr-05-en.pdf>, last seen on 26/03/2021.

on their state (condition of birds and their habitats), pressures (threats that impact them) and conservation responses (action plans and management activities).¹²¹

3. Key Biodiversity Areas

The International Union for Conservation of Nature (IUCN) defines Key Biodiversity Areas (“KBAs”) as “*sites that contribute significantly to the global persistence of biodiversity, in terrestrial, marine and freshwater ecosystems*”.¹²² KBAs support critical populations of the world's threatened species and mapping and subsequent protection of KBAs can ensure the conservation of largest and important populations of these species, giving them a real chance of survival. In addition to species population, the KBA criteria also consider their ecosystems or habitats and identify them by the unique collection of species they sustain. Their conservation would therefore ensure simultaneous survival of many species.¹²³ The KBA Standard developed by IUCN identifies KBAs based on 11 criteria defined under five broad categories viz. “*threatened biodiversity, geographically restricted biodiversity, ecological integrity, biological processes and very high irreplaceability*”.¹²⁴ The IUCN has identified 531 KBA sites in India.¹²⁵

¹²¹ BirdLife International, *Important Bird and Biodiversity Areas: A global network for conserving nature and benefiting people* (2014), available at <http://datazone.birdlife.org/userfiles/file/IBAs/pubs/SOWIBAs2014.pdf>, last seen on 26/03/2021; India, Bird Life International Data Zone, available at <http://datazone.birdlife.org/country/india/resources>, last seen on 26/03/2021.

¹²² *Key Biodiversity Areas*, IUCN, available at <https://www.iucn.org/regions/mediterranean/our-work/biodiversity-knowledge-and-action/biodiversity-standards-and-indicators/key-biodiversity-areas>, last seen on 26/03/2021.

¹²³ *Saving Nature, Key Biodiversity Areas*, available at <http://www.keybiodiversityareas.org/about-kbas/saving-nature>, last seen on 26/03/2021.

¹²⁴ KBA Standards and Appeals Committee, *Guidelines for using A Global Standard for the Identification of Key Biodiversity Areas* (2020), available at <https://portals.iucn.org/library/sites/library/files/documents/2020-033-En.pdf>, last seen on 26/03/2021.

¹²⁵ *Key Biodiversity Areas*, ENVIS Centre on Wildlife and Protected Areas, available at <http://wiienvis.nic.in/Database/Key Biodiversity Areas 8647.aspx>, last seen on 26/03/2021.

4. Alliance for Zero Extinction Sites

The Alliance for Zero Extinction (“AZE”) is a worldwide consortium of global biodiversity conservation organisations with the aim to prevent species extinction. To achieve the same, the Alliance identifies and safeguards sites which are the last remaining refuges of one or more Endangered or Critically Endangered Species.¹²⁶ In order to qualify as an AZE Site, all three criteria viz. *endangerment*, *irreplaceability* and *discreteness* need to be satisfied.¹²⁷ Conservation of AZE sites has been considered as essential to achieve the CBD target of preventing extinctions of known species. Their protection has been included as a critical piece of the CBD.¹²⁸

VI. SACRED GROVES

Sacred Groves (“SGs”) are the relic forest segments preserved in the name of religion and culture.¹²⁹ SGs can range from few trees to forests of several acres. They include a wide range of ecosystems such as evergreen forests, hill forests, swamp forests, mangroves, deserts and acts as habitat of several unique wildlife.¹³⁰ Such forests enjoy social protection from local communities and are often associated with worshipping places of local folk deities or tree spirits. These spaces are protected by local communities because of their religious beliefs and traditional rituals that run through several generations. Thus, these SGs enjoy natural protection from human exploitation and have evolved as areas of high flora and fauna diversity.

¹²⁶ *Partner List*, Alliance for Zero Extinction, available at <https://zeroextinction.org/the-alliance/partner-list/>, last seen on 26/03/2021.

¹²⁷ *AZE Site Criteria*, Alliance for Zero Extinction, available at <https://zeroextinction.org/site-identification/aze-site-criteria/>, last seen on 26/03/2021.

¹²⁸ Stephan M. Funk et al., *Meeting the Aichi targets: Pushing for zero extinction conservation*, 46 *Ambio* 443-455 (2017), available at <https://link.springer.com/content/pdf/10.1007/s13280-016-0892-4.pdf>, last seen on 26/03/2021.

¹²⁹ Sushma Singh et al., *Sacred Groves: Myths, Beliefs, and Biodiversity Conservation—A Case Study from Western Himalaya, India*, 2017 *International Journal of Ecology* (2017), available at <https://www.hindawi.com/journals/ijecol/2017/3828609/>, last seen on 26/03/2021.

¹³⁰ R. Ray, M.D.S Chandran & T.V. Ramachandra, *Biodiversity and ecological assessments of Indian sacred groves*, 25 *Journal of Forestry Research* 21-28 (2014), available at http://wgbis.ces.iisc.ernet.in/energy/water/paper/jfr_sacred_groves/sacred-groves.pdf, last seen on 26/03/2021.

Some reports claim that there are around 1,00,000 to 1,50,000 SGs in India mostly located in the Himalayan region, Western and Eastern Ghats, Coastal Region, Central Indian Plateau, and Western Desert.¹³¹ In India, Himachal Pradesh has the highest number of SGs (5000) followed by Kerala and Chhattisgarh.¹³² SGs in India have received protection through social fencing and local community traditions, instead of a protection under a single law. The ownership and management of SGs varies between different states, culture and traditions. Therefore, policies and schemes to manage SGs vary from state to state.

Most of the SGs in India are under management by community, with very limited control of the government. For e.g., in Meghalaya, SGs are covered under the local government law (District Council Forest Act 1958) where the management of SGs is entrusted to the persons to whom the religious ceremonies for the particular village(s) are entrusted in accordance with the customary practice in vogue.¹³³ No timber or forest produce is allowed to be removed from the SGs except for the purposes in connection with religious functions or ceremonies recognized by the religious head of the local community.¹³⁴

There are also examples where SGs are managed by the government in the form of Reserve/Protected Forests notified under the IFA. As seen in the case of district Kodagu (Karnataka), where the SGs (*devarakadus*) were once demarcated and notified as protected forest in 1873 which led to stopping of coffee-cultivation in such areas. In the year 1905, the SGs were transferred to the revenue department, and eventually 62% of these groves were lost till 1985.¹³⁵ The SGs were then transferred back to the forest

¹³¹ Supra 129.

¹³² L.S. Kandari et al., *Conservation and management of sacred groves, myths and beliefs of tribal communities: a case study from north-India*, 3 Environmental Systems Research (2014), available at <https://link.springer.com/article/10.1186/s40068-014-0016-8>, last seen on 26/03/2021.

¹³³ B.K. Tiwari, S.K. Barik & R.S. Tripathi, *Biodiversity Value, Status, and Strategies for Conservation of Sacred Groves of Meghalaya, India*, 4 Ecosystem Health 20 (1998), available at <https://onlinelibrary.wiley.com/doi/abs/10.1046/j.1526-0992.1998.00068.x>, last seen on 11/05/2021.

¹³⁴ Ibid.

¹³⁵ A.A. Ormsby, *The Impacts of Global and National Policy on the Management and Conservation of Sacred Groves of India*, 39 Human Ecology: An Interdisciplinary Journal 783 (2011), available at <https://link.springer.com/article/10.1007/s10745-011-9441-8?shared-article-renderer>, last seen on 26/03/2021.

department and notified as 'Reserve Forests'. However, these SGs though owned by the Forest Department are managed by village temple committees.¹³⁶

State governments have also initiated various schemes and policies for conservation of SGs. One such example is the Aravali Dev Van Sanrakshan Abhiyan launched by Udaipur South Forest Division in the year 1992 to help communities conserve the SGs.¹³⁷ However, the conservation of SGs is mainly done by community and local institutional arrangement. There is an effort to notify some of the SGs rich in floral and faunal diversity as 'Community Reserve' under the WPA which is expected to provide legal sanctity to such traditionally conserved areas on privately owned land.¹³⁸

¹³⁹ The Supreme Court of India has also upheld the value of such SGs in the Odisha mining case where the apex court ruled in the favour of Dongria Kondhs and Kutia Kondh with the observation that if the proposed project affects their right to worship their deity known as Niyam Rajah, that right has to be protected under articles 25 and 26 of Constitution of India.¹⁴⁰

VII. CHALLENGES IN EFFECTIVE IMPLEMENTATION OF CONSERVATION LAWS

The subject matter of forests and wildlife being in the concurrent list of the Constitution of India, the implementation mandate is mainly with the State Governments to identify, protect and manage such areas with the assistance and guidance from the Central government. While there are various legislations and policies which acknowledge and advocate for protecting wildlife spaces outside PAs, their implementation on ground has a chequered history. For instance, the ESZs being notified around PAs

¹³⁶ Ibid.

¹³⁷ *Dev-Forest Conservation at Aravali*, Department of Information and Public Relations, Rajasthan, available at <http://dipr.rajasthan.gov.in/content/dipr/en/news-detail.19079.html#>, last seen on 26/03/2021.

¹³⁸ S. 36C, The Wildlife Protection Act, 1972.

¹³⁹ P.V. Karunakran, M.Balasubramanian & B.R. Ramesh, *Conservation and Management of Sacred Groves in Kerala as Community Reserves* in *Strategy for Conservation of Sacred Groves*, in *Institute of Forests Genetics and Tree Breeding, Coimbatore* (C. KunhiKannan & B.R. Ramesh, 2004).

¹⁴⁰ *Orissa Mining Corporation v. Ministry of Forest & Environment & Ors.*, (2013) 6 SCC 476.

have many problems. Initially, the States were reluctant to declare ESZs, however with the Supreme Court's intervention in the matter of *Goa Foundation v. Union of India*, declaring 10 km uniform ESZ across all PAs until States complete the process,¹⁴¹ there was a sudden hurry in the manner in which ESZs are declared. One major criticism of the process has been the deliberate attempt to limit the extent of respective ESZs to the minimum. For example, in some cases it is either zero or up to a hundred meters with no consideration of the wildlife corridors which mars the entire purpose of declaring ESZs.¹⁴² The process also suffers from other administrative and political limitations, especially in the case of PAs situated near state borders, where the concerned state does not bother to consider the wildlife corridors and wild spaces beyond the respective state boundary. One such example is the draft notification for ESZ of Kaimur Wildlife Sanctuary in Bihar, which excluded any ESZ on its western, south-eastern and southern boundary of the Sanctuary which shares a boundary with the State of Uttar Pradesh.¹⁴³ While hearing a matter on infrastructure development on elephant corridors, the National Green Tribunal directed the Central Government to give legal recognition to the elephant corridors under the powers granted under Section 5 of the EPA and WPA.¹⁴⁴ ¹⁴⁵ There are also instances where the political parties and local residents oppose the declaration of wildlife corridors and ESZs alleging that the same deprives them of the development as observed in the case of

¹⁴¹ *Supra* 73.

¹⁴² Mayank Aggarwal, *States propose minimal eco-sensitive zones around protected areas*, Mongabay (06/08/2021), available at <https://india.mongabay.com/2020/08/states-propose-minimal-eco-sensitive-zones-around-protected-areas/>, last seen on 11/05/2021..

¹⁴³ *Draft Notification*, MoEFCC Notification S.O. 274(E) (28/01/15), available at <http://moef.gov.in/wp-content/uploads/2017/06/S.O.%20No%20274%20%5B28.01.2015%5D%20Draft%20ESZ%20Notification%20on%20Kaimur%20Wildlife%20Sanctuary%2C%20Bihar.pdf>, last seen on 26/03/21.

¹⁴⁴ *Kashmira Kakati v. Union of India & Ors.*, 2017 SCC OnLine NGT 388.

¹⁴⁵ *Pradip Kumar Bhuyan v. Union of India & Ors.*, 2018 SCC OnLine NGT 1831.

Kaziranga National Park, Wayanad Wildlife Sanctuary and Corbett National Park.^{146 147 148}

While there are concerns regarding diversion of area for industrial activities in important PAs such as Dehing Patkai Elephant Reserve (Assam), Rajaji National Park (Uttarakhand), Bhagwan Mahavir Wildlife Sanctuary and Mollem National Park (Goa)- there are also instances where entire PAs are being denotified by States such as the Turtle Wildlife Sanctuary (Uttar Pradesh) and Renuka Wildlife Sanctuary (Himachal Pradesh).^{149 150 151}

Failure to acknowledge the wildlife spaces in and around PAs has significant conservation impacts, especially for animals which are known to disperse over long distances for their survival. In the absence of legal protection to elephant reserves, the fate of such conservation efforts lies greatly on the discretion of the states. As seen recently in the case of Shivalik Elephant Reserve where the Uttarakhand High Court had to intervene staying the State government's approval denotifying the 4,500 sq km of the Elephant Reserve for expansion of Dehradun airport.¹⁵²

There are several other examples of environmental disputes related to protection of wildlife outside PAs which demanded judicial intervention.

¹⁴⁶ Vineet Upadhyay, *Bookings in Uttarakhand's Corbett Tiger Reserve shut down over protests against eco-sensitive zone*, The New Indian Express (26/11/2019), available at <https://www.newindianexpress.com/nation/2019/nov/26/bookings-in-uttarakhands-corbett-tiger-reserve-shut-down-over-protests-against-eco-sensitive-zone-2067467.html>, last seen 26/03/2021.

¹⁴⁷ Anup Sharma, *Locals miffed with draft eco sensitive zone of Kaziranga*, NorthEast Now (30/12/2019), available at <https://nenow.in/north-east-news/assam/locals-miffed-with-draft-eco-sensitive-zone-of-kaziranga.html>, last seen on 26/03/2021.

¹⁴⁸ Neethu Joseph, *Explainer: The controversy over proposed ESZ around Wayanad wildlife sanctuary*, The News Minute (11/02/2021), available at <https://www.thenewsminute.com/article/explainer-controversy-over-proposed-esz-around-wayanad-wildlife-sanctuary-143222>, last seen on 26/03/2021.

¹⁴⁹ Mayank Aggarwal & Sahana Ghosh, *Environment ministry unlocked many protected areas during the lockdown*, Mongabay (12/06/2020), available at <https://india.mongabay.com/2020/06/environment-ministry-unlocked-many-protected-areas-during-the-lockdown/>, last seen on 26/03/2021.

¹⁵⁰ Ambika Sharma, *Renuka wildlife sanctuary area to be denotified soon*, The Tribune India (20/02/2021), available at <https://www.tribuneindia.com/news/himachal/renuka-wildlife-sanctuary-area-to-be-denotified-soon-214792>, last seen on 26/03/2021.

¹⁵¹ Neha Shukla, *Varanasi to bid adieu to turtle sanctuary*, The Times of India (13/11/2019), available at <https://timesofindia.indiatimes.com/india/varanasi-to-bid-adieu-to-turtle-sanctuary/articleshow/72031659.cms>, last seen on 26/03/2021.

¹⁵² PII, *Uttarakhand High Court stays denotification of Shivalik Elephant Reserve*, The Indian Express (09/01/2021), available at <https://indianexpress.com/article/india/uttarakhand-high-court-stays-denotification-of-shivalik-elephant-reserve-7139531/>, last seen on 26/03/2021.

One of the major cases related to conservation of wildlife corridors and stepping stone forests can be seen in the Kaziranga case where the failure to declare ESZ around Kaziranga National Park had a significant impact on the wildlife dispersing towards the Karbi Anglong hills during seasonal floods inside Kaziranga National park, which lies on active floodplain. The wildlife of Kaziranga evolved in such a way that every year during floods, the animals would disperse towards the rich forests of Karbi Anglong which is situated on higher elevation. However, the increase in traffic on NH-37, construction of restaurants and commercial hotels on the corridor, and rampant mining in Karbi Anglong hills itself was proving detrimental to wildlife.^{153 154 155} The case drew a lot of attention towards the importance of maintaining wildlife corridors when the Supreme Court of India had to intervene and ban the mining in Karbi Anglong hills and any new construction on the wildlife corridors.¹⁵⁶ There was also a boundary wall constructed by Numaligarh Refinery Limited in No-Development Zone inside Deopahar Reserve Forest which obstructed elephant movements and even caused fatality of an elephant.¹⁵⁷ The National Green Tribunal directed demolition of the wall and regulated traffic on NH-37 to facilitate the free movement of wildlife between Kaziranga National Park and surrounding forests.¹⁵⁸

While the Kaziranga case received much attention because of its recognition as a UNESCO World Heritage site and a notified Tiger Reserve, a majority of the wildlife spaces do not enjoy such attention and their conservation is greatly challenged due to ignorance, poor

¹⁵³ National Tiger Conservation Authority, *Report regarding Rampant Mining in Karbi Anglong Hills adjoining Kaziranga Tiger Reserve, Assam*, available at <http://docplayer.net/190484661-Report-regarding-rampant-mining-in-karbi-anglong-hills-adjoining-kaziranga-tiger-reserve-assam.html>, last seen on 25/03/2021.

¹⁵⁴ Central Empowered Committee, Report No. 6 of 2019 in W.P.(C) No. 202/1995, available at <http://cecindia.nic.in/wp-content/uploads/2019/03/Report-No.-6-of-2019-in-App-No.1431-of-2018-filed-by-Rohit-Chaudhary.pdf>, last seen on 11/05/2021.

¹⁵⁵ Controller and Auditor General of India, *Report 3 of 2014-Performance Audit of Kaziranga National Park - Issues and Challenges*, available at <https://cag.gov.in/en/audit-report/details/4371>, last seen on 26/03/2021.

¹⁵⁶ T.N. Godavarman v. Union of India, W.P. (Civil) 202 of 1995 (Supreme Court, 12/04/2019).

¹⁵⁷ Shreya Dasgupta, *Refinery township golf course and boundary wall puts elephants at risk*, Mongabay (06/11/2015), available at <https://news.mongabay.com/2015/11/refinery-township-golf-course-and-boundary-wall-puts-elephants-at-risk/>, last seen on 26/03/2021.

¹⁵⁸ *Supra* 75.

documentation of biodiversity and lower resource allocation for monitoring and management by the government. These areas face multiple challenges ranging from encroachment of land, poaching, human-wildlife conflict as well as establishment of big infrastructure and development projects. A case in point is the recent proposal for establishing a 41,500-megawatts solar and wind renewable energy park spread across 60,000 hectares in the Kutch region of Gujarat. The unique desert ecosystem has been classified as a ‘wasteland’ even though it is home to hundreds of bird species. The project proponents also seem to have ignored the fact that the proposed area is a part of the Central Asian Flyway, an international bird migration route.¹⁵⁹ In one case, the environmental clearance of a 1320 MW coal-based thermal power plant was cancelled by the National Green Tribunal due to failure of the project proponent to acknowledge impact of the project on wildlife in the Reserve Forest areas adjoining the project site.¹⁶⁰ In another case, while hearing a matter related to de-notification of Turtle Wildlife Sanctuary situated in Varanasi, the Allahabad High Court relied on a report by Wildlife Institute of India where it observed that a portion of the PA was found to be “*least suitable habitat for turtles because of high anthropogenic disturbances such as cemented ghats, intense ferry boat activity, pollution and human presence along the river*”.¹⁶¹

Another important issue affecting wildlife conservation is dilution of the legal safeguards that were promulgated in the first place to protect the wild habitats. For example, wetlands have long been regarded as ‘wastelands’ and it was only in 2010 that the Environment Ministry promulgated the Wetland (Conservation and Management) Rules, 2010 to give these unique ecosystems legal protection. However, in 2017 with the passing of Wetland (Conservation and Management) Rules, 2017 various safeguards were diluted. To illustrate, the new Rules exclude man-made water bodies constructed for various purposes such as drinking water, aquaculture, salt production, recreation, and irrigation purposes. This removes a large

¹⁵⁹ Mayank Aggarwal, *The mega renewable energy park may not be as green as expected*, Mongabay (22/09/2020), available at <https://india.mongabay.com/2020/09/mega-renewable-energy-park-in-kutch-could-have-potentially-adverse-environmental-impact/>, last seen on 26/03/2021.

¹⁶⁰ Debadyo Sinha v. Union of India, 2014 SCC OnLine NGT 6090.

¹⁶¹ Bharat Jhunjhunwala v. Union of India, 2019 SCC OnLine All 4.

number of active wetlands from the definition of wetland and opens them for ecologically destructive uses. The National Wetland Atlas developed by the Indian Space Research Organization (ISRO) and released in 2011 estimated 2,01,503 wetlands in the country spread over an area of 14.7 million hectares. Out of these, 1,45,641 wetlands or 72% of the total number spread over 4.4 million hectares are man-made wetlands.¹⁶² Therefore, the 2017 Rules fail to cover 72% of the total wetlands in the country. In states such as Tamil Nadu, agriculture, drinking water security, and drought and flood mitigation are almost entirely dependent on traditional engineered water harvesting structures such as *eris* and *kanmais* (irrigation tanks). In such areas, the Rules will not be of much use.¹⁶³ Further, the 2010 rules extended protection to Ramsar wetlands; government notified wetlands; high-altitude wetlands larger than 5 hectares; wetlands at elevations less than 2,500 metres and spread over 500 hectares; wetlands located in ecologically sensitive areas and those lying within UNESCO World Heritage Sites.¹⁶⁴ However, legal protection was restricted to Ramsar wetlands and the government notified wetlands under the 2017 Rules¹⁶⁵ which superseded the 2010 Rules.

Ramsar sites which represent wetlands of international importance and upon their designation, the governments commit to their wise use. Wise use of wetlands implies maintaining their ecological integrity. However, Ramsar wetlands in India have been affected by unregulated activities, such as large-scale water abstraction, reclamation, establishment of industries, discharge of pollutants, etc. In fact, Keoladeo National Park and Loktak Lake are included in the Montreux Record.¹⁶⁶ The Montreux Record is a register of Wetlands of International Importance where changes in the ecological character have occurred, are occurring, or are likely to occur due

¹⁶² N. Jayaraman, *India's new wetland rules threaten to destroy 65% of its water bodies rather than protect them*, Scroll.in (12/10/2017), available at <https://scroll.in/article/853515/indias-new-wetland-rules-threaten-to-destroy-rather-than-protect-65-of-its-water-bodies>, last seen on 26/03/2021.

¹⁶³ Ibid.

¹⁶⁴ Wetland (Conservation and Management) Rules, 2010.

¹⁶⁵ Wetland (Conservation and Management) Rules, 2017, available at [http://www.indiaenvironmentportal.org.in/files/file/Wetlands%20\(Conservation%20and%20Management\)%20Rules.%202017.pdf](http://www.indiaenvironmentportal.org.in/files/file/Wetlands%20(Conservation%20and%20Management)%20Rules.%202017.pdf), last seen on 26/03/2021.

¹⁶⁶ *ATREE Report on Policy Consultation on Ramsar Wetlands in India*, Conference held on 15/05/2002 (Unpublished).

to human interference.¹⁶⁷ Some of these wetlands are also threatened on account of large dams and other development projects that have altered the flow patterns of rivers feeding the wetlands.¹⁶⁸

The CRZ Notifications are another case in point. The 2019 CRZ Notification which superseded the 2011 CRZ Notification allowed for future possibility of intensifying construction activity in urban coastal areas and development of airports in non-arable lands in rural coastal areas. Urbanisation and development increases the threat of flood for an already vulnerable coastal population of 36 million people.¹⁶⁹

Conservation sites such as IBAs represent areas of internal importance for birds and other biodiversity. Close to 40% of IBAs fall outside protected areas and thus form an important tool for 'landscape-level conservation planning'.¹⁷⁰ However, as mentioned in the Draft Visionary Perspective Plan (2020-2030) for the Conservation of Avian Diversity, their Ecosystems, Habitats and Landscapes in the Country, though a small proportion of these non-protected area IBAs enjoy community protection, most of them do not have any conservation action plan or management prescription for their sustenance. IBAs which are outside the protected area network are under severe anthropogenic pressure which leads to destruction of habitats and decline in avian diversity. Therefore, it is important to strengthen conservation and management of key bird habitats outside the protected areas.¹⁷¹

With the ever-increasing push for industrialization, transportation corridors, urbanization and constant endeavour to improve India's rank in

¹⁶⁷ *The Montreux Record and the Ramsar Advisory Missions*, Ramsar, available at <https://www.ramsar.org/sites/default/files/documents/library/info2007-06-e.pdf>, last seen on 11/05/2021.

¹⁶⁸ Supra 166.

¹⁶⁹ Meenakshi Kapoor, *India diluted the law that protects its coastal areas once the public could no longer give inputs*, Scroll.in (11/08/2020), available at <https://scroll.in/article/969922/india-diluted-the-law-that-protects-its-coastal-areas-once-the-public-could-no-longer-give-inputs>, last seen on 26/03/2021.

¹⁷⁰ Ministry of Environment & Forests, Government of India, *India's Fifth National Report to the Convention on Biological Diversity 2014*, available at <https://www.cbd.int/doc/world/in/in-nr-05-en.pdf>, last seen on 26/03/2021.

¹⁷¹ Ministry of Environment, Forest & Climate Change, Government of India, *Draft Visionary Perspective Plan (2020-2030) for the Conservation of Avian Diversity, their Ecosystems, Habitats and Landscapes in the Country*, available at <https://ourgovdotin.files.wordpress.com/2020/03/0-1.pdf>, last seen on 26/03/2021.

the ease of doing business' index- wildlife conservation does not appear to be given higher priority.^{172 173} Dilutions of key environmental regulations such as Environment Impact Assessment Notification, 2006 especially the clauses which relates to protection of wildlife are some concerns raised by environmentalists.^{174 175 176 177 178} Reduced government funding to premiere public institutes and agencies involved in research and conservation of forest and wildlife such as Wildlife Institute of India, Indian Institute of Forest Management, Wildlife Crime Control Bureau and National Tiger Conservation Authority will further weaken the existing foundations for wildlife protection.^{179 180 181}

¹⁷²Ministry of Environment, Forest and Climate Change, *Our focus is promoting ease of doing responsible business: Union Environment Minister*, Press Information Bureau (19/08/2019), available at <https://pib.gov.in/PressReleaseDetailm.aspx?PRID=1582341>, last seen on 11/05/2021.

¹⁷³IndiaSpend, *How Government's Push For Ease Of Doing Business Is Compromising Environment Regulation*, Bloomberg Quint, available at <https://www.bloombergquint.com/law-and-policy/how-governments-push-for-ease-of-doing-business-is-compromising-environment-regulation>, last seen on 26/03/2021.

¹⁷⁴Vindhya Bachao Desk, *Comments & Objections on Draft EIA Notification 2020*, Vindhyan Ecology and Natural History Foundation, available at <https://vindhyabachao.org/publications/reviews/798-review-draft-eia-2020>, last seen on 26/03/2021.

¹⁷⁵S. Janyala, A. Aryan & S. Verma, *NITI Aayog orders study on 'economic impact' of judicial decisions*, The Indian Express (08/02/2021), available at <https://indianexpress.com/article/business/niti-aayog-orders-study-on-economic-impact-of-judicial-decisions-7178976/>, last seen on 26/03/2021.

¹⁷⁶D. Sinha & D. Mehta, *Environmental Clearances and Monitoring in India*, Vidhi Centre for Legal Policy, available at <https://vidhilegalpolicy.in/research/environmental-clearances-and-monitoring-in-india-report-card-for-the-ministry-of-environment-forest-and-climate-change/>, last seen on 26/03/2021.

¹⁷⁷A. Samuel et al., *Review of the EIA Notification 2020*, 55 Economic and Political Weekly (2020), available at <https://www.epw.in/journal/2020/25/letters/review-eia-notification-2020.html>, last seen on 26/03/2021.

¹⁷⁸C. Chauhan, *Prakash Javadekar clears 240 projects in 3 months*, Hindustan Times (11/09/2014), available at <https://www.hindustantimes.com/india/prakash-javadekar-clears-240-projects-in-3-months/story-WCrxd2rhSxQ3ozpOBZ7YiN.html>, last seen on 26/03/2021.

¹⁷⁹C. Chauhan, *Govt. plans to cut funds to 5 autonomous bodies*, Hindustan Times (11/09/2014), available at <https://www.hindustantimes.com/india/prakash-javadekar-clears-240-projects-in-3-months/story-WCrxd2rhSxQ3ozpOBZ7YiN.html>, last seen on 26/03/2021.

¹⁸⁰A. Bhaduri & R. Gupta, *Budget 2021: Environmental conservation or business as usual*, India Water Portal (13/02/2021), available at <https://www.indiawaterportal.org/article/budget-2021-environmental-conservation-or-business-usual>, last seen on 26/03/2021.

¹⁸¹J. Mazoomdaar, *Environment panel against entertaining 'anti-development' representations*, The Indian Express (14/01/2017), available at <https://indianexpress.com/article/india/environment-panel-against-entertaining-anti-development-representations-4473317/>, last seen on 26/03/2021.

VIII. CONCLUSION

The wildlife conservation regime in India is still founded on the WPA. There have been amendments to existing laws to accommodate more areas under the ambit of protection for wildlife, under different legislations such as EPA and Biological Diversity Act, 2002. However, the manner and the pace with which they are done are not sufficient and shows a lack of political will. This is further challenged by the fact that the state governments often see it as political propaganda to jeopardize their economic progress by restricting developmental activities. Many of the ESZs which were supposed to be acting as shock absorbers and wildlife corridors around existing PAs could not see the light of the day, and those which were notified have been kept to the minimum. While the lack of political will is evident from denotification of notified PAs, dilutions of key environmental legislations and lesser financial support to public institutions involved in wildlife conservation-the State will be failing in the constitutional¹⁸² mandate to take all measures necessary to protect the forests and wildlife of the country under public trust doctrine. At the same time, it is the fundamental duty of all the citizens to protect and conserve the areas of wilderness and having compassion for wild animals. In the era, where climate change is a reality and pandemics of zoonotic origins are becoming more common- we must recognize the importance of natural ecosystems as the first line of defense and take immediate policy measures for their long-term conservation.¹⁸³

¹⁸² Art. 48 A, the Constitution of India.

¹⁸³ Art. 51 A (g), the Constitution of India.

POLLUTER PAYS PRINCIPLE IN INDIA: ASSESSING CONCEPTUAL BOUNDARIES AND IMPLEMENTATION ISSUES

**Harshita Singhal & **Sujith Koonan*

ABSTRACT

Polluter Pays Principle (“PPP”) is a widely-applied principle in environmental adjudication in India. At the same time, its conceptual boundaries and the challenges involved in its implementation have received little scholarly attention in the Indian context. This paper seeks to address, at least to some extent, this gap or inadequacy of knowledge through an analysis of judgments of the National Green Tribunal (“NGT”). This paper focuses on three aspects of PPP as emerging from NGT cases. First, it looks at the ways in which the meaning of the terms ‘pollution’ and ‘polluter’ evolved over a period of time through different cases. Second, it examines the methods of calculation of compensation adopted by NGT. Third, the paper analyses the rationale for applying PPP as explained by the NGT in different cases. Overall, the paper highlights inconsistencies and ambiguities in the understanding and application of PPP in India.

I. INTRODUCTION

Polluter pays principle (“PPP”) is a well-recognized principle of environmental law both at the international level¹ and domestic level in India.² At the international level, there are several multi-lateral environmental treaties that have incorporated PPP.³ At the domestic level, PPP is part of environmental law in India at least since the Supreme Court of India (“SC”) declared it to be so in the mid-1990s.⁴ Off late, PPP has been made an explicit part of an environment-related statute through the

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¹ P. Sands & J. Peel, with A. Fabra & R. MacKenzie, *Principles of International Environmental Law* 228 (3rd ed., 2012); N. D. Sadeleer, *Environmental Principles: From Political Slogan to Legal Rules* (2010).

² L. Bhullar, *Polluter Pays Principle: Scope and limits of Judicial Decisions*, 152 in *Indian Environmental Law: Key Concepts and Principles* (Shibani Ghosh, 1st ed., 2019).

³ N. D. Sadeleer, *Environmental Principles: From Political Slogan to Legal Rules* 23-24 (2010).

⁴ See *Indian Council for Enviro-Legal Action v. Union of India*, (1996) 3 SCC 2012; *Vellore Citizens Welfare Forum v. Union of India*, AIR 1996 SC 2715.

adoption of the National Green Tribunal Act, 2010.⁵ Like many other core principles of environmental law, the conceptual boundaries and implementation conundrums related to PPP were to be evolved through its application to different contexts and facts, which in fact occurred in a complex way. In other words, as Prof. Sadeleer has pointed out, ‘the two terms that the principle juxtaposes, “polluter” and “pays” ‘appear self-evident at the first glance but become more elusive as one attempts to define them’.⁶

In this context, this paper examines the way PPP has been understood, elaborated and applied in India in the light of cases decided by the National Green Tribunal (“**NGT**”).⁷ It relies on judgments on PPP by all the benches of the NGT—Principal Bench (New Delhi), Regional Benches in West (Pune), Central (Bhopal), South (Chennai) and East (Kolkata). The time period of the judgments analyzed is from September 2011 to December 2019. The authors have chronologically looked at the judgments collected by using a combination of keywords ‘polluter pays’, ‘polluter pays principle’, ‘liability’, ‘compensation’ and ‘damages’ on two databases, viz, SCC OnLine and Manupatra.

This paper is divided into five sections, in addition to introduction and conclusion. The first section introduces the PPP as propounded both at the domestic level in India and globally. The next section discusses the definitional issues that exist with the principle, particularly the meaning of the terms ‘pollution’ and ‘polluter’. This discussion is made based on the interpretation of the terms in relevant judgments of the NGT. Having discussed what comprises as pollution and who can be the polluters, the next section analyzes various methods that have been adopted by the NGT to calculate compensation due to individual victims as well as the cost for

⁵ S. 20, The National Green Tribunal Act, 2010.

⁶ *Supra* 3, at 14.

⁷ The NGT has attracted the attention of scholars and resultant literature has been emerging on the NGT in general and specifically on the PPP. For a general work on the NGT, see G. N. Gill, *Environmental Justice in India: The National Green Tribunal* (2017). For a specific discussion on the PPP, see C. Bhushan, S. Banerjee & I. Bezbaroa, *Green Tribunal, Green Approach: The Need for Better Implementation of the Polluter Pays Principle*, Centre for Science and Environment (2018), available at <http://www.indiaenvironmentportal.org.in/files/file/green-tribunal-green-approach-report.pdf>; U. Tandon, *Green Justice and the Application of Polluter-Pays Principle: A Study of India's National Green Tribunal*, 13 OIDA Journal of Sustainable Development 35-46 (2020).

restitution of damaged property and environment by the polluters in cases of pollution. These range from the principle of guesswork or rough estimation due to lack of required data to formation of high-powered committees to determine the compensation to exactitude. The final section discusses the judgments in which the NGT has ventured beyond the restorative purpose of PPP and has expanded the scope of PPP to include punitive purposes as well. This is followed by the concluding section that captures the major discussions in the paper.

II. PPP AS A LEGAL PRINCIPLE IN INDIA

The PPP is based on the idea of cost allocation and cost internalization, that is, the external costs of production and/or consumption of goods and services should be allocated to the polluter responsible for the pollution rather than to the government or to the members of the public.⁸ It means the polluter must bear the expenses of carrying out measures decided by public authorities to ensure that the environment is in an acceptable state. It also includes the cost of paying compensation to the victims of pollution.

In India, PPP has been made a part of environmental law first by the higher judiciary and subsequently through its statutory recognition in the National Green Tribunal Act, 2010. *Indian Council for Enviro-Legal Action v. Union of India*⁹ (“**Bichhri**”) was the first case where PPP was applied by the SC. This case dealt with the adverse environmental health impacts of water and soil pollution in Bichhri and its surrounding villages in the State of Rajasthan on account of dumping of untreated wastewater and sludge by chemical industries. The SC observed that once the activity carried on is hazardous or inherently dangerous, the person carrying on such activity is liable to make good the loss caused to any person by his activity irrespective of the fact whether he/she had taken reasonable care while carrying on the activity. The Court recognized that the polluter was liable for making good any damage caused to the environment through its act.

⁸ *Supra* 4, at 35-37.

⁹ *Indian Council for Enviro-Legal Action v. Union of India*, (1996) 3 SCC 212.

Subsequently in *Vellore Citizens' Forum v. Union of India and Ors.*¹⁰, a case against the discharge of untreated effluent by tanneries in the State of Tamil Nadu into a nearby river and land, the SC relied on the constitutional mandate¹¹ to protect and improve the environment to hold that the PPP is part of the domestic environmental law in India.¹² The Court also relied upon customary international law¹³ and read PPP as an essential feature of sustainable development.¹⁴ Both these cases have been relied upon in several decisions¹⁵ thereafter by courts in India which shows that the principle has been incorporated into domestic environmental jurisprudence in India.

In 2010 with the enactment of the National Green Tribunal Act, 2010¹⁶ (“NGT Act”), a specific forum was created for addressing environmental disputes in India. The concept of PPP here, received a statutory recognition.¹⁷ The NGT Act explicitly states PPP as a guiding principle while passing any order, decision or award by the NGT.¹⁸ The relief, compensation and restitution that the NGT may award under this statute is defined in terms of compensation to the victims of the pollution and environmental damage, restitution of property damaged and of the environment.¹⁹ Pertinent questions related to the lived experience of the principle are—how the term ‘pollution’ and consequently the term ‘polluter’ have been understood while applying PPP? What methods have been applied to determine the quantum of compensation? Whether the underlying objective of PPP has been exclusively restitutive in nature or punitive as well? What mechanisms have been adopted to ensure the

¹⁰ *Vellore Citizens' Forum v. Union of India and Ors.*, (1996) 5 SCC 647.

¹¹ Arts. 48-A & 51-A(g), the Constitution of India.

¹² In *Bichhri*, the Court referred to Articles 48A and 51-A(g) however, the PPP was not read into them.

¹³ *Vellore Citizens Welfare Forum v. Union of India*, AIR 1996 SC 2715.

¹⁴ This principle, as explained in the Brundtland Report [1987], is most commonly defined as development that meets the needs of the present without compromising the ability of the future generations to meet their own needs. It requires meeting the basic needs of all and extending to all opportunity to satisfy their aspirations for a better life.

¹⁵ *M.C. Mehta v. Kamal Nath*, AIR 1997 SC 388; *M.C. Mehta v. Union of India*, AIR 1997 SC 734; *S. Jagannath v. Union of India*, AIR 1997 SC 811.

¹⁶ The NGT was established on 18th October, 2010, vide notification No. S.O 2569(E) under the National Green Tribunal Act, 2010.

¹⁷ S. 20, The National Green Tribunal Act, 2010.

¹⁸ *Ibid.*

¹⁹ S. 15, The National Green Tribunal Act, 2010.

receipt of compensation by deserving individuals or victims of environmental pollution? How has the payment by polluters been used for the purpose of restoration of the environment? The remaining part of this paper critically addresses and analyses some of these questions in the light of cases decided by the NGT.

III. POLLUTION, POLLUTER AND DEFINITIONAL ISSUES

The application of PPP is contingent on defining pollution and identifying one or more polluters. The term ‘pollution’ as defined in three major pollution related laws in India (The Environment Protection Act, 1986²⁰, The Water (Prevention and Control of Pollution) Act, 1974²¹ and The Air (Prevention and Control of Pollution) Act, 1981²²) which prescribe certain constitutive elements—presence of ‘any solid, liquid or gaseous substance present in such concentration as may be, or tend to be, injurious to environment; such concentration ‘may be or tend to be injurious to human being or other living creatures or plants or property or environment’; and such presence that ‘may, or is likely to, create a nuisance or render such water harmful or injurious to public health or safety, or to domestic, commercial, industrial, agricultural or other legitimate uses, or to life and health of animals or plants or aquatic organisms.’

Thus, ‘pollution’ in law is distinct from pollution as understood in common parlance. It requires a certain level of ‘concentration’ of pollutants and must be ‘injurious’ to human beings, their property or the environment. The threshold limit of this ‘concentration’ of pollutants is supposed to be fixed on the basis of scientific information and analysis. To put it differently, environmental law in India does not venture to keep the environment to an imagined historical quality. Instead, it seeks to prescribe a level of reasonable tolerance probably because of the understanding that virtually every action of human beings has implications for environment in one way or other. Understanding the legal meaning of the term ‘pollution’ in this way may require any legal forum, including the NGT, to first ascertain the

²⁰ S. 2(c), The Environment Protection Act, 1986.

²¹ S. 2(e), The Water (Prevention and Control of Pollution) Act, 1974.

²² S. 2(b), The Air (Prevention and Control of Pollution) Act, 1981.

‘pollution’ and ‘polluter’ by following the legal definition in order to apply PPP. The practice of the NGT, however, does not show such a systematic singular pattern in determining the ‘pollution’ and ‘polluter’. The practice seems to be complex with multiple ways of applying the terms ‘pollution’ and ‘polluter’.

There is a set of cases that show a peculiar practice of treating certain activities as ‘deemed to be polluting’ and the NGT has applied PPP in such cases. In *Dr. Karan Singh v. State of Himachal Pradesh*²³, the NGT directed that,

[T]he Municipal Corporation of Shimla and Solan may consider the collection of proper monetary contribution for disposal of Municipal Solid Waste (MSW) depending on the kind and size of the houses on the principle of “Polluter Pays” and charge such amounts as it may deem fit to the households within their limits.²⁴

In *Kamal Anand v. State of Punjab*²⁵, the corporation was directed to charge every household, shop, hotel or any industrial building to pay the specific amount along with the property tax payable for the property, or on monthly basis, whichever is permitted by the concerned authorities based on PPP. Similarly, in *Manoj Misra v. Union of India*²⁶, a case against pollution in river Yamuna, the NGT granted liberty to the Corporation and the Delhi Jal Board to collect funds from the general public based on PPP. It added that the safest criteria for determining the quantum of environmental compensation payable by people of Delhi would be the certain percentage of the property/house tax payable by an individual.

In *Court on its own motion v. State of Himachal Pradesh*,²⁷ the NGT created a specific fund called the ‘Green Tax Fund’ to ensure proper development for protecting the environment in all its spheres. Through this, the NGT required the persons who were travelling by public or private vehicles to the glacier of Rohtang Pass to pay a reasonable sum of money of Rs. 100 for heavy vehicles and Rs. 50 for light vehicles as a contribution based on

²³ *Dr. Karan Singh v. State of Himachal Pradesh*, 2013 SCC OnLine 884.

²⁴ *Ibid.*

²⁵ *Kamal Anand v. State of Punjab*, 2014 SCC OnLine NGT 6893.

²⁶ *Manoj Misra v. Union of India*, 2015 SCC OnLine NGT 840.

²⁷ *Court on its own motion v. State of Himachal Pradesh*, 2014 SCC OnLine NGT 1.

PPP. It also imposed Rs. 20 per tourist travelling through CNG or electric buses to Rohtang pass as tourists.

These and other similar cases²⁸ show that the NGT has adopted the approach of ‘deemed to be polluting’. The application of PPP in each of the above cases shows that it is not contingent on a particular threshold for pollution being crossed by the concerned entities or individuals. For instance, despite of the fact that vehicles plying on the road, largely, have a pollution clearance certificate, the NGT directed them to pay for the pollution they cause. In the case of Rohtang Pass, the Court directed all users of all kinds of vehicles (including electric vehicles) plying in the region to deposit a sum in the Green Tax Fund. In as much as adoption of the theory is a welcome step, for the purpose of achieving complete internalization of such costs, these measures must not be restricted to ecologically sensitive regions as seen in the case of *Court on its own motion v. State of Himachal Pradesh*²⁹. They must rather be imposed on every vehicle plying on the road for the very reason that their plying on the roads will cause pollution in the environment. This view is further complemented by the fact that natural resources such as air and water cannot be defined to be limited to a particular territory or region in that sense and in the long run the consequences of their exploitation are to be borne by everyone. An example of such cost internalization is seen in *Kamal Anand v. State of Punjab*³⁰ where every household, shop, hotel or any industrial building due to their very nature that they generate waste was required to deposit a particular sum just like house/property tax.

Overall, this approach is not based on any legal definition of pollution, instead on the basis of an assumption of the inherent polluting nature of certain activities and the consequent application of PPP. In other words, it may be difficult in many of these cases, if not all, to establish ‘pollution in law’. Another key feature of these cases is that they are of continuing

²⁸ See *Subhas Dutta v. Union of India*, 2018 SCC OnLine NGT 345; *Manoj Misra v. Union of India*, 2015 SCC OnLine NGT 840; *Almirah H. Patel v. Union of India*, 2015 SCC OnLine NGT 679; *All Dimasa Students Union Dima Hasao District Committee v. State of Meghalaya and Ors.*, 2015 SCC OnLine NGT 697.

²⁹ *Court on its own motion v. State of Himachal Pradesh*, 2014 SCC OnLine NGT 1.

³⁰ *Kamal Anand v. State of Punjab*, 2014 SCC OnLine NGT 6893.

nature, as opposed to one-off incidents such as industrial accidents. In addition to that, there is no one or more identifiable polluters in these cases. The process of pollution in such cases is continuous, incremental and decentralized. It appears that the NGT has evolved a practice of applying PPP to cases of continuous, incremental and decentralized pollution without engaging with the question of violation of rules involved.

There are also cases where the NGT has emphasised the fact of pollution and then proceeded to apply PPP. For instance, in *Samir Mehta v. Union of India*,³¹ a case of accidental oil spill in ship M.V. Rak Carrier in the Arabian Sea, the NGT relied on damage to the mangroves and marine ecology in the Bombay coast due to the oil spillage. Similarly, in *Kasala Malla Reddy v. State of Andhra Pradesh*³² the NGT highlighted groundwater and air pollution due to industrial units.

In certain cases,³³ the NGT has taken violation or non-compliance with laws as a valid condition to apply PPP. For instance, in *Gurpreet Singh Bagga v. Ministry of Environment and Forests and Ors.*³⁴ the NGT directed the respondent companies to pay money for running mining activities in an unauthorized manner, without Environmental Clearance (“EC”) and consent by the concerned State Pollution Control Board (“SPCB”). Similarly, in *The Proprietor M/s. Varuna Bio Products v. The Chairman Tamil Nadu Pollution Control Board*, a chemical industry was alleged to be operating without obtaining the required consent. The NGT observed that even though no effluents were discharged by the operation of the unit, it was operating without obtaining the required consent. The NGT, therefore, directed the offending industry to pay an amount of Rs. 25000 under PPP. It appears that mere violation of law was treated as sufficient to apply PPP regardless of damages to individuals, their property or the environment.

There are mainly three patterns visible from the above-discussed cases. First, certain activities which are continuing in nature and where there is no identifiable polluter or small group of polluters, the NGT has treated

³¹ *Samir Mehta v. Union of India*, 2016 SCC OnLine NGT 479.

³² *Kasala Malla Reddy v. State of Andhra Pradesh*, 2017 SCC OnLine NGT 1914.

³³ See *T. N. Godavarman Thirumulpad v. Union of India*, 2016 SCC OnLine NGT 1196

³⁴ *Gurpreet Singh Bagga v. Ministry of Environment and Forests and Ors.*, 2016 SCC OnLine NGT 92.

them as ‘deemed to be polluting’ and applied PPP without ascertaining whether such activities fit within the legal definition of pollution. Many of these activities are probably without any violation of environmental laws, although they may be polluting in fact. Second, there are obvious cases of pollution such as oil spillage incidents where damage to the environment has been explicitly recognised. Third, there are cases where the NGT has underlined explicitly that there was no discharge by the respondent company, still PPP was applied on the ground that the respondent company was in violation of environmental law norms.

While the idea of getting all polluters to pay for pollution seems progressive, it needs to be underlined that such a practice must not lead to the emergence of a ‘right to pollute’ for those who are able or willing to pay. In other words, the ultimate goal is not to have a heavy green fund or more instances of application of PPP, but an eco-friendly mode of life which necessarily involves a dramatic change in the modes of production and consumption that are prevalent now.

IV. CALCULATION OF COMPENSATION: SEARCHING FOR A CONSISTENT METHOD

Calculation of compensation is the next important step once the question of pollution and polluter is answered affirmatively. The cost to the polluter may include compensation to individual victims as well as the cost for restitution of damaged property and environment. The ideas of compensation and restitution presupposes the need for measuring the damages. It is also expected that the payment by the polluter under PPP is proportionate to the measured damages. However, the practice followed by the NGT shows a different scenario where measurement of damages is hardly undertaken or relied upon for various reasons.

In *Samir Mehta v. Union of India*³⁵, the NGT held respondent companies responsible for oil spill and pollution caused by sinking of the ship. It was observed that the ship was not in a seaworthy condition. The NGT noted that there are multiple sources of pollution, resulting from oil spill, sinking

³⁵ Supra 31.

of the ship and its cargo. They affect the marine environment that includes sea water, aquatic life, shore, sea bed, mangroves, tourism and public life of the people living at the shore and the adverse impacts are also seen at multiple beaches. However, the NGT found it difficult or impossible to measure the damages for the purpose of applying PPP. It was held that:

The damage caused by pollution, cannot be computed in terms of money with exactitude and precision. This has to be on the basis of some hypothesizing or guess work as in necessary to be applied in such cases. For instance, damage caused to the aquatic life, mangroves, sea shore and tourism are incapable of being computed exactly in terms of money.³⁶ (emphasis added)

The NGT has admitted that the environmental damages are incapable of being measured in terms of money with ‘exactitude and precision’, therefore it supported the method of ‘hypothesizing or guess work’. By following this method, the NGT arrived at an amount of Rs.100 crores. Besides the monetary compensation imposed, all the respondent companies were held jointly and severally liable for removing the ship wreck and cargo from its present location.

In *Deshpande Jansamsaya Niwaran Samiti v. State of Maharashtra*,³⁷ the NGT relied on guesswork and observed that ‘in the absence of factual information available the Tribunal has to decide on guess work (uncertainty) about the environmental damages’.³⁸ The NGT justified the method of guesswork as out of helplessness by stating the fact that the responsible agencies failed to provide necessary data and information to it. The NGT had sought details of air and water quality assessment by the Maharashtra Pollution Control Board (“MPCB”) to ascertain the environmental damage and impact caused due to non-compliance in operations of Municipal Solid Waste. However, the MPCB failed to furnish it. In order to address such problems in future, the NGT urged the MPCB through its Chairperson to develop a specialized group within the

³⁶ Ibid, at 136.

³⁷ *Deshpande Jansamsaya Niwaran Samiti v. State of Maharashtra*, 2014 SCC OnLine NGT 1310.

³⁸ Ibid.

organization which would focus on scientific and technological research, analysis and interpretation of environmental data, new and clean technologies, besides scientific dissemination of information. Here the NGT did not follow the understanding that the damages were incapable of being assessed, but relied on guesswork for not being supplied with adequate information to assess damages by competent agencies.

Similarly, in *Gurpreet Singh Bagga v. Ministry of Environment and Forests and Ors.*³⁹ the NGT was forced to apply the principle of guesswork while resolving the issue, as despite the directions of the Court, both governments of State of Haryana and State of Uttar Pradesh failed to place on record any report which defined the damage caused due to the wrongful acts (illegal sand mining in district Saharanpur more particularly on the river banks and bed of river Yamuna) and the exact money that would be required for restoration, restitution and revitalization of the environment, ecology and bio-diversity with particular reference to river Yamuna. While applying the principle of guesswork in determining the compensation the NGT observed that, while 'it is not possible to determine such liability with exactitude but that by itself would not be a ground for absolving the defaulting parties from their liability'. Therefore, on approximate basis using the available documentary evidence and reports a sum of Rs. 50 crores were imposed on each of the respondents who were carrying on the extraction of minerals and Rs. 2.5 crores on each of the stone crushers/screening plants which had been running illegally, in an unauthorized manner for continuous defaults and violation of the laws and specific terms and conditions of the EC and for their operation without consent of the concerned authorities including the SPCB.

The method of guesswork does not seem to be uncommon. It has been applied in other cases too.⁴⁰ At the same time, the method of guesswork or approximation does not seem to be NGT's invention. In fact, the NGT

³⁹ *Gurpreet Singh Bagga v. Ministry of Environment and Forests and Ors.*, 2016 SCC OnLine NGT 92.

⁴⁰ See *Deshpande Jansamsaya Niwaran Samiti v. State of Maharashtra*, 2014 SCC OnLine NGT 1310; *Gurpreet Singh Bagga v. Ministry of Environment and Forrest and Ors.*, 2016 SCC OnLine NGT 92; *T. N. Godavarman Thirumulpad v. Union of India and Ors.*, 2016 SCC OnLine NGT 1196; *Jalbiradari v. Ministry of Environment and Forrest*, 2016 SCC OnLine NGT 168; *Samir Mehta v. Union of India*, 2016 SCC OnLine NGT 479.

validates the application of this method by relying on the SC's decision in *A.P. Pollution Control Board v. Prof. M.V. Nayudu (Retd.)*⁴¹ and notes that the principle of 'limited' guesswork is an 'accepted principle'. The SC observed that uncertainty is a problem when scientific knowledge is institutionalized in policy making or is used as a basis for decision making by agencies or courts. Where the scientists have a liberty to modify variables or models when more information is available, the agencies and courts have to make decisions based on existing data. In as much as it is being accepted that it is difficult for the NGT to take decisions in the absence of any tool to assess the damages (lack of reports by the State governments in this case), there exists a need for the Tribunal to find alternatives.

The method of guesswork or approximation is not the only method of calculation the NGT has relied on. There are at least two other methods. First, in certain cases,⁴² the size of the respondent company was taken into consideration. For instance, in *The Proprietor M/s. Varuna Bio Products v. The Chairman Tamil Nadu Pollution Control Board*⁴³ and *C. Murugan v. Member Secretary Karnataka*⁴⁴, the NGT apparently determined the amount of compensation by taking into consideration the size of the company.

Second, in certain cases the NGT has calculated the compensation on the basis of the cost of the project in question. In *Tanaji Balasaheb Gambhire v. Union of India*,⁴⁵ the Applicant has sought directions against M/s. Goel Ganga Developers India Private Limited, who were alleged to have constructed a commercial and residential complex. The applicant sought directions to demolish the illegal structures at the site in question and restore the area to its original position. The NGT found truth in the allegations made and directed the respondent, M/s. Goel Ganga Developers India Private Limited to pay environmental compensation cost

⁴¹ *A.P. Pollution Control Board v. Prof. M.V. Nayudu (Retd.)*, (1999) 2 SCC 718.

⁴² See *Forward Foundation v. State of Karnataka*, 2015 SCC OnLine NGT 5; *Tanaji Balasaheb Gambhire v. Union of India*, 2016 SCC OnLine NGT 4213; *S.P. Muthuraman v. Union of India*, 2015 All (I) NGT Reporter (2) Delhi 170; *Manoj Misra v. Union of India and Ors.*, 2015 SCC OnLine NGT 840; *Krishan Lal Gera v. State of Haryana*, 2015 SCC OnLine NGT 194; *Krishnan Kant Singh v. National Ganga River Basin Authority and Ors.*

⁴³ *The Proprietor M/s. Varuna Bio Products v. The Chairman Tamil Nadu Pollution Control Board*, 2015 SCC OnLine NGT 138.

⁴⁴ *C. Murugan v. Member Secretary Karnataka*, 2015 SCC OnLine NGT 8.

⁴⁵ *Tanaji Balasaheb Gambhire v. Union of India*, 2016 SCC OnLine NGT 4213.

of Rs. 100 crores or 5 per cent of the total cost of the project to be assessed by the State Level Express Appraisal Committee (“SEAC”) whichever is less for restoration and restitution of environment damages and degradation caused by the project by carrying out the construction activities without the necessary prior environmental clearance within a period of one month. In addition, Rs. 5 crores were required to be paid for contravening mandatory provisions of several environment laws in carrying out the construction activities, exceeding limit of the available environment clearance and for not obtaining the consent from the Board. The NGT further imposed fine of Rs. 5 Lakhs upon the Pune Municipal Corporation (“PMC”) and directed the Commissioner PMC to take appropriate action against the erring officers.

In a review application⁴⁶ the NGT held the order to be erroneous for two reasons. First, it was observed that the Tribunal had come to a conclusion that the project proponent must be saddled with exemplary and deterrent compensation (more than the estimated compensation) but had adopted a soft approach later. *Secondly*, estimating the cost on the lower side, i.e. Rs. 100 crores or 5 per cent of the total cost of the project whichever is lower, the Tribunal was undermining the rigour of the law of the land. Therefore, after calculating the damages in terms of Carbon Foot Print⁴⁷ as amounting to 190 crores, the direction was modified to Rs. 190 crores or 5 per cent of the total cost of the project to be assessed by SEAC whichever is more.

In an appeal against both the above orders, the SC rejected both the grounds provided by the review court to fix the compensation. The SC refused to impose special damages on the basis that this was not a public interest litigation as the applicant was also one amongst those who had applied for a flat with the project proponent and was therefore an

⁴⁶ Tanaji Balasaheb Gambhire v. Union of India, 2018 SCC OnLine NGT 302.

⁴⁷ It means Carbon dioxide units which were added to the environment in the process of releasing energy necessary for production of material used in development. The Tribunal acknowledged that the concept of Carbon Foot Print does not find place in the EIA Manual, MOEF/SEIAA Guidelines for presentation of standard terms of reference, Environment (Protection) Act, 1986 and Rules framed thereunder, Environmental Clearance Regulations, 2006 and amendments thereto and National Green Tribunal Act, 2010 and Rules framed thereunder, but this does not per se lessen its importance in computation of environmental compensation without giving thought to its scientific merits.

interested party. With regard to the question of assessment on damages on basis of carbon foot print the SC observed that the courts cannot introduce a new concept of assessing and levying damages unless expert evidence in this behalf is led or there is some well-established principle. It added that this evidence is used to compensate and impose damages on nations but the court cannot apply the method while imposing damages on persons who violate Environment Clearance and this method is not part of any law, rule or executive instructions. Finally, the court ordered the compensation required to be paid by the respondent, M/s. Goel Ganga Developers India Private Limited would be Rs. 100 crores or 10 per cent of the project cost, whichever is higher, on the project proponent.

In other decisions⁴⁸ where the payment was made contingent on the size of the industry or project by the NGT, it has relied on the SC's decision in the case of *Goa Foundation v. Union of India*⁴⁹ where the Court directed the respondents to deposit 10 per cent of the value of the mineral extracted at the first instance. Reliance has also been placed on *Sterlite Industries India Ltd. v. Union of India*⁵⁰ where notional damages based on 5 per cent of the capital cost were imposed as there did not exist enough material to enable the Tribunal to compute damages based on exactitude. In five such cases,⁵¹ the fine imposed was at the rate of 5 per cent of the cost of the project. Such penalties were quoted as the initial amount of deposit to be made by the polluting industries (notional damages); however, this percentage remained unchanged even in the final order/judgment delivered by the Tribunal based on committee reports.

It is to be noted that the NGT has also relied upon methods other than awarding compensation. In a series of cases,⁵² the NGT has refrained from

⁴⁸ *Forward Foundation v. State of Karnataka*, 2015 SCC OnLine NGT 5; *Tanaji Balasaheb Gambhire v. Union of India*, 2016 SCC OnLine NGT 4213; *S.P. Muthuraman v. Union of India*, 2015 All (I) NGT Reporter (2) (Delhi) 170; *Manoj Mishra v. Union of India and Ors.*, 2015 SCC OnLine NGT 840; *Krishan Lal Gera v. State of Haryana*, 2015 SCC OnLine NGT 194.

⁴⁹ *Goa Foundation v. Union of India*, (2014) 6 SCC 590.

⁵⁰ *Sterlite Industries India Ltd. v. Union of India*, 2013 4 SCC 575.

⁵¹ *Supra* 48.

⁵² See *Jagat Narayan Viswakarma v. Union of India*, 2014 SCC OnLine NGT 2685; *Shiv Prasad v. Union of India*, 2014 SCC OnLine NGT 3044; *Manoj Misra v. Union of India*, 2015 SCC OnLine NGT 840; *Manoj Misra v. Delhi Development Authority and Ors.*,

quoting a particular amount of compensation and instead ordered the remedial steps to be undertaken by the polluter to restore the environment and make good the loss caused to the ecology. These steps include installation of pollution control devices. Remedial steps or restoration of the environment, even though different from imposition of monetary compensation, is indeed a goal of PPP.

In *Jagat Narayan Viswakarma v. Union of India*,⁵³ the NGT directed the Chief Secretaries of State of Uttar Pradesh and State of Madhya Pradesh to direct all the large industries operating in that area including and particularly the thermal power plants to provide, install and commission reverse osmosis plants of reasonable capacity commensurate with the local demands to ensure supply of uncontaminated drinking water to all the affected villages which are located in the critically polluted areas by invoking the PPP. This is an application of PPP as the industries were asked to remedy the damage caused to the water by their discharge of effluents. Similarly, in *Shiv Prasad v. Union of India*,⁵⁴ the NGT directed the SP of the concerned districts and the Deputy Commissioner to ensure that the entire slag stored in the river or on the river bed is removed at the cost of all industries located in this industrial pocket.

All the three methods explained above do not go well with the underlying objective of restitution as understood in civil law. While the method of guesswork or approximation is patently irreconcilable with the idea of restitution, the imposition of higher penalties on larger size industries may create a problem in situations where the damage caused by them may be minimal and vice versa. The whole concept of cost internalization through the mechanism that the external costs of production and/or consumption of goods and services are allocated to the polluter responsible for the pollution rather than to the government or to the members of the public is defeated. Therefore, such imposition has no rationale with the object of the recognition of the PPP and requires reconsideration. While, the NGT

2017 SCC OnLine NGT 966; *We the People, The General Secretary v. Union of India*, 2018 SCC OnLine NGT 1824.

⁵³ *Jagat Narayan Viswakarma v. Union of India*, 2014 SCC OnLine NGT 2685.

⁵⁴ *Shiv Prasad v. Union of India*, 2014 SCC OnLine NGT 3044.

has justified these methods on pragmatic grounds, the question is whether pragmatism may be allowed to undermine the consistency and rule of law basis of the process of environmental adjudication in India?

V. RESTORATIVE AND PUNITIVE PURPOSES OF PPP

PPP, as understood in the context of environmental law in India, seeks to impose the financial burden on polluters to compensate the victims, damages to their property and environmental damages. A plain understanding of PPP, therefore, will place it in civil law and understandably serves restorative purpose. Most of the cases discussed above, indeed, promote such an understanding of PPP where the responsibility of the polluter is discussed in terms of remedying the damages to persons and the environment. However, there are cases where the NGT has expanded the scope of PPP to include punitive purpose as well.

The NGT, in *T.N. Godavarman Thirumulpad v. Union of India and Ors.*,⁵⁵ explicitly underlined the ‘twin objectives’ of payment of compensation by polluters, vis, compensating the victims of the loss they suffered and infliction of punitive consequences on the defendants. In *Tanaji Balasaheb Gambhire v. Union of India*,⁵⁶ the NGT imposed on defendant company Rs. 5 crores for contravening mandatory provisions of several environment laws in carrying out the construction activities, exceeding limit of the available environment clearance and for not obtaining the consent from the Board. This was in addition to the environmental compensation imposed. The NGT has also endorsed the idea of using PPP to saddle the polluters with ‘exemplary and deterrent compensation’.⁵⁷ In *Lakhan Singh v. Rajasthan State Pollution Control Board and Ors.*⁵⁸ the NGT imposed a penalty to the extent of one per cent of annual gross turnover on all the

⁵⁵ *T.N. Godavarman Thirumulpad v. Union of India and Ors.*, 2016 SCC OnLine NGT 1196.

⁵⁶ *Tanaji Balasaheb Gambhire v. Union of India*, 2016 SCC OnLine NGT 4213.

⁵⁷ *Tanaji Balasaheb Gambhire v. Union of India*, 2018 SCC OnLine NGT 302.

⁵⁸ *Lakhan Singh v. Rajasthan State Pollution Control Board and Ors.*, 2016 SCC OnLine NGT 4178.

non-complaint units in RIICO Industrial Area Kaladera, Tehsil Chomu, District Jaipur on PPP.

The NGT's expansive understanding of PPP seems akin to the SC's expansive interpretation of liability in cases of hazardous industries and activities. While recognising the principle of absolute liability in the context of hazardous or inherently dangerous industries, the SC accepted the deterrent objective as well. It was held that *"the measure of compensation... must be co-related to the magnitude and capacity of the enterprise because such compensation must have a deferent effect. The larger and more prosperous the enterprise, the greater must be the amount of compensation payable by it..."*⁵⁹ The NGT seems to be carrying forward this understanding endorsed by the SC in the late 1980s.

VI. CONCLUSION

The application of PPP by the NGT is characterised with inconsistent practices. It appears that the NGT adopts a 'pollution in fact' meaning instead of 'pollution in law' in many instances because there is hardly any discussion to ascertain whether the alleged pollution in question falls within the legal definition of pollution as provided in environmental statutes. There are also cases where compensation was imposed by invoking PPP even when the NGT had not found any instance of pollution.

Fixing the quantum of compensation is another key controversial area. An analysis of NGT judgments show a shift in the assessment of damages from an approach based on mere guesswork to the appointment of expert committees to evaluate the loss and cost of remediation. Further, on multiple occasions, the NGT has adopted an alternative approach of specifying the acts to be undertaken by the polluter as against the imposition of compensation. It appears that the NGT has also promoted a shift by internalizing the cost through the imposition of fees/spot fines/appropriate policy mechanisms to be developed by local authorities. In a particular case,⁶⁰ the NGT went to the extent of rewarding those

⁵⁹ M.C. Mehta v. Union of India, AIR 1987 SC 1086.

⁶⁰ Almitra H. Patel v. Union of India, 2015 SCC OnLine NGT 679.

complying with the pollution norms with a 10 per cent rebate on house/property tax.

While such an approach is welcome, there exists an increased need for the NGT to adopt a uniform mechanism for the estimation of compensation to be awarded to the victims and for remediation of the damaged environment. The shift of the NGT to refer determination of compensation to experts is also a step forward. Effective utilization must also be made of the experts in the panel of judges determining such disputes since the whole purpose of the establishing the NGT was to allow specialized personnel in the field to bring their knowledge in multidisciplinary issues relating to the environment onboard.

Finally, there exists a need to assess whether adequate compensation is reaching the victims of pollution at all.⁶¹ Rule 35(4) of the National Green Tribunal (Practice and Procedure) Rules, 2011 requires a separate account to be created and maintained by the fund manager in order to receive and disburse amounts pursuant to orders or awards of the NGT. However, a report⁶² points out that the Fund Manager has not kept any separate account for contributions to the Environment Relief Fund as a result of awards or orders made by the NGT for compensation or relief for environmental damage. This raises questions as to the actual impact of PPP in restoration of environment.

It appears that PPP is being applied liberally and for multiple purposes. At the same time, there is a shadow of doubt as to its positive impacts on restoration of the environment and remediation of damages to individuals and their property. There seems to be a significant gap between what PPP promises and what has actually been achieved in reality.

⁶¹ Gyan Prakash v. Ministry of Environment, Forest and Climate Change (“MoEF&CC”), O.A. No. 86 of 2020, filed before the NGT, highlighted the non-utilization of more than Rs.eight hundred crores meant towards the Environment Relief Fund under both the Public Liabilities Insurance Act, 1991 and the NGT Act, 2010. The NGT directed the MoEF&CC, being the nodal Ministry, to take necessary action for disbursement of funds.

⁶² D. Sinha, *The Management of Environment Relief Fund*, Vidhi Centre for Legal Policy (2020), available at https://vidhilegalpolicy.in/wp-content/uploads/2020/06/Management_of_ERF_Debadityo_Sinha_VCLP_2020.pdf.

EVOLVING A LEGAL FRAMEWORK FOR CLIMATE-INCLUSIVE AGRICULTURE: EXPLORING REGULATORY INSIGHTS FROM FOREIGN JURISDICTIONS

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ABSTRACT

In recent times, there has been extensive media coverage and public attention on some major controversial issues in the Indian agricultural sector such as fragmented land holdings, distorted agricultural marketing and the newly introduced agricultural acts. However, there remains one conspicuously neglected issue – the interlinkages between climate change and agriculture. Unfortunately, this is the state of play despite the fact that India is the third largest emitter of greenhouse gases (“GHG”) globally, of which the agricultural sector accounts for nearly 16% of the GHG emissions. On the legal front, there is very limited analysis and literature on how the agricultural laws and policies support and ensure inclusivity of climate change considerations. So, this article focuses on this legal gap and investigates whether the existing Indian framework adequately includes measures to tackle future climate change challenges to the agricultural sector. Through this exploration, the article highlights the parochial approach taken by the Indian legislators and policy makers so far in designing agricultural laws and policies without paying adequate attention to the significance of including climate change elements.

Broadly, the article analyzes the existing Indian agricultural laws and policies and highlights the inadequacies or absence of climate change elements in those laws and policies. Specifically, the paper focuses on illustrations from some leading countries that have prepared themselves for climate change challenges by incorporating climate-inclusive solutions into their legal and policy instruments in the agricultural sector. Through these global illustrations, the article recommends possible reforms that could be brought in the

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current and future Indian agricultural laws and policies and make it more climate-inclusive. Overall, the article hopes to set the stage for sparking a progressive thought process among relevant stakeholders to develop climate-inclusive agricultural laws and policies that could contribute to the global efforts to avert a future climate crisis.

I. INTRODUCTION

Climate change and agriculture are inevitably interlinked, both in terms of being the cause of and consequences for each other. On one hand, there is robust evidence that climate change jeopardizes the agricultural sector in multifarious ways,¹ including exacerbating extreme weather events, accelerating land degradation processes, affecting food security and nutrition,² and creating an influx of new pests and diseases³. On the other hand, it is proven that the agricultural sector is one of the highest contributors and primary drivers of climate change.⁴

Despite this conspicuous linkage, not all the national legal frameworks give serious attention to include legal provisions, policies and measures intended to combat climate change in the agriculture sector.⁵ Predominantly, most of the national laws, regulations and policies in the agricultural sector across the globe focus on regulating conventional facets of farming and land sectors such as “*crop and livestock production, plant and*

¹ *Agriculture and climate change – Law and governance in support of climate smart agriculture and international climate change goals*, FAO Legislative Studies, 11, No. 115, Food and Agriculture Organization of the United Nations (2020), available at <https://doi.org/10.4060/cb1593en>, last seen on 03/03/2021; Plural authoritative scientific sources confirm that human influence on the climate system is clear and that recent anthropogenic emissions of greenhouse gases are the highest in history, with widespread impacts on human and natural systems.

² *Climate Change and Land: Summary for Policymakers*, 10, Intergovernmental Panel on Climate Change (2020), available at https://www.ipcc.ch/site/assets/uploads/sites/4/2020/02/SPM_Updated-Jan20.pdf, last seen on 12/02/2021.

³ K. Kritee, et al., *Climate smart farming in India: A pathway to poverty alleviation, food security, and climate adaptation and mitigation*, Environmental Defense Fund, 4 (2019), available at <https://www.edf.org/sites/default/files/documents/Climate-smart-agriculture-India-EDF-report.pdf>, last seen on 14/03/2021.

⁴ See Supra 1, at 8 (“About 23% of the total human induced emissions of greenhouse gases (GHGs) globally is from the agricultural sector, together with forestry and other land use”); FAOSTAT: *Emission shares*, Food and Agriculture Organization of the United Nations, available at <http://www.fao.org/faostat/en/#data/EM>, last seen on 03/03/2021 (The latest data from the FAO reports that the share of greenhouse gas (GHG) emissions from aggregate agriculture-related activities along the supply chain, and including agriculture-related land use, was 19.8 percent of total GHG emissions in 2017).

⁵ Supra 1, at 9.

animal health, agriculture processing and industry, farming rights, tenure rights, agricultural infrastructure, investment, finance, credit and economic incentives, research, intellectual property, and trade”,⁶ and rarely address climate change. Although these goals are paramount to be achieved by agricultural laws and policies, it is crucial to prioritize adaptation and mitigation measures for climate change. Such measures will ensure that the agricultural sector improves its resilience to deal with various current and future climate risks. Furthermore, it is paramount that climate concerns are integrated into agricultural planning, policies and programmes considering that climate change is worsened due to the negative impact of conventional agricultural practices.⁷

Specially, developing countries like India need to minimize their climate footprint by drastically cutting down GHG emissions from its agricultural sector to avoid climate change’s irreversible consequences in the future. At present, India is the third largest contributor of GHG emissions globally, of which the agricultural sector accounts for nearly 16% of the GHG emissions.⁸ This demands that urgent measures and actions be taken in the Indian agricultural sector to cut down GHG emissions. Particularly, designing laws and policies bolstered by institutional frameworks to address climate change is the fundamental step towards accelerating efforts to combat agricultural GHG emissions. In light of this, this article focuses on the Indian legal and policy framework related to agriculture and analyzes whether it reflects climate change considerations. The purpose of such an investigation is to look at the potential areas for legal intervention to include climate change elements in the Indian agricultural sector.

The article is divided into four sections. Section I provides a brief overview of the interlinkages between climate change and agriculture, and the international legal framework on climate change and agriculture. Section II enumerates the need for legal intervention to mainstream climate change considerations in the agricultural sector. Section III provides an analysis of

⁶ Supra 1, at 106

⁷ Supra 1, at 101.

⁸ J. Timperley, *The Carbon Brief Profile of India*, CarbonBrief (14/03/2019), available at <https://www.carbonbrief.org/the-carbon-brief-profile-india>, last seen on 02/03/2021.

national agricultural laws and policies in India and highlights their inadequacies or absence of climate change elements. It also provides examples of good practices from other countries and highlights the best elements that could be incorporated in the existing and future agricultural laws and policies in India. Section IV concludes by reiterating some of the critical points in the article.

II. INTERLINKAGES AND INTERNATIONAL LEGAL FRAMEWORK ON CLIMATE CHANGE AND AGRICULTURE

It is widely acknowledged and well known that “*climate change interferes with the enjoyment of fundamental human rights such as the right to life, health, food and to an adequate standard of living*”;⁹ and it “*affects economic and political stability, contributes to growing inequality and decline in food and water security and increases threats to health and livelihoods.*”¹⁰ Specifically with respect to food security, climate change affects crop yields, the type of crops that can grow in certain areas, use of agricultural inputs such as water for irrigation, the amount of solar radiation that affects plant growth, as well as the prevalence of pests.¹¹ Climate change will also have an economic impact on agriculture, including changes in farm profitability, prices, supply, demand, trade and regional comparative risks and advantages.¹² The magnitude and geographical distribution of such climate induced changes may affect our ability to expand the food production area as required to feed the burgeoning population projected for 2050.¹³

These potential threats from climate change call for a significant, systematic and meaningful response across all sectors, particularly from

⁹ *Climate Change and Human Rights*, UNEP (2015), available at [https://wedocs.unep.org/bitstream/handle/20.500.11822/9530/-Climate Change and Human Rightshuman-rights-climate-change.pdf.pdf?sequence=2&isAllowed=1](https://wedocs.unep.org/bitstream/handle/20.500.11822/9530/-Climate%20Change%20and%20Human%20Rights%20human-rights-climate-change.pdf.pdf?sequence=2&isAllowed=1), last seen on 03/03/2021.

¹⁰ *General Recommendation No. 37 on gender related dimensions of disaster risk reduction in the context of climate change*, Committee on the Elimination of Discrimination against Women CEDAW/C/GC/37 (13/03/2018), available at <https://digitallibrary.un.org/record/1626306?ln=en>, last seen on 10/03/2021.

¹¹ C. Rosenzweig & D. Liverman, *Predicted effects of climate change on agriculture: A comparison of temperate and tropical regions*, 342, 343 in *Global climate change: Implications, challenges, and mitigation measures* (S.K. Majumdar, 1st ed., 1992).

¹² *Ibid.*

¹³ *Ibid.*

one of the “*most vulnerable sectors to climate change - the agricultural sector.*”¹⁴ Unfortunately, “*the agriculture sector (crops, livestock, forestry and fisheries, including aquaculture) as a whole, and specifically its relationship to climate change, has received relatively little attention within the international legal and policy framework on climate change, despite its criticality for food security, preserving ecosystems or its contributions to climate change*”.¹⁵

At the international level, United Nations Framework Convention on Climate Change (“UNFCCC”)¹⁶ is the framework convention that aims to prevent dangerous anthropogenic interference with the climate system and enhance policy framework and response to climate change threats.¹⁷ The Kyoto Protocol (“KP”)¹⁸, the Paris Agreement (“PA”),¹⁹ many decisions of Conference of Parties²⁰ and subsidiary bodies to these treaties, were all formulated under the UNFCCC. Although there are no binding legal obligations such as GHG emission reduction targets under the UNFCCC, “*it established a system of negotiation through which amendments and new instruments resulting from such negotiations could be adopted. Since then, the*

¹⁴ A. Tripathi & A.K. Mishra, *Knowledge and Passive Adaptation to Climate Change: An Example from Indian Farmers*, 16 *Climate Risk Management*, 195, 196 (2017), available at <https://reader.elsevier.com/reader/sd/pii/S2212096316300250?token=506BD5FBE2B19DCF3ED0C99347ECCB78C65B88C05B07D9EE9D9682DA1F6F81794171DFCD8D84787729803C223090FE52>, last seen on 10/03/2021.

¹⁵ *Supra* 1, at 2.

¹⁶ U.N. General Assembly, *United Nations Framework Convention on Climate Change*, 1771 U.N.T.S. 107 (09/05/1992), available at https://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf, last seen on 12/03/2021.

¹⁷ *Ibid*, at 10.

¹⁸ U.N. General Assembly, *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, 2303 U.N.T.S. 162, (10/12/1997), available at <https://unfccc.int/process-and-meetings/the-kyoto-protocol/history-of-the-kyoto-protocol/text-of-the-kyoto-protocol>, last seen on 13/03/2021.

¹⁹ Conference of Parties, *Paris Agreement to the United Nations Framework Convention on Climate Change*, UNFCCC, FCCC/CP/2015/10/Add.1, (10/12/2015), available at https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/paris_agreement_english.pdf, last seen on 13/03/2021.

²⁰ See *Conference of Parties (COP)*. UNFCCC, available at <https://unfccc.int/process/bodies/supreme-bodies/conference-of-the-parties-cop>, last seen on 01/03/2021; Conference of Parties is the supreme governing body of an international convention. All States that are Parties to the Convention are represented at the COP. COP reviews the implementation of the Convention and any other legal instruments that the COP adopts. It also takes decisions necessary to promote the effective implementation of the Convention, including institutional and administrative arrangements.

international climate regime has been developing in an innovative way, within the overall context of international environmental law”.²¹

The KP operationalizes the UNFCCC by requiring industrialized countries and economies in transition to commit to limiting and reducing their GHG emissions in conformity with agreed individual targets.²² However, these legally binding targets that aim at reducing emissions, along with penalties that arise for non-compliance, apply only for developed nations (also known as Annex I countries of the UNFCCC). The developing countries (Non-Annex I countries) were required to comply only voluntarily. “*Article 3.4 (of the KP) specifically recognizes the role of agricultural soils as a source of the GHG emissions, and removal of GHG emissions by sinks.*”²³

The PA is a legally binding international treaty on climate change that aims to limit the global temperature rise to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5°C.²⁴ The PA requires all countries irrespective of whether they are developed and developing to do their part and cut down GHG emissions. Unlike the KP, greater flexibility and national ownership is built into the PA. However, the PA does not define national commitments and every nation has the leeway to decide their own emissions targets according to their national priorities and technological capacity.²⁵ The PA in its preamble recognizes the impacts of climate change on the food production system.²⁶ It requires countries to use their best efforts towards mitigation and adaptation goals and to communicate these through their Nationally

²¹ D. Bodansky, J. Brunnée & L. Rajamani, *International Climate Change Law*, 374 (1st ed., 2017).

²² *What is Kyoto Protocol?*, UNFCCC, available at https://unfccc.int/kyoto_protocol, last seen on 10/03/2021..

²³ R. Mendelsohn & D. Tiwari, *Two Essays on Climate Change and Agriculture: a Developing Country Perspective*, 145 FAO Economic and Social Development Paper 90 (2004).

²⁴ *Supra* 1, at 11; Recent reports reveal that the world is not on track to meet the goals of the Paris Agreement (PA) and that emissions will continue to rise even beyond 2030 (UNEP, 2019).

²⁵ See M. Denchak, *Paris Climate Agreement: Everything You Need to Know*, NRDC (15/01/2021), available at <https://www.nrdc.org/stories/paris-climate-agreement-everything-you-need-know#:~:text=Unlike%20the%20Kyoto%20Protocol%2C%20which,and%20slash%20greenhouse%20gas%20emissions>, last seen on 10/03/2021.

²⁶ *Supra* 18, at 2; the Preamble language of the Paris Agreement that states “Recognizing the fundamental priority of safeguarding food security and ending hunger, and the particular vulnerabilities of food production systems to the adverse impacts of climate change”.

Determined Contributions (“NDCs”).²⁷ Most parties to the PA have included mitigation and adaptation actions in the agriculture sector within their NDCs that were submitted to the UNFCCC secretariat.²⁸

Further, a recent analysis by Climate Action Tracker 2020 revealed some shocking details about the first set of NDCs submitted by Parties to the UNFCCC Secretariat. The analysis estimated that the aggregate effect of the measures proposed would lead to scenarios varying from a temperature increase of 3 to 4°C. *“This implies that significant additional efforts will have to be made by Parties over the coming years to fulfil the PA’s collective goal to limit temperature increase to well below 2°C, including through measures addressing the agriculture sector.”*²⁹

Although the KP and the PA recognize the significance of the agricultural sector to some extent, it is the Koronivia Joint Work on Agriculture (“KJWA”)³⁰ that fully acknowledged the nexus between climate change and agriculture and their impacts on each other. KJWA contains specific targets for improving sustainable agriculture and addressing food security dimensions of climate change in the agricultural sector.³¹ KJWA gives hope for advanced climate action in agricultural sectors in the future. Both the PA and the KJWA are connected to the 2030 Agenda for Sustainable Development, particularly SDG 13 that recognizes the relationship between climate change and sustainable development. One of the SDG 13 targets is to *“integrate climate change measures into national policies, strategies and planning.”*³² These international instruments give a glimpse of how the agricultural sector’s nexus with climate change is recognised at the international framework in a limited yet significant way.

²⁷ *The Paris Agreement: Process and Meetings*, UNFCCC, available at <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>, last seen on 05/03/2021.

²⁸ *Supra* 1, at 1.

²⁹ See *Supra* 1, at 27 (This fact was confirmed by the IPCC in two of its Special Reports issued in 2018 and 2019, namely *Global Warming of 1.5° C* and *Climate Change and Land – Summary for Policymakers*).

³⁰ See FAO, *Climate Change, What-we-do*, <http://www.fao.org/climate-change/our-work/what-we-do/koronivia/en/>.

³¹ *Ibid*, at 13.

³² *Ibid*, at 14; See *Global Goals for sustainable development*, Global Goals, available at <https://www.globalgoals.org/13-climate-action>, last seen on 03/03/2021.

III. MAINSTREAMING CLIMATE CHANGE IN THE AGRICULTURAL SECTOR: NEED FOR LEGAL INTERVENTION

By 2050, the world population will have grown to 9.9 billion,³³ and the demand for agricultural products will increase anywhere between 59%-98% from the present.³⁴ “An extra 593 million hectares of agricultural land, an area nearly twice the size of India, will be required by 2050 over 2010 levels.”³⁵ This escalating growth of population, swelling food demand and the consequent consumption patterns pose a serious risk of escalating climate change. Global agricultural activities are already identified as the largest contributors of non-carbon dioxide GHG emissions.³⁶ Nearly 19.8 percent of the total GHG emissions globally are from clusters of agriculture and its related activities across the supply chain which includes land use for agriculture.³⁷

This indicates a global conundrum that scientists and experts around the world are and will be grappling with, which is to curtail agricultural GHG emissions and at the same time ensure food security for the growing population. Tackling this global issue calls for major changes in the agricultural sector to reduce its GHG emissions at national levels. However, “introducing such changes might be more challenging compared to other sectors.”³⁸ This is because first of all, the agricultural sector employs more than one-quarter of the global population and mobilizing such a large

³³ T. Kaneda, C. Greenbaum & K. Kline, *2020 World Population Data Sheet Shows Older Populations Growing, Total Fertility Rates Declining*, PRB (10/07/2020), available at <https://www.prb.org/2020-world-population-data-sheet/#:~:text=The%202020%20Data%20Sheet%20identifies,2020%20population%20of%207.8%20billion>, last seen on 12/03/2021.

³⁴ M. Elferink & F. Schierhorn, *Global Demand for Food is Rising. Can We Meet It?*, Harvard Business Review (2016), available at https://www.researchgate.net/publication/302466629_Global_Demand_for_Food_Is_Rising_Can_We_Meet_It, last seen on 02/03/2021.

³⁵ *Food loss and waste and the linkage to land and global ecosystems*, United Nations Convention to Combat Desertification: Knowledge Hub (09/05/2020), available at <https://knowledge.unccd.int/publications/food-loss-and-waste-and-linkage-land-and-global-ecosystems>, last seen on 04/03/2021.

³⁶ Supra 1, at 27.

³⁷ FAOSTAT: *Emission shares*, Food and Agriculture Organization of the United Nations, available at <http://www.fao.org/faostat/en/#data/EM>, last seen on 03/03/2021.

³⁸ J. Ahmed et al., *Agriculture and Climate Change: Reducing emissions through improved farming practices*, McKinsey & Company, 7 (2020), available at <https://www.mckinsey.com/~media/mckinsey/industries/agriculture/our%20insights/reducing%20agriculture%20emissions%20through%20improved%20farming%20practices/agriculture-and-climate-change.pdf>, last seen on 05/03/2021.

population to reduce GHG emissions will be slow and time-consuming. *Secondly*, unlike other sectors, introducing emissions-reduction-technology options that replace the existing ones in the agricultural sector will be arduous. For example, in the electricity sector, wind and solar can replace coal and gas and such options do not necessarily exist in agriculture.³⁹ Lastly, the agricultural sector is significantly less consolidated than other sectors and has a complex set of competing priorities such as conservation, food security, nutritional needs, biodiversity and protecting the livelihoods of farmers alongside climate goals.⁴⁰

Despite these challenges, “*law can be the lynchpin for creating and promoting binding climate related commitments*”,⁴¹ and related policy goals in the agricultural sector. Political willingness and readiness to enact germane legislation is an indication of a nation’s ability to fulfill its climate-related goals laid out in its NDCs and its overall contribution to combat global temperature rise.⁴²

At the national level, developing new laws or refining existing agricultural laws and policies to include climate considerations will play a crucial role in not only promoting sustainability, food security and safeguarding the lives of millions of people from harmful effects of climate change, but also ensuring that countries meet their international obligations and commitments. However, globally, “*despite other legal developments at the international level, adoption of domestic legislation that addresses climate change in the food and agriculture sectors is lagging behind*”.⁴³ A study indicated that the energy laws receive more attention compared to the incorporation of climate change elements in general environmental regulations as well as into forestry, transport and agriculture legislation.⁴⁴

³⁹ Ibid.

⁴⁰ Ibid.

⁴¹ Supra 1, at 3.

⁴² See C. Schwarte, *Legislating the Paris Agreement in Developing Countries*, Climate Law and Governance Working Paper Series, 5, No. 1/2017, Centre for International Sustainable Development Law (2017).

⁴³ Supra 1, at 17.

⁴⁴ M. Nachmany, S. Frankhauser & J. Setzer, *Global Trends in Climate Change Legislation and Litigation: 2017 Snapshot*, London School of Economics and Political Science & Grantham Research Institute on Climate Change and the Environment (09/05/2017), available at <https://www.lse.ac.uk/granthaminstitute/publication/global-trends-in-climate-change-legislation-and-litigation-2017-update/>, last seen on 14/02/2021.

This legislative gap therefore needs to be addressed urgently by countries, particularly India, “*which is still struggling to achieve food security and protect its vast agrarian population from production and market risks.*”⁴⁵ A massive overhaul of the legal and institutional framework governing the existing agricultural sector to incorporate climate considerations is required. Pragmatically, the process is daunting, complex and time-consuming. As a first step, discussions could be triggered among policymakers to consider legislating for a new climate-inclusive agriculture legal framework or policy. Simultaneously, efforts should be made to incorporate climate-inclusive considerations in existing laws, policies and programmes in the agricultural sector.

IV. EXISTING POLICY AND INSTITUTIONAL FRAMEWORK FOR AGRICULTURE AND CLIMATE CHANGE IN INDIA

1. A Brief Overview of the Agricultural GHG Emissions in India

Agriculture, with its allied sectors, is the largest source of livelihoods in India covering about 58% of the population.⁴⁶ Nearly, 70 percent of India’s rural households predominantly depend on agriculture for their livelihood.⁴⁷ As per the Economic Survey 2020-2021, nearly 20% of India’s Gross Domestic Product (“GDP”) is derived from agriculture.⁴⁸ Further, Indian agricultural exports are estimated to reach US\$ 60 billion by 2022 and essential agricultural commodities exports in 2020 increased by 43% compared to 2019.⁴⁹ Unfortunately, the agricultural GHG emissions from India are “*estimated to be 350 million tons a year which is 18% of the country’s*

⁴⁵ P.K. Joshi et al., *Role of development policies in combating climate change issues in Indian Agriculture: A first order assessment of irrigation and fertilizer policies*, International Association of Agricultural Economists, available at <https://ideas.repec.org/p/ags/iaae15/211817.html>, last seen on 02/03/2021 (Conference, August 9-14, 2015).

⁴⁶ *Agriculture in India: Information About Indian Agriculture and its Importance*, Indian Brand Equity Foundation (2021), available at <https://www.ibef.org/industry/agriculture-india.aspx>, last seen on 10/03/2021.

⁴⁷ *FAO in India: India at a Glance*, Food and Agriculture Organization of the United Nations, available at [http://www.fao.org/india/fao-in-india/india-at-a-glance/en/#:~:text=Agriculture%2C%20with%20its%20allied%20sectors,275%20million%20tonnes%20\(MT\)](http://www.fao.org/india/fao-in-india/india-at-a-glance/en/#:~:text=Agriculture%2C%20with%20its%20allied%20sectors,275%20million%20tonnes%20(MT),), last seen on 01/03/2021.

⁴⁸ *Report Summary: Economic Survey 2020-2021*, PRS Legislative Research (30/01/2021), available at https://www.prsindia.org/sites/default/files/parliament_or_policy_pdfs/Report%20Summary%20-%20Economic%20Survey%202020-21.pdf, last seen on 06/03/2021.

⁴⁹ *Supra* 50.

*total.*⁵⁰ A study shows that cropland-based agricultural activities “accounts for 24.17% of India's total methane and 95.84% of the total N₂O emission from the agricultural sector.”⁵¹

India made its climate pledge under the PA and submitted its NDCs in 2015 for implementation of the PA in the post-2020 period.⁵² The NDCs have eight goals, including three quantitative goals viz. reduction in the emissions intensity of GDP by 33-35 per cent by 2030 from 2005 level.⁵³ To achieve it, “GHGs emission intensity has to be reduced by 33-35% of 2005 level by 2030. This demands the creation of an additional carbon sink of 2.5-3 billion tonnes of CO₂ equivalent by 2030”.⁵⁴ Hence, particular emphasis and drive should be given to finding ways to reduce GHG emissions in all sectors including the agricultural sector.

There has been growing interest in scientifically ascertaining the interlinkages and impacts of climate change and agriculture on each other.⁵⁵ However, in the legal arena, there is no national-level legislation or institutional framework that comprehensively addresses how and what measures are to be taken by different departments and bodies responsible for climate change and agriculture to achieve India's climate related goals and commitments and to ensure mainstreaming of climate considerations in the agricultural sector.

⁵⁰ Supra 3, at 4.

⁵¹ S. Some, J. Roy & A. Ghose, *Non-CO₂ emission from cropland based agricultural activities in India: A decomposition analysis and policy link*, 25 *Journal of Cleaner Production*, 637, 638 (2019), available at <https://doi.org/10.1016/j.jclepro.2019.04.017>, last seen on 15/03/2021.

⁵² Apex Committee for Implementation of Paris Agreement (AIPA), Ministry of Environment, Forest and Climate Change Notification F. No. CC-13008/55/2019-CC (27/11/2020), available at <https://static.pib.gov.in/WriteReadData/userfiles/AIPA%20Gazette%20Notification.pdf>, last seen on 20/02/2021.

⁵³ Ibid.

⁵⁴ Draft Copy of National Soil Policy, at 41.

⁵⁵ See P. Thornton, et al., *Agriculture in a changing climate: keeping our cool in the face of the boathouse*, 47 *Outlook on Agriculture* 283, 284 (2018), available at <https://journals.sagepub.com/doi/full/10.1177/0030727018815332>, last seen on 13/04/2021; See J.V. Braun, *Climate Change Risks for Agriculture, Health, and Nutrition*, 135, 136 in *Health of People, Health of Planet and Our Responsibility* (W. Al-Delaimy, V. Ramanathan & M. Sánchez Sorondo M., 1st ed., 2020).

2. An Overview of India's Existing Legal, Policy and Institutional Framework on Agriculture that include Climate Change Concerns

With regard to India's institutional framework for agriculture and allied sectors, the Ministry of Agriculture and Farmers' Welfare⁵⁶ and its three departments namely Department of Agriculture Research and Education,⁵⁷ Department of Agriculture, Cooperation and Farmers Welfare,⁵⁸ and Department of Animal Husbandry, Dairying and Fisheries⁵⁹ are the primary organizations. Although these departments have launched agricultural policies and programmes, they have not given special consideration to incorporate adaptation⁶⁰ or mitigation⁶¹ measures to combat climate change in their decisions or directives. However, there are some policies and programmes introduced by the Government of India ("GOI") that have addressed some climate concerns directly or indirectly, which are discussed below.⁶²

⁵⁶ Ministry of Agriculture & Farmers Welfare, Government of India, available at <https://www.mygov.in/group/ministry-agriculture-and-farmers-welfare/#:~:text=The%20mission%20of%20DAC%26FW%20is,successful%20implementation%20of%20Ministry's%20schemes>, last seen on 10/03/2021; the Ministry of Agriculture and Farmers Welfare was established under the Government of India. It is the national level apex body that formulates and administers laws, rules, regulations, policies and guidelines related to the agricultural sector in India.

⁵⁷ See Department of Agriculture Research and Education, Ministry of Agriculture and Farmers Welfare (Government of India), available at <http://dare.nic.in/>, last seen on 10/03/2021.

⁵⁸ See Department of Agriculture, Cooperation and Farmers Welfare, Ministry of Agriculture and Farmers Welfare (Government of India), available at <http://agricoop.nic.in/>, last seen on 10/03/2021.

⁵⁹ See Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture and Farmers Welfare (Government of India), available at <http://dahd.nic.in/>, last seen on 10/03/2021.

⁶⁰ *Glossary of climate change acronyms and terms*, UNFCCC, available at <https://unfccc.int/process-and-meetings/the-convention/glossary-of-climate-change-acronyms-and-terms#:~:text=Mitigation,the%20sinks%20of%20greenhouse%20gases>, last seen on 15/03/2021; Adaptation to climate change refers to "adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities".

⁶¹ *Ibid*; mitigation in the context of climate change means "a human intervention to reduce the sources or enhance the sinks of greenhouse gases. Examples include using fossil fuels more efficiently for industrial processes or electricity generation, switching to solar energy or wind power, improving the insulation of buildings, and expanding forests and other 'sinks' to remove greater amounts of carbon dioxide from the atmosphere".

⁶² A. Kishore et al., *Unfolding government policies towards the development of climate smart agriculture in India*, 31 *Agricultural Economics Research Review* (Conference) 123, 124 (2018); in the current article, only the policies launched and sponsored by the GoI are discussed "Agriculture is under the state list of the Constitution of India and therefore, all agriculture-related policies and programmes are implemented by the state governments.

The first ever National Agricultural Policy was formulated by the GOI in 2000 that aimed at actualizing the potential of Indian agriculture and achieving a growth rate in excess of four per cent per annum in the agricultural sector,⁶³ based on efficient use of resources and conservation of soil, water and biodiversity.⁶⁴ Its key objectives include increasing the exports of agricultural products, encouraging private sector investment, minimizing price fluctuations in commodity prices, and institutionalization of farm credits among others.⁶⁵ In short, most of the objectives focused on enhancing productivity and profits from agriculture rather than including environmental aspects such as effects of climate change. This could be because during the said period, there was no explicit acknowledgement of the linkages between climate change and agriculture. Notably, there is some recognition of climate change effects at a later point in time such as in the National Farmers Policy, 2007.⁶⁶ The policy states that strategies will be developed for major agro-climatic zones in India and farmers would be trained to be “*climate managers*” in the art of managing extreme weather events. However, this policy suffers from lack of implementation as pointed out by the former chairman of the National Commission on Farmers.⁶⁷

In 2020, three agro-farm bills were passed by GOI as agricultural laws namely - the Farmers’ Produce Trade and Commerce (Promotion and

The GoI can, however, influence policies and programmes it wants the states to adopt by extending financial support for their implementation. Thus, we have two types of agricultural programmes in India. *Firstly*, some programmes are implemented across all the states with partial or full financial support from the central government. *Secondly*, states may have their own programmes for agriculture funded by their own budgetary resources”.

⁶³ R. Mani, *Ministry of Agriculture Announces National Agricultural Policy* (2000), India Water Portal (5/12/2009), available at <https://www.indiawaterportal.org/articles/ministry-agriculture-announces-national-agricultural-policy-2000>, last seen on 15/04/2021.

⁶⁴ *OECD Food and Agricultural Reviews: Agricultural Policies in India*, 146, OECD Library, available at <https://www.oecd-ilibrary.org/docserver/9789264302334-en.pdf?expires=1615486864&id=id&accname=guest&checksum=CCA2DD524BB16546417F119D3AB8B1D5>, last seen on 12/02/2021.

⁶⁵ *Ibid.*

⁶⁶ See National Policy for Farmers 2007, Department of Agriculture & Cooperation (Ministry of Agriculture, Government of India), available at <http://agricoop.nic.in/sites/default/files/npff2007%20%281%29.pdf>, last seen on 20/02/2021.

⁶⁷ See M.S. Swaminathan, *National Policy for Farmers Ten Years Later*, 6 Review of Agrarian Studies 1 (2016), available at http://ras.org.in/national_policy_for_farmers_ten_years_later, last seen on 15/03/2021.

Facilitation) Act, 2020;⁶⁸ the Farmers' (Empowerment and Protection) Price Assurance and Farm Services Act, 2020;⁶⁹ and the Essential Commodities (Amendment) Act, 2020.⁷⁰ However, what was expected to be a watershed moment was mired in controversies. Farmers' unions have been demanding repeal of these laws. A detailed look at these new agricultural laws reveals that they make no explicit reference to climate change considerations as part of the reforms introduced in the agricultural sector.

The next important policy to consider is the National Mission on Sustainable Agriculture (“NMSA”).⁷¹ It is one of the milestones among the eight missions under the GOP's National Action Plan on Climate Change⁷² (“NAPCC”). One of the main objectives of the NMSA is to make agriculture more sustainable and climate resilient.⁷³ It contains adaptation and mitigation measures to tackle climate change in agriculture.⁷⁴ In aggregate, these policies and programmes form the fundamental infrastructure and institutions responsible for responding to future climate risks.⁷⁵ However, the NMSA does not explicitly specify a need for legal intervention as one of the adaptation and mitigation needs for Indian agriculture,⁷⁶ except for a reference to have ‘legal safeguards’ to prevent risks from climate variability and changes.⁷⁷ But these safeguards do not seem to have been elaborated or formulated so far.

⁶⁸ See Farmer's Produce Act, 2020.

⁶⁹ See Farmer's Empowerment and Protection Act, 2020.

⁷⁰ See Essential Commodities Act, 2020.

⁷¹ See *National Mission on Sustainable Agriculture*, Department of Agriculture, Cooperation and Farmers Welfare (Ministry of Agriculture & Farmers Welfare, Government of India), available at <https://nmsa.dac.gov.in/>, last seen on 20/03/2021.

⁷² See *National Action Plan on Climate Change*, Prime Minister's Council on Climate Change (Government of India), available at <http://extwprlegs1.fao.org/docs/pdf/IND170509.pdf>, last seen on 14/02/2021.

⁷³ See *Objectives, National Mission on Sustainable Agriculture*, Department of Agriculture, Cooperation and Farmers Welfare (Ministry of Agriculture & Farmers Welfare, Government of India), available at <https://nmsa.dac.gov.in/frmObjectives.aspx>, last seen on 20/03/2021.

⁷⁴ *Supra* 45, at 2.

⁷⁵ *Ibid.*

⁷⁶ See *Mission 2.5 of the National Mission on Sustainable Agriculture*, Department of Agriculture, Cooperation and Farmers Welfare (Ministry of Agriculture & Farmers Welfare, Government of India), available at <https://nmsa.dac.gov.in/>, last seen on 10/03/2021.

⁷⁷ See *National Mission for Sustainable Agriculture: Strategies for Meeting the challenges of Climate Change*, 41, Department of Agriculture and Cooperation (Ministry of Agriculture) (2010), available at

The National Green Mission⁷⁸ under the NAPCC focuses on the significance of sustainably managed forests and other ecosystems as carbon sinks in relation to climate change. It makes no mention of the role of agricultural lands in relation to climate change, although it acknowledges agriculture as being a climate-sensitive sector.⁷⁹

Programs launched by the Indian Council of Agricultural Research, an autonomous body under the Department of Agriculture, Research and Education, such as the National Initiative on Climate Resilient Agriculture (“NICRA”),⁸⁰ have gaps in terms of legal intervention and mainstreaming of climate elements in agriculture. NICRA’s main objectives are to carry out strategic research, technology demonstrations and capacity building.⁸¹ It does not recognize the need for a legally supportive system or an institutional mechanism for climate-resilient agriculture.

To further illustrate the lack of attention to climate change in agriculture, the “*Consultative Group on International Agriculture Research Program on Climate Change, Agriculture and Food security that aims to promote adaptable and resilient agriculture and food systems in India and the International Crops Research Institute for the Semi-Arid Tropics initiative to develop a pool of climate-smart technologies*”⁸² do not include climate change considerations in promoting resilient agriculture. These innovative programmes are commendable and have been emulated in other countries. Yet in the Indian context they do not create a climate sensitive system and a supportive institutional mechanism.

<http://agricoop.nic.in/sites/default/files/National%20Mission%20For%20Sustainable%20Agriculture-DRAFT-Sept-2010.pdf>, last seen on 10/02/2021.

⁷⁸ *National Mission for a Green India (Under the National Action Plan on Climate Change)*, Ministry of Environment & Forests (Government of India), available at <http://www2.ecolex.org/server2neu.php/libcat/docs/LI/MON-093444.pdf>, last seen on 12/03/2021.

⁷⁹ Ibid.

⁸⁰ *National Innovations in Climate Resilient Agriculture*, NICRA, available at <http://www.nicra-icar.in/nicrarevised/>, last seen on 10/02/2021.

⁸¹ Ibid.

⁸² A.K. Padhee, *Actionable Policies to Make Indian Agriculture Climate-Resilient*, Agri-Buzz (ICRISAT), available at <https://www.icrisat.org/actionable-policies-to-make-indian-agriculture-climate-resilient/>, last seen on 10/02/2021.

3. Need for a National level Institution for Information on Climate Risks and Effects on Agricultural Sector

Another major legal and institutional gap in the Indian system is the absence of a national level legal or policy instrument establishing an authoritative body that serves as a repository for reliable data and information on climate risks and effects on the agricultural sector. Many scientific institutions and experts produce requisite data on climate risks in agriculture both in the medium and long term. But for national plans, schemes, programmes and measures to operate, all the reliable and relevant data on climate change and agriculture should be organized and made easily accessible to different levels of governments and stakeholders by an institution established for this purpose.

An example of such an innovative mechanism exists in Brazil, where the Brazilian Decree No. 9.841 - National Programme for the Agricultural Zoning of Climate Risk, 2019 facilitates research and monitoring of climate risks in agriculture and disseminates the results.⁸³ This Programme, with an aim to enhance the quality and accessibility of information on climate risks for agriculture in Brazil, has played a significant role in agricultural policy and risk management. It introduced methods for research and monitoring of climate risks in agriculture and for providing information on the results of such monitoring to society.⁸⁴ This Programme is an example of how a national agricultural programme could be instrumental for providing information on climate risks and its effects on the agricultural sector.

Moreover, countries are now shifting their agricultural practices towards “*climate-smart*” agriculture (“**CSA**”) which has gained popularity in recent years and is promoted by several organizations such as the Food and Agriculture Organization, World Bank, and Consultative Group on International Agricultural Research.⁸⁵ CSA is an integrative approach to address the interlinked challenges of food security and climate change that

⁸³ Decreto Nº 9.841 de 18 de junho de 2019 - Dispõe sobre o Programa Nacional de Zoneamento Agrícola de Risco Climático, 2019 (Brazil), available at <http://extwprlegs1.fao.org/docs/pdf/bra187586.pdf>, last seen on 10/03/2021.

⁸⁴ Supra 1, at 112

⁸⁵ Supra 13, at 197.

aims at three objectives: (i) sustainably increase agricultural productivity to support equitable increase in farm incomes, food security and development; (ii) adapting and building resilience of agricultural and food security systems to climate change; and (iii) reducing GHG emissions from agriculture.⁸⁶ It is quite unique compared to other sustainable agricultural practices because of its specific focus on climate risks and addressing the challenges. However, to incorporate CSA or any other equally effective sustainable agricultural practices or measures within the country's agricultural sector, there should be a supportive legal framework and a policy enabling environment for CSA along with institutional changes, strategic research, scientific methodologies, investment and advanced technologies and techniques. Once this coordination happens and transformations occur, CSA can be incorporated in India's legal and policy framework.

V. NEED FOR LEGISLATING ON A CLIMATE-INCLUSIVE AGRICULTURAL FRAMEWORK WITHIN SPECIFIC AREAS OF THE AGRICULTURAL SECTOR IN INDIA

It is important to look at the existing laws and policies in specific areas of the agriculture sector and analyze the extent of intervention to mainstream climate elements. *“Within the agricultural sector, the enteric fermentation in livestock, followed by methane emission from rice cultivation, nitrous oxide emission from agricultural soils, carbon dioxide emissions from crop residue burning, energy use in agriculture and fisheries are the major contributors of GHG emissions.”*⁸⁷ Here, we consider five major areas of the agriculture sector that have significant nexus to climate change in terms of GHG emissions.

1. Soil Health and Climate Change

Soil health is a very fundamental aspect of sustainable agriculture, and soil resources are considered one of the best allies in fighting climate change as

⁸⁶ *Climate Smart Agriculture Sourcebook: Introducing Climate-Smart Agriculture*, Food and Agriculture Organization of the United Nations, available at <http://www.fao.org/climate-smart-agriculture-sourcebook/concept/module-a1-introducing-csa/chapter-a1-2/en/#:~:text=As%20noted%20in%20the%20overview,greenhouse%20gas%20emissions%2C%20where%20possible>, last seen on 13/03/2021.

⁸⁷ Supra 62.

they aid in the exchange of GHG with the atmosphere and act as terrestrial carbon pools.⁸⁸ It is estimated that “in 25 years, soils can sequester more than 10 percent of the anthropogenic emissions.”⁸⁹ Despite its vital role, soils are one of the most vulnerable resources and face complex challenges due to increasing threats of climate change.⁹⁰ Quite surprisingly, the linkages between soil and climate change are often undermined. Most of the national soil legislations across the globe have focused primarily on soil pollution, soil erosion, land degradation and desertification,⁹¹ and recognition of the nexus between climate change and soils is a rare phenomenon in soil conservation laws, policies and programmes.

India, with nearly 140 million hectares of net sown area,⁹² has a pervasive soil degradation problem,⁹³ and soil deterioration due to stubble burning.⁹⁴ The annual soil loss rate in India is about 15.35 tonnes per hectare,⁹⁵ which can have direct impacts on climate change. However, the current operational schemes of soil conservation do not have adequate provision to address severe erosion problems under projected climate change scenarios.⁹⁶ Moreover, India does not have an exclusive legislation dealing

⁸⁸ Supra 1, at 169.

⁸⁹ *FAO Soils Portal: What is Soil Carbon Sequestration?*, Food and Agriculture Organization of the United Nations, available at <http://www.fao.org/soils-portal/soil-management/soil-carbon-sequestration/en/>, last seen on 14/03/2021.

⁹⁰ Supra 1, at 169.

⁹¹ *Ibid*, at 152.

⁹² S. Mukherjee, *ICAR to Prepare Plan Specifying the Maximum Sowing Area for Each Crop*, Business Standard (06/09/2019), available at https://www.business-standard.com/article/markets/icar-prepares-a-plan-specifying-the-maximum-sowing-area-for-each-crop-119090600025_1.html, last seen on 10/02/2021.

⁹³ R. Bhattacharyya, et al., *Soil degradation in India: Challenges and Potential Solutions*, 7 Sustainability 3528, 3529 (2015), available at <https://www.mdpi.com/2071-1050/7/4/3528>, last seen on 20/03/2021.

⁹⁴ S. Bhuvaneshwari, H. Hettiarachchi & J.N. Meegoda, *Crop Residue Burning in India: Policy Challenges and Potential Solutions*, 16(5) International Journal for Environmental Research and Public Health 832 (2019), available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6427124/#B22-ijerph-16-00832>, last seen on 03/04/2021; the burning of crop residues generates numerous environmental problems. The main adverse effects of crop residue burning include the emission of GHGs that contributes to global warming, increased levels of particulate matter and smog that cause health hazards, loss of biodiversity of agricultural lands, and the deterioration of soil fertility.

⁹⁵ Jitendra, *India's Agrarian Distress: Can We Revive Our Fatigued Soils*, DownToEarth (24/09/2020), available at <https://www.downtoearth.org.in/news/agriculture/india-s-agrarian-distress-can-we-revive-our-fatigued-soils-73528#:~:text=According%20to%20New%20Delhi%2Dbased,major%20impact%20on%20crop%20productivity>, last seen on 03/04/2021.

⁹⁶ *Ibid*.

with soil. Soil conservation, pollution or degradation issues are dealt with in silos in different legislations and in a vague manner. Even policies and programmes on soils seem to be limited. For instance, the GOI introduced a unique programme named Soil Health Card Scheme in 2015,⁹⁷ aiming to rejuvenate India's exhausted soil health by assessing the nutrient status of every farm holding in the country.⁹⁸ It advocates judicious use of chemical fertilizers, together with organic manure and biofertilizers, in order to improve the health of the soil, productivity, safety, and for mitigating climate change.⁹⁹ While some have lauded the scheme for improving productivity, critics claim that there are barriers to successful implementation of the scheme.¹⁰⁰

India could take inspiration from Bulgaria which has a comprehensive soil legislation that also considers climate-related issues. The Bulgarian Soils Act 2007 identifies as its objectives the protection of soils and their functions, as well as the sustainable use of soil and its long-term restoration.¹⁰¹ Similar to this, India could enact an exclusive soil legislation that establishes soil protection, use and restoration on the basis of principles such as an ecosystems approach, sustainable use, preventive control, application of good practices and the polluter pays principle.¹⁰² This legislation should also establish a competent authority that is tasked with conducting preliminary surveys and research, developing restoration projects, and monitoring, assessing and maintaining areas with restored soil functions.¹⁰³ Under this Act, national and regional programmes for soil

⁹⁷ *Soil Health Card*, Department of Agriculture, Cooperation and Farmers Welfare, available at <https://www.india.gov.in/spotlight/soil-health-card#tab=tab-1>, last seen on 03/04/2021.

⁹⁸ *Soil Health Card Scheme Completes 5 years on 19-2-2020*, Press Information Bureau, Government of India, Ministry of Agriculture & Farmer's Welfare, available at <https://pib.gov.in/Pressreleaseshare.aspx?PRID=1603379>, last seen on 03/04/2021.

⁹⁹ A. Bhargava, *Integrated Nutrient Management: Soil health Cards for Sustainable Agriculture*, Indian Express (20/02/2020), available at <https://indianexpress.com/article/opinion/columns/integrated-nutrient-management-soil-health-cards-for-sustainable-agriculture-6276545/>, last seen on 03/04/2021.

¹⁰⁰ See Dr. J.P. Mishra, et al., *Improving the Soil Health Card Scheme*, Policy Brief, available at https://static1.squarespace.com/static/5b7cc54e4eb7d25f7af2be/t/5c745123f9619af62c469c2b/1551126823002/Policy+Brief+FINAL+High+Quality+25th+Feb.pdf?source=post_page, last seen on 03/04/2021.

¹⁰¹ Bulgarian Soils Act, No. 89 of 2007, as amended in 2011 (Bulgaria), available at <http://extwprlegs1.fao.org/docs/pdf/bul116552.pdf>, last seen on 03/04/2021.

¹⁰² *Supra* 1, at 153.

¹⁰³ *Ibid.*

protection, sustainable use and restoration that is subject to environmental assessment could be introduced.¹⁰⁴

India could also look into the example of Costa Rica which passed a comprehensive soil legislation in 1998 that tackles threats to soil health as well as soil rehabilitation.¹⁰⁵ This Act introduces coordination mechanisms between government bodies to ensure that soil conservation and rehabilitation is undertaken at both national and regional levels. The Costa Rican Act, along with its implementing decree,¹⁰⁶ establishes measures to be used to prevent damage to soils from agricultural burning.¹⁰⁷

Another example is Bulgaria's Law on the Preservation of Agricultural Lands 1996,¹⁰⁸ the main objective of which is the preservation of lands from damage, as well as the restoration and improvement of the fertility of agricultural lands. This law provides an example of how aspects of climate concerns can be institutionalized. The law mandates the Ministry of Agriculture and Forests to maintain an information system for agricultural soil resources that shall contain a special register of agricultural lands.¹⁰⁹

Recently, the Ministry of Agriculture and Farmers' Welfare released the Draft National Soil and Land Use Policy for Serving Farmers and Safeguarding Agriculture.¹¹⁰ This policy gives some hope for consideration of climate change. Its objective is to *"ensure optimal utilization of the limited land resources in India for achieving sustainable development, addressing social, economic and environmental considerations and to provide a framework for states to formulate their respective land utilization policies incorporating state-specific concerns and priorities to achieve both short-term and long-term objectives."*¹¹¹ The policy has considered climate change elements in a limited yet useful manner. It makes it

¹⁰⁴ Ibid.

¹⁰⁵ Ley N°7 779 sobre uso, manejo y conservación de suelos, 1998 (Costa Rica), available at <http://extwprlegs1.fao.org/docs/pdf/cos15493.pdf>, last seen on 03/04/2021.

¹⁰⁶ Decree 29 375/MAG/MINAE/S/MOPT – Reglamento a la Ley sobre uso, manejo y conservación de suelos, 2000 (Costa Rica); Decree N° 35 368/MAG/S/MINAET – Reglamento para quemas agrícolas controladas, 2009 (Costa Rica), available at <http://www.fao.org/faolex/results/details/en/c/LEX-FAOC089538/>, last seen on 03/04/2021.

¹⁰⁷ Supra 1, at 154.

¹⁰⁸ Law on the Preservation of Agricultural Lands, 1996, as amended in 2003 (Bulgaria), available at <http://faolex.fao.org/docs/texts/bul61178.doc>, last seen on 03/04/2021.

¹⁰⁹ Supra 1, at 114.

¹¹⁰ Draft National Soil Policy.

¹¹¹ Ibid, at 6.

mandatory for periodic submission of soil health status reports to the Parliament and in the process acknowledges the change in soil health status due to climate change that need to be monitored on a time scale in benchmark sites.¹¹² Although this policy is a good starting point, India requires to go a long way in acknowledging the interlinkages between soil health and climate change in its legislative and policy measures related to soil.

2. Fertilizers and Climate Change

In agriculture, N₂O is produced from fertilized soils and animal wastes, and it is a potent GHG which has been calculated to have 300 times the global warming potential of CO₂ over a 100-year period.¹¹³ Fertilizer is one of the largest sources of N₂O contributing around 77% of the total direct 'N₂O emissions'¹¹⁴ from agricultural soils.¹¹⁵ Apart from application, even the manufacture of nitrogen fertilizers is very fossil-fuel intensive, contributing to CO₂ emissions. Globally, about six percent of total human-induced GHG emission originates from manufacture of nitrogen fertilizer and its application to farm soils.¹¹⁶

Around the world, although fertilizer use is one of the relevant sources of agricultural GHG emissions, management of fertilizer use and regulation is largely inefficient.¹¹⁷ Generally, fertilizer legislation in most nations

¹¹² Ibid, at 41.

¹¹³ N. Millar, J.E. Doll & G.P. Robertson, *Management of Nitrogen fertilizer to reduce Nitrous Oxide Emissions from Field Crops*, Climate Change and Agriculture Fact Sheet Series, MSU Extension Bulletin (2014), available at [https://www.canr.msu.edu/uploads/resources/pdfs/management_of_nitrogen_fertilizer_\(e3152\).pdf](https://www.canr.msu.edu/uploads/resources/pdfs/management_of_nitrogen_fertilizer_(e3152).pdf), last seen on 03/04/2021.

¹¹⁴ N₂O emission from agricultural soil is due to the natural biochemical process in the nitrogen cycle. Application of nitrogen-based fertilizers stimulates microbes in the soil to convert nitrogen to N₂O at a faster rate than normal. So, controlling nitrogen fertilizer use can help in the reduction of N₂O emission; S. Ghosh, *Nitrous Oxide Emission from Agriculture has Risen Sharply over 30 Years, Finds Study*, Scroll.in (25/05/2019), available at <https://scroll.in/article/924221/nitrous-oxide-emission-from-agriculture-has-risen-sharply-over-30-years-finds-study>, last seen on 03/04/2021.

¹¹⁵ Standing Committee on Agriculture, 16th Lok Sabha, *Twenty Ninth Report*, at 15, 2016, available at http://164.100.47.193/lssccommittee/Agriculture/16_Agriculture_29.pdf, last seen on 03/04/2021.

¹¹⁶ R. Tirado, et al., *Greenhouse gas emissions and mitigation potential from fertilizer manufacture and application in India*, 8(3) International Journal of Agricultural Sustainability, 176 (2010), available at https://www.researchgate.net/publication/233232177_Greenhouse_gas_emissions_and_mitigation_potential_from_fertilizer_manufacture_and_application_in_India, last seen on 04/03/2021.

¹¹⁷ Ibid, at 176.

focuses on those aspects directly relevant to fertilisers such as “*manufacture, importation and sale, as well as environmental pollution aspects of fertilizer use*”.¹¹⁸ They do not pay attention to indirect yet crucial issues related to climate change such as nutrient management which could be a key policy goal for climate change mitigation.¹¹⁹

In India, a study revealed that in the agricultural sector, although methane emissions have been constantly dwindling, there has been a spike in N₂O emissions in the atmosphere in the last three decades, creating an imbalance¹²⁰ in the ‘actual recommended ratio of nitrogen, phosphate and potassium’¹²¹ used by farmers. Another study stated that from 1980 to 2015, the said increase in N₂O emissions were around 358 percent - nearly 5100 tonnes per year, which is mainly due to the usage of nitrogen-based fertilizers.¹²² In fact, nitrogen-based fertilizers were responsible for nearly 77% of the total agricultural emissions over the stated period. The latter study also indicated that the fertilizer pricing policies (which made nitrogen fertilizer cheaper than others)¹²³ and the resulting disproportionately higher use of nitrogen fertilizer, going beyond officially prescribed ratios, are the two main culprits for this increase.¹²⁴ To top it all, India remains the second-largest producer and consumer of nitrogen fertilizer in the world after China, with close to a 15 per cent share of the global total.¹²⁵

¹¹⁸ Supra 1, at 167.

¹¹⁹ Ibid.

¹²⁰ S. Some, J. Roy & A. Ghose, *Non-CO₂ Emission from Cropland Based Agricultural Activities in India: A Decomposition Analysis and Policy Link*, 225 *Journal of Cleaner Production*, 638 (2019), available at <https://www.sciencedirect.com/science/article/abs/pii/S0959652619310856>, last seen on 04/03/2021.

¹²¹ The recommended nitrogen, phosphate, and potash should be used in Indian soil conditions is 4:2:1, though this ratio varies across regions within India. Because of the pricing policies on fertilizer inputs, however, in some years the ratio has deteriorated to approximately 10:3:1; See S. Gupta, *Fertilizer Policy in India: An Overview*, Chapter 4: The Political Economy of Fertilizer Supply to Agriculture, at 36-37, <http://ebrary.ifpri.org/utis/getfile/collection/p15738coll2/id/129618/filename/129829.pdf>.

¹²² Supra 55, at 638.

¹²³ Supra 127, at 38; the GOI’s expenditure on subsidies and concessions to fertilizer producers has increased steadily over the past three decades (Table 4.7). The subsidy on fertilizers increased from Rs 3.81 billion in 1980/81 to Rs 110.15 billion in 2002/03 (MoF 2004a, 3).

¹²⁴ See supra 98; Also see supra 55, at 645.

¹²⁵ See supra 122, at 176.

Fertilizer as an industry is under the GOI's control under the Industries Development and Regulation Act, 1951.¹²⁶ Further, under the Essential Commodities Act, 1955,¹²⁷ fertilizer was declared as a commodity. Then, the GOI released the Fertilizer (Control) Order, 1985,¹²⁸ which has provisions related to control mechanisms, manufacture, import, sale and pricing of fertilizers, rather than provisions related to emissions and pollution from fertilizers. Even the subsequent amendment of this order, which was introduced in 2013¹²⁹ focuses on equitable distribution of fertilizers and does not make any mention about emissions from fertilizers. Mostly, *“fertilizers in India have been promoted through government subsidies and they are blamed for increasing fiscal burden and distorting soil nutrient ratio.”*¹³⁰

Such subsidies began in 1977 with the Retention Price Scheme which was replaced by a group-based concession scheme called the New Pricing Scheme from 2003.¹³¹ These subsidy schemes stimulated indigenous production as well as an increase in consumption of fertilizers. Then, the Nutrient Based Subsidy Policy, 2010 was implemented to *“control mounting subsidies and to ensure soil nutrient balance could not achieve its targets so far.”*¹³² Although these subsidies increased crop yields, they failed to maintain nutrient balance in the soil and led to degradation.

So, in order to set the right pricing and subsidies, encourage investments and ensure balanced use of fertilizers, advanced techniques and technologies to reduce nitrogen fertilizer dependency, India requires a comprehensive climate-inclusive fertilizer legislation. The German

¹²⁶ See the Industries (Development and Regulation) Act, 1951.

¹²⁷ See the Essential Commodities Act, 1955.

¹²⁸ See Fertilizer Control Order, 1985; there are also reports that only bring the positive aspects of fertilizers on agriculture. For instance, the Report of the Working Group on fertilizer industry in its 12th plan highlights the positive effects of fertilizers in food production and does not anywhere address the pollution caused by nitrogen or its negative effects on climate change; See *Report of Working Group on Fertilizer Industry*, Ministry of Chemicals & Fertilizers (2017), https://www.nqr.gov.in/sites/default/files/09_Report_of_the_working_group_XII_Plan_0.pdf, last seen on 03/04/2021.

¹²⁹ Fertilizer Control (Amendment) Order, 2013.

¹³⁰ K.V. Praveen et al., *Fertilizer Subsidies in India: An Insight to Distribution and Equity Issues*, 13(3) *Journal of Crop and Weed*, 24 (2017), available at https://www.researchgate.net/publication/322939582_Fertilizer_subsidies_in_India_an_insight_to_distribution_and_equity_issues, last seen on 04/03/2021.

¹³¹ See *Fertilizer Industry Coordination Committee (Attached Office)*, Government of India, Department of Fertilizers, available at <https://fert.nic.in/fertilizer-industry-coordination-committee-attached-office>, last seen on 04/03/2021.

¹³² *Supra* 136, at 24.

Fertilizer Ordinance of 2006,¹³³ later revised in 2017, is a solid example of how a core legislation on fertilizer engages in aspects of reduction of nitrate and phosphate emissions from agriculture. “*This piece of legislation consists of different sets of measures, including measures to limit the quantity of applied nutrients and detailed technical or management specifications.*”¹³⁴ The 2017 revision included considerable changes, such as compulsory fertilizer planning, the inclusion of biogas digestate from plant origin, stricter blocking periods for fertilizer application, a stepwise introduction of reduced ammonia emission application techniques and the possibility to introduce additional measures in pollution hot spots.¹³⁵ This type of legislation is an example of regulatory control of agriculture issues which also serve climate goals. Learning from the German example, India needs to acknowledge the nexus between fertilizer and climate change and enact a robust climate-inclusive fertilizer legislation and also consider incorporating climate elements in all the relevant fertilizer policies and government orders.

3. Seeds and climate change

The purity and quality of seeds ensure success of any agricultural produce. Farmers require timely and adequate supply of diverse varieties of quality and climate resilient seeds to survive the harsh effects of climate change. India has one of the largest seed market potential in the world with around \$3 billion out of the global market of \$55-59 billion.¹³⁶

As is the case with other sectors, national legislations in different countries on seeds focus on regulating quality and ensuring accessibility of good quality seeds, certification and registration, procedures to enhance seed quality, mechanisms to support producers and vendors, and provisions for registration among others.¹³⁷ They rarely refer to or integrate climate related

¹³³ Fertilizers Ordinance (Düngeverordnung – DüV), 2006 (Germany).

¹³⁴ Supra 1, at 168.

¹³⁵ See T. Kuhn, *The Revision of the German Fertilizer Ordinance in 2017*, Discussion Paper, Institute for Food and Resource Economics, University of Bonn, Germany (2017), available at <https://www.researchgate.net/publication/319211355> The revision of the German Fertilizer Ordinance in 2017, last seen on 04/03/2021.

¹³⁶ M. Dadlani, *Seed Law and legislation: An update from India, Japan & Korea*, APSA-ISTA Seed Quality Management Seminar (2020), available at https://www.apsaseed.org/wp-content/uploads/2020/02/13_MD_APSA_1802_Speaker.pdf, last seen on 03/04/2021.

¹³⁷ Supra 1, at 176.

goals. In India too, laws pertaining to seeds are limited, outdated and do not explicitly include climate concerns. The Seeds Act, 1966,¹³⁸ and the Seeds Rules, 1968¹³⁹ and its later amendment 1973, provides for regulation of quality of seeds for sales. The Seed Control Order, 1983 provides for compulsory licensing,¹⁴⁰ and the New Policy for Seed Development, 1988 aimed to liberalize export and import norms for seeds.¹⁴¹ Then the Environment (Protection) Act, 1986 contained provisions for regulation of GM varieties.¹⁴²

After more than a decade, the Protection of Plant Varieties and Farmers' Rights Act, 2001¹⁴³ and Rules, 2003¹⁴⁴ were enacted to fulfill India's international commitments. They provided for a *sui generis* system to balance plant breeder's along with farmer's rights and researcher's rights. This gave a boost to the seed industry along with Biological Diversity Act, 2002 that facilitated exchange and use of seeds as genetic resources.¹⁴⁵ Apart from these laws, the National Seed Policy, 2002 was formulated to raise India's share in global seed trade through introduction of scientific aspects such as biotechnology to farmers.¹⁴⁶ The latest development is the introduction of the Draft Seeds Bill, 2019 to amend the Seeds Act, 1960.¹⁴⁷

None of these laws and policies are climate-inclusive or provide scope for integration of climate elements in the seed sector. One possible solution is to include suitable provisions in the Draft Seeds Bill, 2019. There is enormous scope to make this bill climate friendly by looking into global examples such as the seed legislation of Mexico,¹⁴⁸ that provides for

¹³⁸ The Seeds Act, 1966.

¹³⁹ The Seeds Rules, 1968.

¹⁴⁰ The Seeds Control Order, 1983.

¹⁴¹ The New Policy for Seed Development, 1988, available at https://seednetgov.in/PDFFILES/NEW_POLICY_NPSD.pdf, last seen on 03/04/2021.

¹⁴² The Environment (Protection) Act, 1986.

¹⁴³ The Protection of Plant Varieties and Farmers' Rights Act, 2001.

¹⁴⁴ The Protection of Plant Varieties and Farmers' Rules, 2003.

¹⁴⁵ The Biological Diversity Act, 2002.

¹⁴⁶ The National Seeds Policy, 2002, available at <https://seednetgov.in/PDFFILES/National%20Seed%20Policy,%202002.pdf>, last seen on 03/04/2021.

¹⁴⁷ Draft Seeds Bill, 2019 (pending), available at [https://www.prsindia.org/sites/default/files/bill_files/Draft Seeds Bill, 2019.pdf](https://www.prsindia.org/sites/default/files/bill_files/Draft%20Seeds%20Bill,%202019.pdf), last seen on 03/04/2021.

¹⁴⁸ Ley para el desarrollo agrícola sustentable del Estado de Nayarit, 2012 (Mexico).

*“sustainability and the rational use of natural resources as the guiding principle for agricultural production. Specific initiatives under the Law include, for example, the promotion of improved and certified seeds and other inputs that augment productivity while protecting the environment.”*¹⁴⁹

Another important legislation to learn from is Ecuador’s Organic Law of Agrobiodiversity, Seeds and Promotion of Sustainable Agriculture, 2017.¹⁵⁰ This Act contains provisions that mandate the agricultural authority to coordinate with relevant authorities and institutions to train and assist farmers to learn to recover their seed production system from calamities that could be caused due to climate change. It also establishes a national germplasm bank holding varieties of landraces and germplasms.¹⁵¹ Similarly, India could emulate the Kenyan Crops Act, 2013 that has supportive mechanisms for establishing seed farms to develop climate-resilient crop varieties and seed markets.¹⁵²

Apart from this, the Seeds Bill, 2019 can integrate climate related goals by promoting crop diversity directly, or through farmers’ access to crops and varieties that have already been tested and approved in other countries.¹⁵³ The Bill can also include provisions to facilitate *“access to diversity for relatively neglected crops, for instance by recognizing different seed quality standards in order to foster a seed sector that is more diverse in terms of the types of enterprises involved, crops multiplied, and seed prices.”*¹⁵⁴ Further, the Bill should not only include provisions for providing incentives to breed climate-resilient seeds but also introduce mechanisms to make investments in climate-resilient seed production and distribution that includes seed bulking facilities, expanded extension services, and input subsidies.¹⁵⁵ Incorporation of these

¹⁴⁹ Supra 1, at 177.

¹⁵⁰ Organic Law of Agrobiodiversity, Seeds and Promotion of Sustainable Agriculture, No. 10 of 2017 (Ecuador).

¹⁵¹ Ibid.

¹⁵² Crops Act, 2013 (Kenya).

¹⁵³ Supra 1, at 176.

¹⁵⁴ Ibid.

¹⁵⁵ O.J. Cacho, et al., *The Value of Climate-Resilient Seeds for Smallholder Adaptation in Sub-Saharan Africa*, 162 *Climatic Change*, 1215 (2020), available at <https://link.springer.com/article/10.1007/s10584-020-02817-z>, last seen on 04/03/2021.

suggestions could ensure that the draft seed bill is climate-inclusive and opens up a possibility of integration of climate elements in the seed sector.

4. Agrobiotechnology and Climate Change

Agricultural biotechnologies are increasingly being applied in crops and agro-industries as a means to adapt to climate change and to maintain the natural resource base.¹⁵⁶ With respect to climate change, some experts are of the opinion that agrobiotechnology could be a way to mitigate climate risks by reducing agricultural GHG emissions through boosting carbon sequestration on cropland.¹⁵⁷ Further, agricultural biotechnology when appropriately integrated with other technologies for the production of food, agricultural products and services, can be of significant assistance.¹⁵⁸ For instance, it can facilitate new varieties and traits that are drought and heat tolerant and resilient to extreme weather events.¹⁵⁹

India ranks in the top five countries in the world in terms of planting agri-biotech crops.¹⁶⁰ However, the adoption of agrobiotechnology in India has remained contentious for several years. Some believe that it is owing to information asymmetry in this field,¹⁶¹ and others strongly opine¹⁶² that there are uncertain risks of genetically engineered crops escaping the farm and impacting natural plant species. The Department of Biotechnology (“DBT”) under the Ministry of Science and Technology is the primary agency for coordinating agri-biotech operations in India. In view of the potential risks of biotechnology to the environment, the areas of research,

¹⁵⁶ Supra 1, at 178.

¹⁵⁷ Ibid.

¹⁵⁸ Supra 1, at 178.

¹⁵⁹ Ibid.

¹⁶⁰ H. Dang, B. Gilmour & N. Kishor, *India's Agri-Biotech Policies, Regulations and Decision-Making*, 18(1) AgBioForum, 87 (2015), available at https://www.researchgate.net/publication/280533784_India's_Agri-Biotech_Policies_Regulations_and_Decision-making, last seen on 04/03/2021.

¹⁶¹ See S. Menon & S.K. Jha, *National Biosafety System for Regulating Agricultural Biotechnology in India*, 14(2) International journal of Biotechnology, 151 (2016), available at https://www.researchgate.net/publication/305621146_National_biosafety_system_for_regulating_agricultural_biotechnology_in_India, last seen on 04/03/2021.

¹⁶² See *Impacts of Genetically Engineered Crops on Farm Sustainability in the United States*, The National Academies of Sciences Engineering Medicine, Chapter 4, P.59, 2010, <https://www.nap.edu/read/12804/chapter/4>, last seen on 14/04/2021; See A. Bauer-Panskus et al., *Risk assessment of genetically engineered plants that can persist and propagate in the environment*, Environ Sci Eur 32, 32 (2020), available at <https://doi.org/10.1186/s12302-020-00301-0>, last seen on 14/04/2021.

product development and commercial release is assigned to the Ministry of Environment, Forest and Climate Change. Further, the Ministry of Health and Family Welfare also plays a key role.¹⁶³

Since the 1980s, India has enacted several regulations and policies related to agrobiotechnology. None of them have seriously acknowledged the nexus between climate change and agrobiotechnology. The legal and policy framework for agrobiotechnology is weak, and climate change concerns rarely feature in the existing policies and decisions of the relevant institutions. Examples of biotechnology regulations in India include the Rules for the Manufacture, Use, Import, Export and Storage of Hazardous Microorganisms/Genetically Engineered Organisms or Cells 1989,¹⁶⁴ the Recombinant DNA Safety Guidelines, 1990,¹⁶⁵ and Research in Transgenic Plants & Guidelines for Toxicity and Allergenicity Evaluation of Transgenic Seeds, Plants and Plant Parts, 1998.¹⁶⁶ None of these rules include the climate nexus. In 2007, the DBT also released the National Biotechnology Development Strategy, 2007, which includes climate change as one of the areas for supporting research that is aimed at protection of yield loss due to climate change.¹⁶⁷ However, the strategy makes no mention of how agrobiotechnology could be a climate change mitigation measure.

At the state level in India, certain states have welcomed biotech policies.¹⁶⁸ This complex and controversial scenario presents a potential difficulty for

¹⁶³ Supra 174.

¹⁶⁴ Rules for the Manufacture, Use, Import, Export and Storage of Hazardous Microorganisms/Genetically Engineered Organisms or Cells, 1989.

¹⁶⁵ Recombinant DNA Safety Guidelines, 1990, available at <https://biosafety.icar.gov.in/recombinant-dna-safety-guidelines-1990-2/>, last seen on 03/04/2021.

¹⁶⁶ Revised Guidelines for Research in Transgenic Plants & Guidelines for Toxicity and Allergenicity Evaluation of Transgenic Seeds, Plants and Plant Parts, 1998, available at https://biosafety.icar.gov.in/wp-content/uploads/2015/11/Rev_Guidelines_Research1998.pdf, last seen on 03/04/2021.

¹⁶⁷ National Biotechnology Development Strategy, 2015-2020, available at http://dbtindia.gov.in/sites/default/files/DBT_Book-29-december_2015.pdf, last seen on 03/04/2021.

¹⁶⁸ See Biotechnology Policy of Tamil Nadu (2014), available at <http://extwprlegs1.fao.org/docs/pdf/ind194101.pdf>, last seen on 03/04/2021; Karnataka Biotechnology Policy (2017), available at [http://www.bisep.karnataka.gov.in/images/downloads/karnataka-biotech-policy-III\(2017-2022\).pdf](http://www.bisep.karnataka.gov.in/images/downloads/karnataka-biotech-policy-III(2017-2022).pdf), last seen on 3/4/2021; Kerala Biotechnology Policy (2003), available at <https://www.bio360.in/wp-content/uploads/2018/08/policy2003%20kerala%20biotech%20policy.pdf>, last seen on 03/04/2021.

a legal intervention to mainstream climate concerns in this key sector. However, it is important that once agrobiotechnology laws and policies are enacted in India, climate concerns are acknowledged and integrated with special efforts made by the DBT and the concerned ministries.

One of the best examples of such a legal intervention for mainstreaming climate concerns in biotechnology law is the Kenyan Biosafety Act, 2009, which requires the National Biosafety Authority formed under the Act to mainstream climate change in implementing biosafety and design policies to respond to future climate change considerations.¹⁶⁹ Similar to this, India should include provisions that mandate mainstreaming of climate change in its existing biotechnology policies, regulations and guidelines. This will ensure that the existing biotechnology policy framework is adequately informed and equipped to respond to future climate effects which will in turn benefit the agricultural sector.

5. Livestock and Climate Change

The livestock sector contributes significantly to GHG emissions through methane emissions from livestock and land use changes that occur due to the conversion of forestland to pasture land. This is a serious concern which has been included as part of mitigation measures in NDCs of different countries.¹⁷⁰ So it is paramount to steer the attention of this sector towards climate friendly practices by introducing legal interventions.

India has one of the highest livestock populations of over 537 million in 2019,¹⁷¹ and the total GHGs emission is estimated at 247.2 metric tons in terms of CO₂ equivalent emissions.¹⁷² The livestock sector alone contributes 4.11% GDP and 25.6% of total agriculture GDP in India.¹⁷³

¹⁶⁹ Supra 1, at 179-180.

¹⁷⁰ Supra 1, at 180.

¹⁷¹ G. Bakshi, *Livestock Population in India up by 4.6% in Seven Years*, Jagran Josh (18/10/2019), available at <https://www.jagranjosh.com/current-affairs/livestock-population-in-india-up-by-46-in-seven-years-1571295223-1#:~:text=The%20livestock%20population%20in%20India,nearly%20536%20million%20in%202019>, last seen on 04/03/2021.

¹⁷² A. Chhabra et al., *Greenhouse Gas Emissions from Indian Livestock*, 117 *Climatic Change*, 329 (2013), available at <https://doi.org/10.1007/s10584-012-0556-8>, last seen on 04/03/2021.

¹⁷³ S. Dash, *Contribution of Livestock Sector to Indian Economy*, 6(1) *Indian Journal of Research*, 159 (2017), available at

The Department of Animal Husbandry and Dairying is one of the departments of the newly created Ministry of Fisheries, Animal Husbandry & Dairying responsible for matters relating to livestock production, preservation, protection from diseases and improvement of stocks among others. The Department advises State Governments/Union Territories in the formulation of policies and programs in the field of Animal Husbandry and Dairy Development.¹⁷⁴

The Department lays out several schemes, programmes and policies which include the National Livestock Mission, the National Programme for Dairy Development, and the National Animal Disease Control Programme among others. None of these schemes include climate concerns. The National Livestock Policy, 2013 provides the policy framework for improving productivity of the livestock sector in a sustainable manner and acknowledges the nexus between livestock and agriculture.¹⁷⁵ It takes into account the provisions of the National Farmers Policy, 2007 and the recommendations of the stakeholders, including the States. The policy includes provisions that mandate efforts to modify the management and feeding systems to reduce GHG emissions by livestock.¹⁷⁶

Despite this development, India needs a much larger legal intervention as its livestock population and their GHG emissions keep on increasing. There are examples from other countries that have crucial lessons for India. One example is Lao's legislation on livestock that aims to guarantee food security while ensuring sustainable environmental protection.¹⁷⁷ It mandates that activities in livestock should be carried out without harming the environment and lays down general principles to guidance implementation.¹⁷⁸ There are also other good examples of legislation that include climate concerns as one of the goals in livestock production such

https://www.worldwidejournals.com/paripex/recent_issues_pdf/2017/January/January_2017_1483613920_159.pdf, last seen on 04/03/2021.

¹⁷⁴ Department of Animal Husbandry and Dairying, available at <https://dahd.nic.in/>, last seen on 04/03/2021.

¹⁷⁵ National Livestock Policy, 2013, available at <http://dahd.nic.in/sites/default/files/NLP%202013%20Final11.pdf>, last seen on 04/03/2021.

¹⁷⁶ Ibid, at 26.

¹⁷⁷ Law No. 03/NA on Livestock Production and Veterinary Matters, 2008, as amended in 2016 (Lao).

¹⁷⁸ Supra 1, at 182.

as the law in Mexico that includes in its objectives, a duty to promote sustainable livestock practices to reduce climate change.¹⁷⁹ Two other examples are the Korean legislation that establishes a special agency to promote sustainable utilization of livestock excreta,¹⁸⁰ and New Zealand's legislation that includes specific target reduction of emissions from livestock production.¹⁸¹ Therefore, while India has incorporated schemes to manage its livestock, it is imperative that climate change be taken into account more lucidly, in light of India's international commitments.

VI. CONCLUSION

With climate change becoming an overwhelming global challenge, there is a dire and urgent need for countries to mainstream climate concerns into every possible sector affected by its impacts. This article expounds on how climate change consideration should be the cornerstone of agricultural laws and policies as arguably, agriculture is not only one of the most vulnerable sectors affected by climate change, but also has the potential to worsen climate impacts due to greater increase in agricultural GHG emissions in the future.

As evidenced in this article, several foreign jurisdictions have pioneered to incorporate climate concerns within its agricultural laws and policies. Unfortunately, India, despite being a largely agrarian economy and a leading contributor of agricultural GHG emissions, is yet to chart a low-carbon climate future and design a climate-inclusive agricultural legal and policy framework. Although some existing Indian agricultural policies do allude to climate concerns, there still remains significant gaps in the legislative and implementation front such as lack of agricultural policy or legislations to establish legally supportive institutional mechanisms to bolster climate-resilient agriculture; absence of agricultural policies that

¹⁷⁹ Ley de desarrollo pecuario del Estado de Tabasco, 2011 (Mexico). See more on the provisions included in this legislation at Supra 1, at 183.

¹⁸⁰ Republic of Korea's Act on the Management and Use of Livestock Excreta, No. 8 010 of 2006, as amended by Act No. 13 526 of 2015 (South Korea). See more on the provisions included in this legislation at supra 1.

¹⁸¹ Climate Change Response (Zero Carbon) Amendment Act 2019, No. 61 of 2019 (New Zealand); see more on the provisions included in this legislation at Supra 1, at 184.

target climate mitigation/adaptation measures; lack of climate related concerns in agricultural decisions/directives; paucity of quality and reliable information on climate related risks in agriculture among others. Without addressing these fundamental gaps, having a legal or policy framework that supports a climate-resilient agricultural sector in India will remain a wishful thinking.

The article however does not merely limit itself to identifying and criticizing the existing climate related gaps in the agricultural policies in India but propounds recommendations by highlighting good practices in agricultural laws, policies and measures in other foreign jurisdictions that have provided special attention to include climate angle in their frameworks. By doing this, the purpose was to bring to the attention of relevant stakeholders, including law-/policymakers, scientists, farming communities, agricultural experts and economists, that although there is not yet an international blueprint on how climate friendly agricultural legislation can be put in place, there are systems and approaches prevalent in many countries that give hope in the direction of adopting good practices that can be tailor-made to suit domestic needs and priorities. Thus, the article provides a fundamental guiding step in designing climate-inclusive agriculture legislation in India.

It is recommended that by learning from different country examples cited in this article, India could choose from one of the recommended approaches discussed in the article. One approach to go ahead with is to design an exclusive climate change legislation that comprehensively includes regulatory actions, long-term and short-term goals, institutional framework among other significant actions. The other approach is to make sector-specific climate amendments in agricultural legislation that integrate climate considerations across all sectors including agriculture. While areas such as seed legislations, biotechnology, etc., are crucial for adaptation, sectors such as fertilizers and livestock can be the basis for immediate mitigation-oriented measures. Each of these approaches provide avenues for introducing pro-climate amendments which can simultaneously contribute to reducing agricultural costs, improving productivity, and increasing incomes apart from combating climate change. The mandate of

making the agricultural sector climate-resilient must be sufficiently apparent in such laws whether it is a national legislation or sector-specific legislation, and must reflect the paradigm shift that is necessary for sustaining India's agriculture.

Meanwhile, India should also give every public entity in the state government and central government the mandate to integrate climate change action plans and considerations into their sectoral strategies and action plans, and in other implementation projections for the assigned legislative and policy functions. This will require that every legislation or policy made in the agricultural sector is informed by and responds to eventual climate change considerations and goals as included in the National Action Plan on Climate Change. Also, climate proofing agricultural legislation or policy would require a lot of *“stimulus, resources and expertise from external agencies and organizations such as the United Nations and international development institutions.”*¹⁸²

Although the tasks are ambitious and herculean in nature, it is not impossible to bring in robust reforms if the learnings from good practices of other foreign jurisdictions are done in a phased manner with an emphasis on making it an inclusive and consultative process that involves all relevant stakeholders. Further, the articulation of all such reforms must be done in a manner that instills confidence and trust in all such relevant stakeholders. Further, the reality still remains that no reforms in laws and policies is possible without political willingness to prioritize climate change elements on par with other significant goals of agriculture such as food security, conservation and enhancing economic aspects of agriculture. Even more herculean is the task of enacting robust agricultural legislation or amending existing legislations in agriculture to specifically promote such goals, build institutional mechanisms and fulfill India's climate goals and global commitments.

¹⁸² Climate Change and Agricultural Policies, *How to mainstream climate adaptation and mitigation into agricultural policies*, FAO Policy learning Programme, 30, available at http://www.fao.org/fileadmin/templates/ex_act/pdf/ppt/Climate_Change_and_Agricultural_Policies_ppt.pdf, last seen on 10/05/2021.

Apart from designing or amending legislation and policies, India must also bear in mind that enabling conditions for promoting climate friendly agricultural practices such as providing current and future financing mechanisms, incentives, institutional support, access to advanced agricultural technology interventions and techniques, innovative adaptation and mitigation options, improved energy usage, capacity building, identifying scientific, legal and policy experts, and disaster preparedness are all instrumental in the smooth transition of the existing legal and policy framework to adapt to a climate-inclusive agricultural framework. Additionally, the importance of educating and incentivizing farmers about the importance of climate concerns in agricultural practices cannot be overstated. Ultimately, these enabling conditions along with a solid legal and policy intervention in the agricultural sector could be the fundamental yet significant steps in creating a climate-inclusive agricultural legal framework in India and lead India to the pathway of achieving its climate commitments and goals.

LEGAL TRANSPLANTS AS SEEN IN THE COMPARATIVE ANALYSIS OF JUDICIAL DECISIONS ON THE ENVIRONMENTAL PERSONHOOD OF RIVERS

**Mrinalini Shinde*

ABSTRACT

The article seeks to foremost answer the question: how have courts in differing jurisdictions, in different major legal systems, geographic regions, different economic conditions and linguistic traditions addressed the question of the legal personhood of rivers? Following the dissent in the United States Supreme Court judgment in 1972, the past decade has seen an expansion of the legal personhood of rivers: in Ecuador in 2011, followed by a legislation passed in New Zealand in 2012, and judgments in Colombia, India and Bangladesh in 2016, 2017 and 2019 respectively have witnessed the emergence of a new transnational environmental jurisprudence regarding environmental legal personality, particularly in the context of rivers. Using the test case of environmental legal personality, the article examines how the act of comparison, and the use of method in comparative law is beneficial, particularly in environmental legal jurisprudence. In this context, the article first discusses the rationale in comparative law and how legal transplants operate: the transportation of legal norms across jurisdictions. This is followed by a discussion on how the method of comparing judicial decisions, or the cases-approach adds value to comparison. With this background, the article provides an overview of judicial developments in the United States, New Zealand, Ecuador, Colombia, India and Bangladesh on the legal personhood of rivers, with the motivation to uphold the rights of nature and promote the conservation of those rivers. The analysis of the judgments helps us observe this legal transplant in environmental law and gain a better understanding of how legal systems interact with each other.

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I. INTRODUCTION

This article aims to explore the evolution and expansion of environmental rights in multiple jurisdictions through a comparative analysis of judicial decisions. The article first intends to lay out the theory within comparative law as a discipline, especially regarding its application in environmental law, and the use of comparative law methods to discuss the why and how of the exercise in comparison, and how the study of judicial decisions is valuable as an exercise in comparative law. This is followed by a brief explanation of the method used in this particular article in keeping with the literature on comparative law research design. I will then discuss judgments, from the United States, New Zealand, Ecuador, India, Colombia, and Bangladesh. Since these judgments followed each other within a period of a decade, there is basis for inquiry regarding the extent of legal transplanted that has taken place in the expansion of the limits of legal personhood to include rivers, especially when one decision cites another from a foreign jurisdiction on the issue within the *obiter dictum*.

II. WHY COMPARE? THEORETICAL UNDERPINNINGS

The theory of comparative law is expansive in the ways in which it addresses its questions and employs its methods. The use of comparative law is in itself a method of legal analysis. There is some debate whether comparative law should be characterised as a method of legal research or as a perspective instead, which as Dr. Simone Glanert, Director of the Kent Centre for European and Comparative Law, describes as allowing “*for a relativization of the posited law, not unlike economic analysis or feminist theory*”.¹

Comparative law is criticised by scholars for being repetitive and sterile, and engaging in a superficial exercise of satisfying curiosity, similar to gathering information on sports trivia or philately, with evidently negative impressions of the discipline.² Comparatist scholars have defended

¹ S. Glanert, *Method?* in *Methods of Comparative Law*, 61, 62 (P.G. Monateri, 2012); See P. Legrand, *Beyond Method: Comparative Law as Perspective*, 36 *American Journal of Comparative Law* 788, 789 (1988).

² C. Valcke, *Comparative Law as Comparative Jurisprudence - The Comparability of Legal Systems*, 52 *The American Journal of Comparative Law* 713, 714-715 (2004).

comparative law reiterating its strength in the multiple purposes it can serve, and that it is misplaced to distil one single purpose for its deployment.³

Prof. Mark Van Hoecke, Professor of Comparative Law at Queen Mary University of London, has explained this multiplicity of purposes served by comparative law research, stating the aim and research questions of a project make space for the location of comparative law or lack thereof, such as if the aim is to harmonize law between countries (for example in the European Union) then, comparison is implied, and the approach to harmonisation will be determined by that act of comparison.⁴ The decision to compare the environmental personhood of rivers in multiple jurisdictions arose precisely owing to the judicial decision by a court in India, the legal system which I am qualified in, thus confirming Van Hoecke's aforementioned characterisation of comparative legal research.

My interest in this comparison was further informed by the potential of the cases discussed later in the article as not only relating to comparative environmental law, but also comparative constitutional law. From the vantage point of India, the expansion of rights, particularly towards the protection of the environment has been based in transformative interpretation of India's Constitution. It is relevant to explore to which extent that is the case in other jurisdictions or if other statutory or right-based mechanisms outside of constitutional environmental law can surface in the judicial decision-making on the topic. This is because constitutions can also offer a window into understanding those particular legal cultures. When constitutions are considered as "*phenomena of culture*", they transcend the borders of the instrumental paradigm, and take on symbolic value. Comparison is able to move from legal positivism to an understanding of how that culture as "*the collective ensemble of artefacts, practices, and spaces enmeshed in the production and dissemination of meanings and knowledges*" informs the

³ Ibid.

⁴ M.V. Hoecke, *Methodology of Comparative Legal Research*, Law and Method (2015), available at <https://www.bjutijdschriften.nl/tijdschrift/lawandmethod/2015/12/RENM-D-14-00001>, last seen on 30/11/2020.

constitution and constitutional decision-making.⁵ This is especially relevant to environmental jurisprudence; in India we have a decade-long body of judicial decisions involving transformative constitutional interpretation to expand the right to life to include environmental rights, in a specific historic and social context, particularly following the events of the Bhopal gas disaster in 1984.

1. Transplants

An important invention in comparative legal studies: the legal transplant, is of particular relevance to the question of legal personhood of rivers. The late Scottish legal historian Alan Watson, one of the foremost scholars on legal transplants, describes transplants as “*the moving of a rule or a system of law from one country to another, of from one people to another*”.⁶ The study of transplants and how they are received includes comparing and understanding legal cultures, given that transplants and receptions have shaped the world’s legal systems.⁷

Legal transplants can be made for a variety of reasons, including imitation for the purpose of prestige, or for the purpose of imposition. There are legal cultures that seek to impose their systems and can succeed if they have the power to do so, as observed in the diffusion of legal systems by violent and invasive colonial regimes. However, diffusion based on force alone can be reversed when the force is removed. Another reason for transplantation can be the intention to appropriate the work of others owing to factors such as prestige.⁸ The study of transplants in the last few decades has progressed considerably, from simplistic notions such as that it often involves transmission from “*an advanced (parent) civil or common law system to a less developed one*”, to the possibility of modernising or addressing voids in local legislation.⁹

⁵ G. Frankenberg, *Comparative constitutional law*, in *The Cambridge Companion to Comparative Law* 171, 172-173 (M. Bussani & U. Mattei, 1st ed., 2012).

⁶ A. Watson, *Legal transplants* 21 (1st ed., 1974).

⁷ M. Graziadei, *Comparative Law as the Study of Transplants and Receptions*, 442 in *The Oxford Handbook of Comparative Law* (M. Reimann & R. Zimmermann, 2nd ed., 2006).

⁸ R. Sacco, *Legal formants: A dynamic approach to comparative law*, 39(2) *American Journal of Comparative Law* 343, 398 (1991).

⁹ W. Twining, *Globalisation And Legal Scholarship*, 51-52 (2009).

There is agreement in a certain section of comparative law scholars that the very study of comparative law is the study of legal transplants, and how rules transport themselves through different legal systems. However, this view has its limitations since often it adds no value to merely understand how rules are transplanted from one system to another unless one is aware of the historical and political events that have shaped the conditions that enabled such transplantation.¹⁰ In a secondary analysis of sorts relating to transplants by Prof. J.C. Hage, Chair of Jurisprudence at the Maastricht University Law School, it is important to study how both legal and non-legal factors lead to development of law, and whether these developments are aligned across the jurisdictions studied.¹¹ It is my understanding that coordinated efforts by local and indigenous communities on the question of rights of nature, across the jurisdictions studied in this article, coincided and possibly correlated with the development of judicial and then legislative development on the issue, which follows from Hage's thesis.¹²

III. COMPARATIVE LAW METHODS AND A FOCUS ON JUDICIAL DECISIONS

While there is a vast body of literature on the various methods within comparative law, this section focuses primarily on the use of the cases-approach. The next section uses the cases-approach for the purpose of comparing environmental personhood in multiple jurisdictions. Comparative lawyers are not only interested in foreign legal systems, but also in domestic law, developing skills and methods which have relevance in litigation, the potential of comparative work to be cited in judicial decisions, and its value in solving problems in case law.¹³ Issues in case law from other systems can deepen the understanding of the domestic problems and ways of solving them.¹⁴

¹⁰ W.B. Ewald, *Comparative Jurisprudence (I): What Was it Like to Try a Rat?*, 143 *University of Pennsylvania Law Review* 1889, 1938 (1995).

¹¹ J. Hage, *Comparative Law as Method and the Method of Comparative Law*, in *The Method and Culture of Comparative Law. Essays in Honour of Mark Van Hoecke* 37, 45 (M. Adams & D. Heirbaut, 1st ed., 2015).

¹² *Ibid*, at 52.

¹³ G. Samuel, *An Introduction to Comparative Law Theory and Method*, 17 (1st ed., 2014).

¹⁴ *Ibid*, at 19.

In this particular instance of comparing judgments, I would argue that the cases approach serves the larger functionalist method, given that the judgments studied are from the higher courts, all fulfilling similar if not identical functions of judicial decision-making on environmental legal issues and the rights of nature. Even if doctrinally different, the study of these functionally equivalent institutions enables a comparatist to observe litigation problems in a particular legal system and examine how different legal systems solve the same problem.¹⁵ However, to compare case law and legislation effectively, a knowledge of historic, social, economic and political context of the cases is essential.¹⁶

Van Hoecke's characterisation of the 'cases-approach' in comparative analysis as being deficient is that it is not an adequate way of showing differences and commonalities between entire legal systems, given that they offer only a pathology of that system. This critique is important to this article given that the cases analysed are usually limited to the Supreme Court and higher court decisions, and it is questionable as to what extent it provides the correct picture of a legal system.¹⁷ However, there is still value in using the cases approach because while it may not offer a complete picture of the legal system, the study of judicial decisions allow us to examine how rules work in practice, and how legal practitioners within that legal system interact with those rules.¹⁸

The value of the cases-approach is also evidenced by its use in the courtrooms, as judges conduct their own exercise in comparison by analysing how the problems have been resolved by other jurisdictions, particularly when there is a discernible relationship between courts, such as in the case of the Court of Justice of the European Union ("**CJEU**") or European Court of Human Rights ("**ECHR**") and domestic courts of the European Union ("**EU**") States. Gless and Martin found that when studying the CJEU and ECHR, "*courts are rather inclined to 'borrowing' legal discourse from another country and thus may join the 'global community of courts'*". The

¹⁵ Ibid, at 67.

¹⁶ Supra 4, at 7.

¹⁷ M.V. Hoecke, *Deep Level Comparative Law* 446 in *Epistemology and Methodology of Comparative Law* (M.V. Hoecke, 1st ed., 2004).

¹⁸ Ibid, at 447.

European Courts also use this method of choosing and enhancing when comparing the laws of their respective Member States.¹⁹

Sabino Cassese, Professor and Judge of the Constitutional Court of Italy, writes that there is extensive evidence of constitutional court judges resorting to comparison, and that constitutional courts do consider foreign judgements while drafting their decisions, especially when the Constitution itself allows for judges to take into consideration foreign law, as emphasised in section 39 of the South African Constitution. Moreover, national legal orders adhering to supranational regimes, as seen in cases of international legal orders being drafted into legislation, such as the issue of refugee rights, which ultimately paves way for a new global constitutional order. Globalised constitutionalism “*renders constitutional borders permeable and acts as a bridge, encouraging local courts to look beyond national borders*”, and there is value in courts citing foreign courts, and developing the cases-approach of comparison in their judgments.²⁰

However, there is opposition to this approach by some judges using the argument of legitimacy, with critics asserting that borrowing foreign law may not be democratic, and insisting on “*legal particularism*,” an argument which has been put forth in the United States as well. Cassese points out the inherent nativist superiority in this thinking by stating that “*where those who oppose the use of foreign law by American courts do not, to my knowledge, also oppose the use of US law by foreign courts*”.²¹ Courts making reference to foreign laws and decisions is not so much a surrender of sovereignty as much as engaging in a discussion of what legal developments outside of the immediate context have preceded the case at hand.²² The judge uses the decisions for persuasive value just as much as a lawyer would in arguing before the judge.

The research design for this brief analysis of judicial decisions on the environmental personhood of rivers in the United States, New Zealand,

¹⁹ S. Gless & J. Martin, *The comparative method in European Courts: A comparison between the CJEU and ECtHR?*, 1(1) Bergen Journal of Criminal Law & Criminal Justice 36, 36-37 (2013).

²⁰ S. Cassese, *Legal Comparison by the Courts*, 9(1) *Revista Jurídica Piélagus* 21, 22 (2010).

²¹ *Ibid*, at 24-25.

²² *Ibid*.

Ecuador, India, Colombia and Bangladesh is based on the fundamental question: how have courts in differing jurisdictions (in different legal systems and geographic regions, different economic conditions and in two different linguistic traditions) addressed the question of the legal personhood of rivers.

Although comparative law uses multiple epistemological approaches, this article uses the functionalist method. Since courts provide similar decision-making functions in these countries, the article examines how these courts have granted or recognized the legal personhood of rivers, and through that, more generally of environmental persons.²³

In studying the requisite case laws, this article presumes that the judgments do not offer an accurate or comprehensive overview of the living law of that society.²⁴ For an extended research design of this topic, a greater study using methods in legal history, sociology and anthropology regarding the relationship between societies and individual persons with their ecosystems, and the recognition of rights including customary norms and indigenous practices is required. This article aims to provide merely an introduction to the possibilities of that comparison.

IV. COMPARING JUDGMENTS ON THE LEGAL PERSONHOOD OF RIVERS

The evolution of environmental law as a distinct discipline of legal research, and the study of how the environment is protected through judicial process is a relatively recent development from the 1960s onward. An on-going quandary in environmental law is how the environment can be best represented before the courts, and how nature can be protected for its own sake, beyond the anthropocentric use and consumption of it. Understanding environmental harm beyond the limited extent to which it harms humans, is crucial to the protection of the environment in law, incentivising the expansion of the rights of nature from an environmental

²³ E.L. O'Donnell & J. Talbot-Jones, *Creating legal rights for rivers: lessons from Australia, New Zealand, and India*, 23(1) *Ecology and Society* (2018), available at <https://doi.org/10.5751/ES-09854-230107>, last seen on 30/11/2020.

²⁴ *Supra* 4, at 17-18.

protection perspective. This is also because, in not accounting for environmental harm beyond the damage caused to humans or legal persons such as corporations, the law ignores and externalises the costs of that harm, making limited rights of nature an inefficient method of protecting nature.

The concept of personhood has greatly evolved over the years; Aristotle's conception was that while women or slaves were nominally human, and without souls, they did not possess legal personhood and the rights that accompanied being a full legal person in Athenian society. Roman law, derived from the Greek antecedents, distinguished between persons and property; however, with there being further distinction in the latter with the gradation of slaves, and creating a context where persons could shift from the status of person to property in case of conquered slaves, for instance.²⁵ As canon law evolved, the expansion of rights to women, and the emancipation of slaves illustrated the extents to which humans and persons were interchangeable. The rise of trade and the invention of the Corporation, and the State, and the Church, led to the widespread diffusion of the non-human legal person as an entity, with rights to sue, to enter into contracts and the State's rights to enforce the law.²⁶

However, this is only the trajectory of what we understand as the Western concept of a legal person. Indigenous philosophies have personified nature in a way that "*naturalize[s] the human person, bringing her into genealogical relations with particular lands*".²⁷ Several scholars have called for a shift from a binary system of legal personhood within nature which instead of granting personhood or lack thereof to natural entities, provides it for certain purposes or degrees in the interest of a particular legal goal. This has also been the case in company law and the law of trusts with respect to creating the corporate entities or trusts.²⁸

²⁵ D.J. Calverley, *Imagining a non-biological machine as a legal person*, 22(4) *AI & Society* 523, 525 (2008).

²⁶ *Ibid.*

²⁷ M. Tănașescu, *Rights of Nature, Legal Personality, and Indigenous Philosophies*, 9(3) *Transnational Environmental Law* 429, 453 (2020).

²⁸ L.C. Pecharroman, *Rights of Nature: Rivers That Can Stand in Court*, 7 *Resources* 1, 3 (2018).

Before proceeding to the judgments, I wish to provide some background from other jurisdictions as well. While several jurisdictions including Bolivia and Mexico have recognised the rights of nature in their legislation, along with separate body of jurisprudence on the rights of animals, this article limits itself to the recognition of the legal personality of rivers, as an illustration of how legal transplants can operate within domestic environmental law. New Zealand's recognition of the legal personality of the Whanganui River in 2012, while not contained in a court judgment, has been included in this set, as it emerged from an adjudicatory process, and has had tremendous effect in codifying the legal personality of the river through legislation. The following judgment by the United States Supreme Court in 1972, while did not ultimately decide in favour of granting environmental personhood to rivers, stands as an example of how norms be birthed through dissents within judgments as well.

1. United States

In *Sierra Club v. Morton*,²⁹ decided by the US Supreme Court in 1972, Justice William O. Douglas' dissenting opinion dealt with the issue of legal personhood of natural entities, for environmental conservation. The petitioner, Sierra Club was a membership-based corporation and sought a declaratory judgment and injunction to prevent the approval of extensive skiing development in the Sequoia National Forest. It was a public action, and the petitioner did not themselves face any harm/loss. The Court held that the petitioner lacked legal standing as they faced no irreparable injury. Justice William O. Douglas dissented from this view and stated that natural resources should have the ability to sue for their own protection, stating:

So, it should be as respects valleys, alpine meadows, rivers, lakes, estuaries, beaches, ridges, groves of trees, swampland, or even air that feels the destructive pressures of modern technology and modern life. The river, for example, is the living symbol of all the life it sustains or nourishes—fish, aquatic insects, water ouzels, otter, fisher, deer, elk, bear, and all other animals, including man, who are dependent on it or who enjoy it for its sight, its sound, or its life. The river as plaintiff speaks for the ecological unit of life that is part of it. Those people who have a meaningful relation to that body of water—whether it be a fisherman, a canoeist, a

²⁹ *Sierra Club v. Morton*, 405 U.S. 727.

zoologist, or a logger—must be able to speak for the values which the river represents and which are threatened with destruction...
(Emphasis added)

Justice Douglas’s dissent in *Sierra Club* in as early as 1972 recognised that individuals seeking environmental protection encounter difficulty, and the fact that regulatory agencies can be “*notoriously under the control of powerful interests who manipulate them through advisory committees, or friendly working relations*” such as the relationship between the Forest Service and the timber companies in this case.³⁰

It is clear, that the question of the legal personality of nature, ecosystems and in this case rivers, isn’t a radical new innovation, or an anomaly of jurisprudence.³¹ The dispersion of the normative idea of granting environmental legal personality has been long time in the making,³² but we observe that only in the past decade starting with Ecuador in 2011, followed by New Zealand in 2012, and then followed by Colombia in 2016, India in 2017, and Bangladesh in 2019, is the norm gaining traction in its dispersion, and the legal transplantation of the norm can then be observed. The following cases continue to illustrate this using the cases-approach in comparative legal studies, and particularly legal transplants in environmental law.

2. New Zealand

In New Zealand, the struggle to establish the rights of the Maori indigenous communities over the river Wanganui started in the 1870s to protect the land and water from exploitation and overfishing.³³ The Waitangi Tribunal was set up in 1975 to resolve the disputes of the Maori ingenious communities with respect to their rights to the river Whanganui, and after a through fact-finding process, published a report in 1999 which “*recognised Maori interests in the river, including their authority (mana and*

³⁰ C. McDonough, *Will the River Ever Get a Chance to Speak: Standing up for the Legal Rights of Nature*, 31(1) Villanova Environmental Law Journal 143, 158-159 (2020).

³¹ M. RiverOfLife et al., *Recognizing the Martumarra's First Law Right to Life as a Living Ancestral Being*, 9(3) Transnational Environmental Law 541, 552 (2020).

³² See D.R. Boyd, *Recognizing the Rights of Nature: Lofty Rhetoric or Legal Revolution*, 32 Natural Resources & Environment 13 (2018).

³³ L. Schimmöller, *Paving the Way for Rights of Nature in Germany: Lessons Learnt from Legal Reform in New Zealand and Ecuador*, 9(3) Transnational Environmental Law 569, 575 (2020).

rangatratanga) over the whole of the River as represented by the Whanganui River Maori Trust Board”, and the “recognition of the Whanganui River as *Te Ava Tupua*, a living being and entity in its own right, and the unique status of the Whanganui River in relation to *Te Ava Tupua* and its governance”.³⁴ The relationship of the Maori to the river, as their ancestor, and that the river is part of them and they part of the river, and that the river is not property that can be owned but is a person in itself has now been granted legal basis within New Zealand’s laws, after the Tribunal’s decision, and the enactment of Treaty of Settlement.³⁵ The Treaty, called *Tfifitohu Whakaturua*, was settled in 2012, and completed in 2014, with a supplementary deed enacted in 2016. In 2017, New Zealand adopted *Te Ava Tupua* (Whanganui River Claims Settlement) Act³⁶ which recognised the Whanganui River as a legal entity indivisible from the local Māori communities, recognising the community’s customary rights to property and fishing relating to the river.³⁷ It is important to note that the ownership rights and customary title rights of local community had been contested for several decades, and the government did not wish to transfer ownership rights directly to the claimants, therefore the solution was to grant the river a legal personality in a manner that the titles could be transferred to the river and then governed through the aforementioned Settlement Treaty.³⁸

³⁴ E.C. Hsiao, *Whanganui River Agreement – Indigenous Rights and Rights of Nature*, 42(6) *Environmental Policy & Law* 371, 372-373 (2012); See T. Butcher-Cornet, *Recognising Indigenous Conceptions of Custodianship in Environmental Law*, 28 *Australian Law Librarian* 156, 157-158 (2020).

³⁵ A. Hutchison, *The Whanganui River as a Legal Person*, 39(3) *Alternative Law Journal* 179 (2014).

³⁶ A. Lillo, *Is Water Simply a Flow: Exploring an Alternative Mindset for Recognizing Water as a Legal Person*, 19 *Vermont Journal of Environmental Law* 164, 174 (2018).

³⁷ A. Argyrou & H. Hummels, *Legal personality and economic livelihood of the Whanganui River: a call for community entrepreneurship*, 44 *Water International* 752 (2019) available at <https://doi.org/10.1080/02508060.2019.1643525>, last seen on 11/01/2021; See T. Collins & S. Esterling, *Fluid Personality: Indigenous Rights and the Te Ava Tupua (Whanganui River Claims Settlement) Act 2017 in Aotearoa New Zealand*, 20(1) *Melbourne Journal of International Law* 197, 201 (2019).

³⁸ K. Sanders, *Beyond Human Ownership: Property, Power and Legal Personality for Nature in Aotearoa New Zealand*, 30(2) *Journal of Environmental Law* 207, 216 (2018).

3. Ecuador

*Richard Frederick Wheeler and Eleanor Geer Huddle v. Provincial Government of Loja*³⁹

The judgment was in response to an injunction petition before the Provincial Justice Court of Loja in favour of the Vilcabamba River, relating to a road-widening project along the river which was interfering with the hydrology and water flow of the river and posing as a flood hazard for the local population. The government of Loja deposited rocks and excavated material into the river Vilcabamba, resulting in flooding which affected local citizens. Two United States citizens residing near the Vilcabamba filed a protective action, in favour of nature and the Vilcabamba river.⁴⁰

The Court in its ruling issued the Constitutional Injunction 11121-2011-0010 recognizing that “*damages to nature are generational damages, defined as such for their magnitude that impact not only the present generation but also future ones*”. In its remedial model the Court included several components, including a public apology from the government for causing damage to the River, establishment of a reparations mechanism for the government of Loja to create a remediation and rehabilitation plan of areas affected by the road widening project while creating a delegation and Ombudsman to follow up on the implementation of the ruling, adopting immediate actions to ensure environmental permits to protect against water pollution in the Vilcabamba, and to implement warning systems to prevent future damage and clean up the existing damage to the river.⁴¹

Most importantly while deciding on the question of the rights of nature in the context of the river, the Court established that “*the right that nature has to be fully respected in its existence and maintenance of its vital cycles, structure, functions,*

³⁹ Richard Frederick Wheeler and Eleanor Geer Huddle v. Provincial Government of Loja, Trial 11121-2011-0010 (30/03/2011).

⁴⁰ J. Colon-Rios, *The Rights of Nature and the New Latin American Constitutionalism*, 13(1) New Zealand Journal of Public and International Law 107, 111 (2015).

⁴¹ E. Daly, *The Ecuadorian Exemplar: The First Ever Vindications of Constitutional Rights of Nature*, 21(1) Review of European, Comparative & International Environmental Law 63, 64 (2012).

and evolutionary processes".⁴² Further, the Court held that in order for the plaintiffs to successfully claim in favour of the rights of nature, the burden of proof was not on the plaintiffs to prove that harm had resulted from the Defendant's actions; instead, the Defendant had the burden to prove that their actions did not result in harm.⁴³

While the judgment did pioneer the trend of granting legal personality to rivers, it is important to note that it went beyond merely granting it that status, it also created a complex remedial model to address river pollution including insisting on public acknowledgement and apology for environmental harm, and clarified that in cases of claims involving the rights of nature, the burden of proof did not lie with the plaintiffs.

4. Colombia

In 2016, the Colombian Constitutional Court (*Corte Constitucional de Colombia*)⁴⁴ declared that the Atrato River basin possessed the rights to "*protection, conservation, maintenance, and restoration*".⁴⁵ The NGO, *Tierra Digna* had filed a claim on behalf of the councils of Afro-descendent communities, to protect their right to life and the environment, in relation the toxic dumping of mercury in the Atrato river. The judgment was the first decision to recognise the river as a legal entity, and recognised the river both as a living entity and an autonomous subject in itself, while also granting protection to communities residing around the river, in its basin.⁴⁶ The Court based its decision in the principle of social rule of law (*Estado Social de Derecho*) and their Ecological Constitution, which placed the protection of nature as the foremost public interest, above the fundamental rights of individuals. It is important to note that the Court also cited the judgment on the Vilcabamba delivered by the Provincial Justice Court of

⁴² N. Greene, *The First Successful Case of the Rights of Nature Implementation in Ecuador*, Global Alliance for the Rights of Nature, available at <https://therightsofnature.org/first-ron-case-ecuador/>, last seen on 30/11/2020.

⁴³ *Supra* 40.

⁴⁴ *Tierra Digna v. Presidencia da Republica*, Colombian Constitutional Court, ruling T-622 of 10/11/2016 Expediente T-5.016.242.

⁴⁵ *Ibid.*

⁴⁶ X.S. Camargo, *The Ecocentric Turn of Environmental Justice in Colombia*, 30(4) *King's Law Journal* 224, 225 (2019).

Loja in 2011.⁴⁷ Notably, the Court also cited the settlement treaty recognising the personhood of the Whanganui river (*Te Awa Tupua Act*) in New Zealand.⁴⁸

The Court confirmed the harmful effects of illegal mining in the Atrato river basin, and harms to current and future generations, and recognised that the river was a “*sujeto de derecho*” or subject of rights, because there was a necessity to establish a legal tool which offered equity and justice to nature, and the human relationship with nature.⁴⁹ The Court made an important observation that the existing mining legislation was anthropocentric, and it was necessary to depart from this anthropocentric view of rights (such as the right to extract mineral resources) and instead characterise the Atrato itself to be a legal entity bearing rights. The judgment included a direction which stated that the national government was to be the joint guardian of the river, together with the local ethnic communities, and representation would be organised through the Commission of the Guardians of the Atrato River (*Comision de Guardianes del Rio Atrato*).⁵⁰ There was particular emphasis in the judgment regarding the importance of public participation and the involvement of indigenous and Afro-descendent communities in the decision-making involving the Atrato.⁵¹

Subsequently in 2018, the Supreme Court of Colombia (*Corte Suprema de Justicia de Colombia*),⁵² recognised the legal rights of the Amazon River ecosystem declaring that “*for the sake of protecting this vital ecosystem for the future of the planet, it would ‘recognize the Colombian Amazon as an entity, subject of rights,*

⁴⁷ A. Pelizzon, *An Intergenerational Ecological Jurisprudence: The Supreme Court of Colombia and the Rights of the Amazon Rainforest*, 2(1) *Law, Technology and Humans* 33, 39 (2020).

⁴⁸ CELDF, *Press Release: Colombia Constitutional Court Finds Atrato River Possesses Rights* (04/05/2017) available at <https://celdf.org/2017/05/press-release-colombia-constitutional-court-finds-atrato-river-possesses-rights/>, last seen on 30/11/2020.

⁴⁹ P.V. Calzadilla, *A Paradigm Shift in Courts' View on Nature: The Atrato River and Amazon Basin Cases in Colombia*, 15 *Law, Environment and Development Journal* 1, 6 (2019), available at <https://bit.ly/3sLLf5o>, last seen on 11/01/2021.

⁵⁰ *Ibid*, at 7.

⁵¹ E. Macpherson, J.T. Ventura & F.C. Ospina, *Constitutional Law, Ecosystems, and Indigenous Peoples in Colombia: Biocultural Rights and Legal Subjects*, 9(3) *Transnational Environmental Law* 521, 522 (2020).

⁵² *Justicia y otros v. Presidencia da Republica y otros*, Colombian Supreme Court, ruling STC4360 of 4/05/2018.

and beneficiary of the protection, conservation, maintenance and restoration' that national and local governments are obligated to provide under Colombia's Constitution".⁵³

5. India

*Mohd. Salim v. State of Uttarakhand and Ors.*⁵⁴

The judgment by the Uttarakhand High Court (at the state level), in response to a public interest litigation challenging the mining of the riverbeds of the Ganga and Yamuna and the ensuing pollution, and other questions of water quality led to the Court recognising the two largest rivers in India to be legal persons. In this particular case, the Uttarakhand High Court was hearing this matter for the creation of the Ganga Management Board. The Court had ordered for the creation of the Board previously, but the State Governments of Uttar Pradesh and Uttarakhand were not cooperating with the Union Government for the same. The Court expressed their displeasure with respect to this and also observed that the rivers Ganga and Yamuna were losing their very existence. In light of this, the Court noted the need to take extraordinary measures for their preservation, conservation and protection. The final decision of Court included the declaration that:

[w]hile exercising the *parens patrie* jurisdiction, the Rivers Ganga and Yamuna, all their tributaries, streams, every natural water flowing with flow continuously or intermittently of these rivers, are declared as juristic/legal persons/living entities having the status of a legal person with all corresponding rights, duties and liabilities of a living person in order to preserve and conserve river Ganga and Yamuna. The Director NAMAMI Gange, the Chief Secretary of the State of Uttarakhand and the Advocate General of the State of Uttarakhand are hereby declared persons *in loco parentis* as the human face to protect, conserve and preserve Rivers Ganga and Yamuna and their tributaries. These Officers are bound to uphold the status of Rivers Ganges and Yamuna and also to promote the health and well-being of these rivers.⁵⁵

⁵³ N. Bryner, *Colombian Supreme Court Recognizes Rights of the Amazon River Ecosystem*, IUCN (20/04/2018), available at <https://www.iucn.org/news/world-commission-environmental-law/201804/colombian-supreme-court-recognizes-rights-amazon-river-ecosystem>, last seen on 30/11/2020; See P. Parenteau, *Green Justice Revisited: Dick Brooks on the Laws of Nature and the Nature of Law*, 20 Vermont Journal of Environmental Law 183, 185-186 (2019).

⁵⁴ *Mohd. Salim v. State of Uttarakhand and Ors.*, 2017 SCC Utt 367 [*"Mohd. Salim"*].

⁵⁵ *Ibid*, at ¶ 19.

Before reaching this decision, the Uttarakhand High Court discussed jurisprudence regarding juristic persons, especially with respect to religious entities. The Court noted that the rivers Ganga and Yamuna are considered to be sacred and worshipped by Hindus. The Court then cited *Yogendra Nath Naskar v. Commission of Income Tax, Calcutta*⁵⁶ to establish that Hindu idols can be held to be juristic persons, capable of holding property and paying taxes through a person as a manager. The Court also discussed the case of *Ram Jankjee Deities v. State of Bihar*⁵⁷ wherein the Supreme Court elaborately discussed the kinds of images as per Hindu authorities and reached the conclusion that it is the 'human concept of a particular divine existence' which grants divinity to an idol.

The Court then relied on the decision and the discussion in the case of *Shiromani Gurudwara Prabandhak Committee, Amritsar v. Shri Somnath Dass*.⁵⁸ In *Shiromani*, the Supreme Court held that the words 'juristic person' connote the recognition of an entity to be in law a person which otherwise it is not. The judgment traced the history of the scope of the term "person" from its exclusionary nature under Roman Law, the US Constitution (prior to the Reconstruction Amendments) etc. The Supreme Court noted that Constitutions, corporations etc. were all creations of the law, due to human necessities. The Court also discussed and cited authorities on jurisprudence with respect to natural and artificial persons. The Court finally concluded that evolution of juristic persons happened for "socio-political-scientific development evolution" and for "subserving the needs and faith of the society". The Court also noted that the relationship between an idol and its shebait/manager is analogous to one between a minor and a guardian. The Uttarakhand High Court then, concluded that to protect the recognition and faith of society, it was imperative to grant legal personality to rivers Ganga and Yamuna. The Court highlighted that these rivers provide physical and spiritual sustenance. Accordingly, legal status was granted under Articles 48A and 51A(g) of the Constitution. It must be noted that the judgment was appealed to the Supreme Court which has currently

⁵⁶ *Yogendra Nath Naskar v. Commission of Income Tax, Calcutta*, (1969) 1 SCC 555.

⁵⁷ *Ram Jankjee Deities v. State of Bihar*, (1999) 5 SCC 50.

⁵⁸ *Shiromani Gurudwara Prabandhak Committee, Amritsar v. Shri Somnath Dass*, (2000) 4 SCC 146.

stayed the judgment, and we await a final decision on the survival of this precedent.

The Indian Supreme Court and other High Courts have had a tradition of looking towards Hindu notions of religious duty, or individual duty towards God and society, influencing decision-making regarding environmental protection, which is further confirmed by the constitutional duties in India regarding the protection of the environment.⁵⁹ The judgment by the Uttarakhand High Court relies heavily on Hindu traditions to protect the river, including the personified role that the two rivers occupy in Hindu mythology and exercise of faith and worship, as the rationale for recognising their legal personhood.⁶⁰ The invocation of Hindu religious beliefs as the basis of granting legal personality has been criticised for undermining the legal impact of granting the rivers legal personality, and the very conspicuous omission of the beliefs of other faiths connected to the rivers, and their cultural importance beyond Hinduism is not articulated, making the judgment weak in its reasoning.⁶¹

While this article is limited to rivers, I wish to highlight another subsequent judgment of the Punjab and Haryana High Court in India. In the case of *Court on its own motion v. Chandigarh Administration*⁶² decided in 2020, the High Court granted legal personality to the Sukhna Lake in Chandigarh. It is noteworthy because this judgment has been co-authored by the same Justice who co-authored the judgment in *Mohd. Salim*, and it is evident how a single judge placed across different High Court in India (both Uttarakhand, and Punjab & Haryana) has been at the helm of granting legal personality to rivers, a lake, and the entire animal kingdom.⁶³ In the latter case, when the Uttarakhand High Court extended legal personality to the entire animal kingdom, it relied heavily on Hindu mythology in making its reasoning, referring to how Hinduism, Jainism and Buddhism deify

⁵⁹ W.F. Menski, *Hindu law: the search for appropriateness in Comparative Law in a Global Context: The Legal Systems of Asia and Africa* 196, 268-269 (2006).

⁶⁰ *Mohd. Salim*, at ¶ 19.

⁶¹ See C. Clark et al., *Can You Hear the Rivers Sing: Legal Personhood, Ontology, and the Nitty-Gritty of Governance*, 45(4) *Ecology Law Quarterly* 787, 816 (2019).

⁶² *Court on its own motion v. Chandigarh Administration*, CWP No. 18253 of 2009 & other connected petitions, Punjab and Haryana High Court (02/03/2020).

⁶³ *Narayan Dutt Bhat v. Union of India and Ors.*, 2018 SCC OnLine Utt 645.

animals, and how animals are associated with gods in Hindu mythology.⁶⁴ Through this particular judgment, in expanding legal personality to the Sukhna Lake, all citizens of Chandigarh were declared in *loco parentis* of the Lake, for its conservation and protection. By way of a common order, the Court decided seven related petitions, reiterating that protection of ecologically sensitive zones like the Sukhna Lake is the duty of the government under the public trust doctrine, and thereby bridged the doctrine of public trust and the concept of environmental legal personality by declaring citizens of Chandigarh as *in loco parentis*. The judgment primarily follows the same legal rationale, cases and authorities that were relied upon in *Mobd. Salim*.

6. Bangladesh

The High Court division of the Supreme Court of Bangladesh joined courts in Ecuador, Colombia, and India in granting legal personality to rivers, this time in the case of the River Turag. In response to the Writ Petition filed by the NGO *Human Rights and Peace for Bangladesh*,⁶⁵ regarding the pollution and encroachment in the river Turag and its riverbeds, the Court held that based on the doctrine of public trust being an integral part of Bangladesh's laws, the River Turag was "*declared as legal person/legal entity/living entity*" and that "*all rivers flowing inside and through Bangladesh will also get the same status of legal persons or legal entities or living entities*".⁶⁶ The Court declared the National River Conservation Commission (NRCC) as *person in loco parentis* of all the rivers in Bangladesh⁶⁷ and directed the government to amend the National River Conservation Commission Act, 2013 "*by inserting provisions of criminal offences for river encroachment and its pollution with stricter punishment and fines, and also procedure of institution of case, its investigation and trail*".⁶⁸ Along with giving directions to various government authorities

⁶⁴ M. Shinde & K.W. Junker, *Horse before the Cart: Discussing the Legal Fiction of Animal Personhood in India*, VII Bharati Law Review 1, 10 (2019).

⁶⁵ WP No. 13989/2016 filed on 7/11/2016, Judgment dated 30/01/2019, order dated 03/02/2019.

⁶⁶ Human Rights and Peace for Bangladesh, *Turag River Case*, ¶ 2 available at <http://www.hrp.org.bd/upload/judgement/Writ-Petition-No.-13989-of-2016-only-17-directions--River-Turag-Case.pdf>, last seen on 11/01/2021.

⁶⁷ *Ibid*, at ¶ 3.

⁶⁸ *Ibid*, at ¶ 8.

to encourage education regarding water resources and rivers, including the Director General, Bangladesh Television,⁶⁹ the Court also directed authorities to *“prepare a list of all local river encroachers and polluters and to put them up on notice boards at their all local offices and on billboards within six months with a view to informing the public about such river grabbers”*.⁷⁰ It also declared that the polluter pays principle and the precautionary principle was the law of the land.⁷¹ In a unique enforcement mechanism, the Court added an element of practical enforceability to the public trust doctrine, stating that:

As the environment, climate, water lands, sea, sea-beach, river, foreshore of river, canal-bill, hawor-bawor, nala, jhil, jhiri, and all open water bodies, mountains, forests, wild animals, and air is the Public Trust Property or Public Property, hence, Bangladesh Bank is directed to issue circular with necessary instructions to all the Scheduled Banks of Bangladesh declaring any institution, company, or person involved in encroachment of such lands or pollution thereof, ineligible for any loans there from. The Governor, Bangladesh Bank is also directed to submit an affidavit-of-compliance to this Court within six months as to the implementation of such directions.⁷²

In what might appear to be an overreach when deciding an environmental legal matter, as it strikes at the heart of representative democracy and adult franchise, the Court added another direction to the Election Commission: *“to disqualify all encroachers and polluters of such properties from contesting any type of elections of Union, Upozila, Municipality, Zila Parishad and Nation al Parliament Election and to submit an affidavit to this Court within six months containing a list of those people.”*⁷³

As we can observe, the Court in the Turag case, not only granted the Turag legal personality, but also all of the rivers in Bangladesh, and displayed significant ambition and innovation in providing a multitude of directions to attempt ensuring the protection of Bangladesh’s rivers. However, this seeming excess was soon decided upon the by the Appellate division.

⁶⁹ Ibid, at ¶¶ 10-12, ¶¶ 16-17.

⁷⁰ Ibid, at ¶ 13.

⁷¹ Ibid, at ¶ 4.

⁷² Ibid, at ¶ 14.

⁷³ Ibid, at ¶ 15.

The judgment was challenged by a jute manufacturing company in 2020,⁷⁴ before the Appellate Division of the Supreme Court of Bangladesh, with respect to an encroaching jetty in the river Turag that violated the encroachment, and the Company prayed that the High Court's order be set aside, claiming that the report regarding the boundaries of the river relied upon by the High Court were erroneous. The Appellate Division did not hold in favour of the appellants and ruled that the High Court's decision regarding the removal of encroaching structures and material from the river was lawful. However, in an important ruling, the Appellate division nullified several of the direction of the High Court, including holding that the Court cannot decide if any principle (precautionary or polluter-pays principle) was the law of the land, it was the domain of the Parliament; that Courts cannot direct that a law be amended, may only express its opinion and it was the within the domain of Parliament whether to accept the opinion; the Court cannot direct that a person is ineligible for bank loans based on allegation of river grabbing in the absence of such legislation; nor can the Court direct the Election Commission to declare the electoral ineligibility of any persons. The Appellate Division in its judgment overruling several directions of the High Court, stated that it *"would like to politely point out that the High Court Division, while passing an unnecessary lengthy judgment, has discussed many extraneous matters having no nexus in deciding the merit of the rule"*.⁷⁵

V. CONCLUSION

As discussed above, the past decade has witnessed a series of normative precedents which recognize nature as a legal subject and holder of rights. These judgments contribute not only greater sensitivity to environmental adjudication, but also a reorientation of how we can create eco-centric

⁷⁴ Nishat Jute Mills Limited v. Human Rights and Peace for Bangladesh (HRPB) and others, Civil Petition for Leave to Appeal No. 3039 of 2019, Judgment dated 17/02/2020, available at <http://www.hrpb.org.bd/upload/judgement/Civil-Petition-For-Leave-To-Appeal-No.-3039-of-2019---Legal-and-Living-Status-of-Rivers-of-Bnagladesh.pdf>, last seen on 11/01/2021.

⁷⁵ Ibid, at ¶ 13.

environmental law⁷⁶ as opposed to the anthropocentrism currently inherent in our laws, which govern the use and abuse of nature.

Comparative environmental law when analyzing developments in domestic environmental law, has the potential of also informing and influencing international law. International environmental legal principles such as sustainable development, the precautionary principle, or the polluter pays principle were adopted in the language of domestic legislation and also in the decision-making rationale of courts when deciding environmental issues. The rise of progressive domestic case law in the expansion of rights of nature could possibly lead to consensus between more jurisdictions on these principles, allowing for the potential to encapsulate these ideas within international law through consensus-building among nations. International jurists can also treat these systems as sources of inspiration and ideas of persuasive value.⁷⁷

This article focused on the concept of legal personality when granted to rivers as the hypothetical legal transplant in multiple jurisdictions, with courts successively deciding on the issue across the span of 9 years, starting with Ecuador in 2011, up to the Bangladesh Supreme Court's judgments in 2019 and 2020. The process of comparing or "*doing*" comparative environmental law often involves the study of legal transplants, how legal norms and rules disperse and travel across jurisdictions and understanding, how both legal and extra-legal factors contribute to the transplantation of law. In this article, we see how the Court in Ecuador, basing its reasoning on its ecological constitution and prioritising of nature protection, recognised the legal status of Vilcabamba river, which in turn was quoted and cited by the Court in Colombia in 2016. We also see how the Colombian Court drew inspiration from New Zealand's legislation recognising the Whanganui river as a legal entity, and explicitly cited the *Te Awa Tupua* (Whanganui River Claims Settlement) Act. Even though it is not made explicit, creation of government authorities that are in *loco parentis*

⁷⁶ S. Borrás, *New Transitions from Human Rights to the Environment to the Rights of Nature*, 5(1) *Transnational Environmental Law* 113, 114 (2016).

⁷⁷ J. Ellis, *General Principles and Comparative Law*, 22(4) *European Journal of International Law* 949, 971 (2011).

or guardians of the river has been a consistent theme throughout the judgments, with Colombia creating a hybrid representation system of the public and the government; India limiting the guardianship to the Director of NAMAMI Gange, the Chief Secretary, and the Advocate General of the State of Uttarakhand; and Bangladesh clarifying the government authorities involved in safekeeping of the rivers, while still maintaining that all citizens were guardians of the rivers in Bangladesh. Since the Colombian Court's decision with respect to the Atrato river has been followed by the formation of Commission of Guardians of the Atrato River in 2017, and subsequent court decisions have clarified the legal responsibility of the institutions in charge of ensuring compliance with the rulings with respect to the Atrato River. In a demonstration of how comparative environmental law involving legal transplants can lead to crucial findings, Sheber states,

unlike the ruling in India for the Ganges and Yamuna rivers, the ruling for the Atrato River actually stuck, in part because the court provided more direction, borrowing from New Zealand's model, as to how legal rights for the river would operate, especially given the instruction for formation of the Commission of Guardians.⁷⁸

We see that while the jurisdictions and decisions differ in their legal framework, there are threads of an emerging transnational jurisprudence regarding the rights of rivers as legal persons, and the rights of nature, providing similar functions of protecting and trusteeship over the natural resource and personality of the river.⁷⁹

The study of these judgments reveals how the experiences of multiple jurisdictions in recognising the legal personality of natural entities has helped to diversify the concept, as opposed to only transplanting the idea uniformly. This includes greater clarity on the nature of rights that environmental persons can be bestowed with, whether it is the right to be protected, whether it is the rights to recognition as an ancestor of the

⁷⁸ K. Sheber, *Legal Rights for Nature: How the Idea of Recognizing Nature as a Legal Entity Can Spread and Make a Difference Globally*, 26 *Hastings Environmental Law Journal* 147, 162-163 (2020).

⁷⁹ E. Macpherson & F.C. Ospina, *The pluralism of river rights in Aotearoa, New Zealand and Colombia*, 25 *Journal of Water Law* 283, 284-285 (2015).

indigenous communities and the ensuing cultural rights, or the right to sue and enter into contracts.⁸⁰

Most “core” branches of law, such as constitutional law, criminal law and commercial law have developed in order to define and refine the relationship of humans with other humans. Environmental law, on the other hand has always involved the interaction between humans and their natural environment.⁸¹ Our legal systems exist within the security of sovereignty. The environment, however much we lay claim to its title and to its use, is transboundary. This then begs the question: how do sovereign domestic legal systems interact with its transboundary environment? The act of comparison and studying the interaction between Courts when answering similar legal questions, (in this case, the granting of legal personality to rivers) allows us to understand how legal systems can learn from each other when solving transboundary problems like matters concerning the hydrological system. This learning can take place not because it is forced, as in the case of colonial or neo-colonial projects, but because judges want to, and see value in that act of comparison of others’ experiences with nature

⁸⁰ E. O’Donnell et al., *Stop Burying the Lede: The Essential Role of Indigenous Law(s) in Creating Rights of Nature*, 9 *Transnational Environmental Law* 403, 408-409 (2020).

⁸¹ J.B. Wiener, *Something Borrowed for Something Blue: Legal Transplants and the Evolution of Global Environmental Law*, 27 *Ecology Law Quarterly* 1295, 1365-1366 (2001).

RIGHT TO INFORMATION AS AN 'ENVIRONMENTAL' RIGHT: TRENDS, ISSUES AND CHALLENGES IN INDIA

**Nikita Pattajoshi*

ABSTRACT

Principle 10 of the Rio Declaration by recognizing the concept of 'procedural environmental rights' has changed the way countries look at environmental rights in general. The three procedural rights, namely, right of access to information, right of public participation in environmental decision-making process and right of access to justice identified under the declaration are supposed to contribute towards greater realization of substantive environmental rights. These rights have made their way to municipal law by means of statutes, policies, governmental notifications, executive orders, etc. In the Indian context, the right to information has been adopted into the municipal domain by means of a statute and has contributed immensely to increase access to information. This paper assesses the Indian framework of right to information and its contribution towards greater realization of substantive environmental rights in India. It also highlights the key issues that impede the guarantee of a wholesome right of access to environmental information by an individual in India. While the situation seems assuring, we are yet to go a long way to achieve the desired objectives under the Rio Declaration.

I. INTRODUCTION

The environmental rights framework in India has been crystallized into a Fundamental Right guaranteed under the Constitution. A progressive interpretation of Article 21 of the Indian Constitution by an activist judiciary has led to formation of a substantive 'right to environment'. This right to environment has been manifested through various nomenclatures like right to air free from pollution, right to clean drinking water etc.¹ While this substantive right is an end that one seeks to achieve, the means used

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¹ See *Subhash Kumar v. State of Bihar*, 1991 SCR (1) 5; *Bandhua Mukti Morcha v. Union of India*, AIR 1984 SC 802.

to achieve this end, is often identified as a procedural environmental right (“**PER**”).

Under body of international environmental law, explicit recognition has been given to the PERs under Principle 10 of the United Nations Convention on Environment and Development (“**Rio Declaration**”).² Three procedural rights, namely, right of access to information, right of public participation in environmental decision-making process and right of access to justice have been identified. Principle 10 reads as:

Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.³

The objective of Principle 10 was to empower civil society with civil, political and procedural rights to influence policy making and decision making that are environmentally benign and sustainable. It was believed to usher in an era of ‘environmental democracy’. Numerous attempts have been made at national and regional levels to strengthen the mandate of Principle 10 of the Rio Declaration and as a guide for policy makers and governments. For instance, the Bali Guidelines for the Development of National Legislation on Access to Information, Public Participation and Access to Justice in Environmental Matters (“**Bali Guidelines**”) have been adopted by the United Nations Environmental Programme in 2010 as a guide for national authorities to assess their legislations giving effect to PERs.⁴ Further, various regional instruments have been adopted to

² Report of the United Nations Conference on Environment and Development, August 12, 1992, U.N. General Assembly, Official Record, U.N. Document A/CONF.151/26 (Vol. I), available at https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf, last seen on 25/01/2021.

³ Ibid.

⁴ *Guidelines for the Development of National Legislation on Access to Information, Public Participation and Access to Justice in Environmental Matter*, United Nations Environmental Programme, Sess. XI/5, part A, (26 November, 2010) available at <https://wedocs.unep.org/handle/20.500.11822/11182>, last seen on 04/02/2021.

further the implementation of the 'three cornerstones' of Principle 10.⁵ Principle 10 has therefore set the floor for a growing body of domestic and international jurisprudence.

Though PERs find their source to a single international legal instrument i.e., the Rio Declaration, owing to different legal systems and legal cultures across jurisdictions, the rights have been imbibed into the municipal systems in varying ways and degrees, with a comparatively low degree of recognition in developing countries. This may be attributed to factors like lack of informed citizenry to participate in decision making, presence of weak institutions, lack of easy access to Courts etc.

The objective of this paper is not to highlight the importance of the PERs but to evaluate the efficacy of the rights in the Indian context. The paper seeks to highlight the issues in the effective realization of the PER of right of information with use of an analysis of existing legal framework, specific interpretations by the judiciary and practical problems faced by individuals.

II. ELABORATING PROCEDURAL ENVIRONMENTAL RIGHTS

1. Origin and Significance

The first attempt to codify the PERs was done through Principle 10 of Rio Declaration. Principle 10 is the only empowering instrument at the international level that highlights the role of non-state actors in the road towards sustainability. Though the principle demarcates three prominent rights, it actually includes in its ambit a host of other civil and political rights like the right of assembly, right of dissent, right to sue the Government etc.⁶ The 'soft law' nature of Principle 10 was given the form of specific legal obligations by a regional agreement called UNECE Convention on Access to Information, Public Participation in Decision

⁵ Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters ("Aarhus Convention"), 1998 in the Europe; Lima Vision for a Regional Instrument on Access Rights Relating to Environment, 2013; Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean ("Escazú Agreement") (to be entered into force in 2021).

⁶ S. Stec, *Developing Standards for Procedural Environmental Rights through Practice – The Changing Character of Rio Principle 10*, 4 in *Procedural Environmental Rights: Principle X in Theory and Practice* (J. Jendrośka and M. Bar, 2017).

Making and Access to Justice in Environmental Matters (“**Aarhus Convention**”). The Aarhus Convention has furthered the objective of Principle 10 by providing for a model provision for guaranteeing PERs at the national level.⁷

Irrespective of the level of enforceability, PERs play an important role in empowering citizens, making them feel involved, and giving democratic sanctity to environmental governance in a country.⁸ They serve not only as a guarantee of the right to environment and a mode of increasing participative democracy in environmental protection but also as an effective instrument of monitoring compliance and enforcing environmental law.⁹ Realizing this importance of PERs, the rights have been given due acknowledgment in the legal framework at national, supranational and international level. Some of these legal recognitions might exist in fragmented, but overlapping laws.

2. Right to Information as a PER

The PER of right to information indicates a right to access or obtain information document, reports or meetings, that has impacted or is likely to impact environmental governance in the country.¹⁰ The gamut of information that can come under this right can range from policy decision, circulars, orders of the environmental regulators of the country to information on emissions, reports of expert committees, detailed report on environment impact assessment, etc. The Aarhus Convention has provided for the definition of some key terms such as ‘public authorities’, ‘environmental information’ and ‘public concerned’. For instance, the Aarhus Convention provides for an inclusive definition of ‘environmental information’ as any information regarding state of elements of the environment, administrative measures, policies or legislations or plans that

⁷ *Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters*, UNECE, available at <https://unece.org/DAM/env/pp/documents/cep43e.pdf> last seen on 04/02/2021.

⁸ J.C. Gellers & C. Jeffords, *Procedural Environmental Rights and Environmental Justice: Assessing the Impact of Environmental Constitutionalism*, Human Rights Working Paper Series, Economic Rights Working Paper no. 25, University of Connecticut (2015).

⁹ J. Jendroška, *Introduction*, xvii in *Procedural Environmental Rights: Principle X in Theory and Practice* (J. Jendroška and M. Bar, 2017).

¹⁰ *Supra* 7, Art. 2(3), 5(3) & 5(5).

are likely to affect elements of the environment or conditions affecting human health, life and safety.¹¹

III. RIGHT TO INFORMATION AS A PER IN INDIAN CONTEXT

1. Legal Provisions

1.1 Constitutional Guarantees

The right to information (“RTI”) jurisprudence in India has developed under the gamut of a fundamental right of freedom of speech and expression. The Supreme Court has opined that the right to know about the functioning of Government is a way to express themselves and hence an open Government that discloses information is important for meaningful exercise of the right under Article 19(1)(a)¹² and Article 21.¹³ This right to know has been given varying connotations, depending on the context. From good governance point of view, the right has been recognized as a part of Indian Administrative Law.¹⁴ For example, the right to know the reasons behind a decision taken by a quasi-judicial body or the right to know the reasons for arrest of an individual. To that extent, the substantive right to clean environment under Article 21 of the Constitution and the right to information as a part of Article 19(1)(a) might seem disparate. This was true of the situation pre-2005, when there were no instances of the ‘right to know’ being invoked in relation to environmental issues.

1.2 Statutory Guarantee – Right Based Guarantee

Subsequently, the right to know received statutory recognition under the Right to Information Act (“RTI Act”) in 2005. It is beyond the scope of this paper to get into the reasons behind the statutory recognitions. But it can be stated with conviction that the statutory recognition sharpened the

¹¹ Supra 7, Art. 2.

¹² State of Uttar Pradesh v. Raj Narain, AIR 1975 SC 865; S.P. Gupta v. President of India, AIR 1982 SC 149.

¹³ Reliance Petrochemicals Ltd. v. Proprietors of Indian Express Newspapers Bombay Private Ltd., (1988) 4 SCC 592; Research Foundation for Science Technology and Natural Resources Policy v. Union of India (UOI), (2005) 13 SCC 186.

¹⁴ F. Ahmed & S. Jhaveri, *Reclaiming Indian Administrative Law*, 59, 70 in *Regulation in India: Design, Capacity and Performance* (D. Kapur and M. Khosla, 2019).

weapon of right to know. As the RTI Act in India allows all citizens to seek information under the control of public authorities as a matter of right, in the manner prescribed under the Act,¹⁵ the RTI framework has been used thoroughly by environmental activists and researchers to seek information from various environmental public authorities like the Ministry of Environment, Forests and Climate Change (“**MoEF**”), Pollution Control Boards, Environment and Forest Department of various States, National Green Tribunal (“**NGT**”) etc. some of which have been discussed in Part IV of this paper.

1.3 Statutory Guarantee – Duty-Based Guarantee

Not just the RTI Act, but the right to know has been etched in the various environmental statutes in the country in various forms, with varying semantics. When we talk of the environmental context, it is pertinent to look at the PER not only from the rights perspective, but also from a duty perspective. Implying, it should be understood not just as a right to obtain information, but together with a corresponding duty to disclose information, whenever required. This duty to disclose information can vest in a public authority, like the Pollution Control Boards or an industry or an individual engaging in polluting activities. This duty to disclose information might appear in form of a mandatory requirement under various environmental statutes and rules, framed thereunder.

The two prominent environmental protection laws; the Water (Prevention and Control of Pollution) Act, 1974 (“**Water Act**”) and the Air (Prevention and Control of Pollution) Act, 1981 (“**Air Act**”) work on ‘command and control mechanism’ whereby they prescribe some standards for emission and all industries which are potentially pollution causing are required to obtain consent from the regulators under the Acts i.e., the State Pollution Control Board (“**SPCB**”). In light of the command-and-control mechanism, there are two-fold requirements for disclosure of information; first, the regulated body should disclose all details about its potential pollution causing activities and second, the regulator should disclose details regarding grant/refusal of consent, conditions attached, etc. Consequently,

¹⁵ Ss. 3 & 4, The Right to Information Act, 2005.

the industry has to, in the form of an annual statement, disclose steps taken to comply with the consent and conditions as imposed by the regulator.¹⁶ For instance, pursuant to this requirement, Sterlite Copper Industries has uploaded a document titled “*Compliance of Conditions imposed in the Environmental Clearance issued by MoEF dated 09.08.2007*” on its official website for the general public.¹⁷ Further, it has also uploaded its Environmental Audit Statement for the year 2016-17 wherein it has highlighted the pollution abatement measures taken by them and their impact on the natural resources.¹⁸

Further, the Air Act and Water Act place the SPCB under an obligation to furnish copies of relevant reports on various industries and activities, upon request to private individuals who intend to file a complaint in the Court for alleged violations of the Act.¹⁹ However, the duty to furnish copies of relevant report is discretionary and the SPCB can exercise its discretion to not furnish the information, if it feels that the non-disclosure is in ‘public interest’.²⁰ This unguided discretion bestowed upon the SPCB shadows the scope for effective use of the provision.

In the context of Environmental Clearance (“**EC**”) and Environmental Impact Assessment (“**EIA**”), the duty to disclose has been subsumed in the process itself. Some of these requirements can be found in the EIA Notification, 2006 and Draft Notification, 2020 while some others can be seen to be imposed by various administrative instructions or orders. As per these, the industry that applies for the EC, typically called the project proponent is supposed to make the following information available on a public domain:

- i. Detailed information about the proposed project,
- ii. Terms of Reference framed by the project proponent,

¹⁶ Rule 14, The Environment (Protection) Rules, 1986 (Form V).

¹⁷ *Six Monthly MoEF EC conditions Compliance*, Sterlite Copper (Vedanta), available at https://www.sterlitecopper.com/copper_smelter/six-monthly-moef-ec-conditions-compliance/ last seen on 20/02/2021.

¹⁸ *Environmental Statement Annual Return*, Sterlite Copper (Vedanta), available at https://www.sterlitecopper.com/copper_smelter/environmental-statement-annual-return/ last seen on 20/02/2021.

¹⁹ S. 49(2), The Water (Prevention and Control of Pollution) Act, 1974; S. 43(2), The Air (Prevention and Control of Pollution) Act, 1981.

²⁰ Ibid.

- iii. Draft EIA Report,
- iv. Notification of the date, time and agenda of the public hearing to be conducted.

The idea of public hearings also emanates from the PER of right to consultation and public participation in environmental decision making. Even the right to public participation is intrinsically linked to the right to know/information, to render the participation more meaningful.

2. Rationale/Justification Behind Disclosure

The information disclosure requirement etched in various environmental laws serves a dual purpose. *Firstly*, the rationale behind such a disclosure requirement is to make information about various compliances and defaults/violations publicly accessible. This would give a standing to concerned individuals who wish to drag the defaulting body to the Courts of law, and hence, exercise citizenship rights to participate in governance.²¹ Since two of the procedural bottlenecks in environmental litigation before Indian Courts is standing and evidentiary thresholds, the information disclosed by the regulator empowers individuals and makes for a stronger case in the Indian Court. The examples discussed in Part IV of this paper will bear testimony to this proposition. A two-way flow of information between the regulators and the local community will also ensure that the local communities act as watchdogs and provide instant information on non-compliance by industries in their vicinity.²²

Secondly, one important procedural aspect of a litigation before Courts is the 'limitation period' for filing a suit. The right to information in the form of disclosure is of utter significance in this respect. Usually, the limitation period starts running from the day the information giving rise to the cause of action was notified to the public. For instance, grant of an EC needs to be notified and published in the stipulated manner. Any individual who is

²¹ R. Chakrabarti & K. Sanyal, *Public Policy in India*, 145 (Oxford University Press, 2017).

²² *Filling the Blanks: A Discussion Paper on Strengthening Environmental Governance*, Centre for Science and Environment (2014), available at <http://cdn.cseindia.org/userfiles/Filling%20The%20Blanks%20Report.pdf> last seen on 21/02/2021; G.S. Tiwari, *Conservation of Biodiversity and Techniques of People's Activism*, 43(2) Journal of Indian Law Institute 191, 216 (2001).

aggrieved with the decision of the grant of EC, can file an appeal before the NGT within thirty days.²³ The period of thirty days starts running from the date on which the EC order was notified and published as per stipulations. The Tribunal has clarified that communication about the clearance should mean 'communicating both the factum and content of the clearance, and in a way that it is easily accessible by a common man'.²⁴ To be able to ascertain the limitation period correctly, it is important to note the interpretation of 'communication' as has been held by the Tribunal.²⁵

IV. ENFORCEABILITY OF RIGHT TO INFORMATION AS A PER, SOME SUCCESS STORIES AND ISSUES

1. Enforceability of Right to Information as a PER

Enforceability of PERs is a matter of heavy scholarly debate. As long as the PER is enshrined in form of a rights-based guarantee, like under the RTI Act, it remains enforceable. But when the PER is manifested through a duty-based guarantee as discussed above, the question escalates to whether the duty to disclose information is justiciable. Implying, say, the SPCB which is mandated by an environmental statute to disclose some statistics, fails to do so, can this failure be questioned in the Courts of law and action can be taken against the concerned body. Now, there is no linear judicial response to a question of this sort, and it can be answered only by taking a look at a few examples of disclosure and non-disclosure.

2. Some Examples and Success Stories

While in a theoretical plane, PER of right to information assumes a lot of significance, its importance in a practical scenario can be asserted only when the information obtained through use of the PER is instrumental in environmental decision making and does not just qualify as a discrete piece of information.

²³ S. 16(h), The National Green Tribunal Act, 2010.

²⁴ *Save Mon Region Federation v. Union of India*, Appeal No. 39 of 2012 (NGT, 14/03/2013).

²⁵ S. Ghosh, *Case Note: Access to Information as ruled by Indian Environmental Tribunal: Save Mon Region v. Union of India*, 22(2) *Review of European Community and International Environmental Law* 202 (2013).

2.1 Role of the Judiciary

In the Indian context, information obtained through RTI has not only been relied upon and used by the judiciary but also has impacted the decision-making process of the Courts. For instance, the Delhi High Court (“**Delhi HC**”) placed reliance on some information obtained through a RTI as an evidence for concluding a lack of credibility of the Expert Appraisal Committee (EAC) and subsequently set aside the EC granted to a project proponent based on recommendation of the EAC.²⁶ The RTI application was regarding the constitution of the EAC, and the information disclosed brought to light some discrepancies in it. In certain cases, the Courts have upheld a pro-disclosure stand taken by the Central Information Commission (“**CIC**”), an appellate body under the RTI Act and emphasized upon information being made publicly available.²⁷

2.2 Role of the National Green Tribunal

With the advent of the National Green Tribunal (“**NGT**”), a new level of disclosure has ushered. The NGT constantly keeps nudging the regulatory bodies about the action taken with regard to various environmental issues. The report submitted by the bodies in compliance with the NGT’s order is then made accessible to public on the website of the NGT. A practice of this sort was unnoticed, before the advent of NGT.

For example, the NGT issued a direction on 3rd August 2018 to the Central Pollution Control Board (“**CPCB**”) to upload on its website an action plan and a ‘steps taken report’ for implementation of the Hon’ble Supreme Court’s order in *Paryavaran Suraksha Samiti and Anr. v. Union of India*^{28, 29}. The decision relates to monitoring of Common Effluent Treatment Plants (“**CETPs**”) and framing of environmental compensation regime in case of defaulting CETPs. This implies that the CPCB now has a duty to

²⁶ Utkarsh Mandal v. Union of India, (2009) SCC Online Del 3836.

²⁷ Union of India v. G. Krishnan, (2012) SCC Online Del 2869.

²⁸ WP(C) No. 375 of 2012 (Supreme Court, 22/02/2017).

²⁹ *Step Taken Report by CPCB dated 13.02.2020 in OA No. 593 of 2017*, NGT, available at https://greentribunal.gov.in/sites/default/files/news_updates/REPORT%20BY%20CPCB%20DT.%2013.02.2020%20IN%20OA%20NO.%20593%20of%202017.pdf, last seen on 07/02/2021.

disclose the steps taken by them to ensure proper monitoring of the CETPs.

In another instance, the NGT in its order dated 01.08.2019, directed the CPCB to devise a scale of compensation to be recovered under Noise Pollution (Regulation and Control) Rules, 2000 (“**Noise Rules**”) on the basis of polluters pay principle to enforce Rule 4(2) of the said Rules.³⁰ In response to this, the CPCB devised a scale of compensation to be paid by defaulters for various instances of violation of Noise Rules, and submitted the same to the NGT in October, 2019 and then in June, 2020, which was subsequently made accessible to public on the NGT website.³¹ This was in the context of failure of the statutory authorities in Delhi in controlling noise pollution as per statutory mandates. This way NGT has been instrumental in strengthening the PER of right to information and right to know in India.

2.3 Role of the CIC

Not only the NGT and the judiciary, but even the CIC, an appellate body under the RTI Act has high level of reverence for the PER of right to information. Time and again the CIC has pressed in for enhanced level of disclosure of various environmental decisions on public domain, like the website of the MoEF or PCBs. Through this the CIC has ensured that Public Information Officers (“**PIOs**”) or other public authorities do not evade their responsibility of disclosure under various exemptions provided in the RTI framework.³² It has also ensured that information is freely available to public, and a concerned citizen does not have to file an RTI each time he or she is looking for an environmentally sensitive information. There are instances where the pro-disclosure stand of the CIC has been supported by the judiciary. A glaring example of this is the opinion of the

³⁰ Hardeep Singh v. SDMC, OA 519 of 2016 (NGT 01/08/2019 & 15/11/2019); Akhand Bharat Morcha v. Union of India, OA 496/2018 (NGT, 01/08/2019).

³¹ Report prepared by CPCB on ‘Scale of Compensation to be Recovered for Violation of Noise Pollution Rules, 2000’, National Green Tribunal, available at https://greentribunal.gov.in/sites/default/files/news_updates/CPCB%20Report%20in%20O.A.%20No.%20519%20of%202016%20With%20O.A.%20No.%20496%20of%202018.pdf, last seen on 07/02/2021.

³² S. 8, The Right to Information Act, 2005.

Delhi HC in the *Union of India v. G. Krishnan*³³ (“**G Krishnan Case**”) where the Court while upholding the order of the CIC, opined that a policy even in its draft form should be made available to the public/stakeholders and their recommendations should be considered for finalizing the policy. This case was a writ challenging the CIC’s order in a case where the RTI applicant sought for the report submitted by the Western Ghats Ecology Expert Panel (WGEEP) to the MoEF and the Ministry refused to provide access to the Report on the ground that the Report is still in the draft stage and disclosure at this stage would adversely affect the strategic or economic interest of the State, an exemption that is allowed under Section 8(1)(a) of the RTI Act. Upon appeal, the CIC had allowed disclosure of the Report,³⁴ which was later confirmed by the Delhi HC. This indicates a pro-disclosure stand taken by the Delhi HC and the CIC, with dual emphasis on both the PERs of right to information and right to public participation.

In extension to the CIC’s order in the *G. Krishnan case*³⁵ discussed above, CIC has in another case held that a policy or report even in its draft form should be made available to the public/stakeholders because attempts to conceal policies or reports on grounds that they are still in draft stage creates suspicion about its compliance.³⁶ This order of the CIC was in response to an RTI application seeking disclosure of an Expert Committee’s Report on the Coastal Regulation Zone Notification, 2011, since the notification was amended many times resulting in dilution of its mandate. The applicant wanted to ensure that the dilution of the regulations was in lines with the Committee’s Report. However, the MoEF refused disclosure on grounds that the Report is preliminary and has not been accepted so far, but on appeal the CIC took a stand to the contrary and emphasized that in view of the fragile ecology of the coastal regions, disclosure is necessary for public interest.³⁷

³³ *Union of India v. G. Krishnan*, (2012) SCC Online Del 2869.

³⁴ *G. Krishnan v. Ministry of Environment and Forest*, CIC/SG/A/2012/000374/18316 (CIC, 09.04.2012).

³⁵ *Ibid.*

³⁶ *Kavitha Kuruganti v. Ministry of Environment and Forest*, CIC/SA/A/2015/901798, (CIC, 01.04.2016).

³⁷ *Ibid.*

There are again numerous instances where the information disclosed by means of an RTI is a subject matter for potential litigation or legal challenge before the NGT or Courts of law. For instance, an RTI application by Down to Earth sought information about the status of construction of three highways across Ranthambore and Mukundhara Tiger Reserves under the Bharatmala Highway Project. The application was annexed by a report of the Wildlife Institute of India (WII) to the Government highlighting that the construction of the highways will severely affect and fragment the wildlife habitat in the two reserves. The information divulged by the MoEF revealed that the Central Government has approved the diversion of forest land in the two reserves for construction of highways, in disregard of the concerns raised by the WII.³⁸ Now, this gives a concerned citizen locus standi and a cause of action for suing the MoEF for failure to perform its duty.

3. Issues

While it is true that in the Indian context, Principle 10 has been applied in practice to develop a body of standards for ways in which individuals can carry out their duty to protect the environment, it is not free from challenges. Though the PER of right to know and right to information has statutory recognition in India in multiple statutes, the effectiveness remains a question. Despite garnering enough support from the NGT, the judiciary and the CIC, realization of PER of right to information still has been difficult in many instances. This is owing to layers of hurdles, both procedural and substantive, that fetters the effective realization of the right to information.

Firstly, information is not made available because of administrative glitches, like information not being recorded or maintained properly by the public authority in lines with the legislative requirements, say under Section 25(6) of the Water Act, or the authority evading the application by providing

³⁸ I. Kukreti, *RTI reveals MoEF&CC cleared 3 highway proposals disregarding WII's views*, Down to Earth, available at <https://www.downtoearth.org.in/news/wildlife-biodiversity/rti-reveals-moef-cc-cleared-3-highway-proposals-disregarding-wii-s-views-75250>, last seen on 02/02/2021.

incorrect or misleading information.³⁹ Further, because of the fact that the ‘environmentally sensitive information’ is at times, scientifically complex and technical in nature, the information provided by the public authority is not comprehensible by the public.⁴⁰

Also, since the information is mostly recorded and maintained in English but the ‘affected population’ are mostly people who understand vernacular languages, the information is translated into a regional language and then presented and some information loses meaning in the process of translation. For instance, as reported by Ritwick Dutta, leading environmental lawyer in India, in a certain EIA Report that was disclosed to the public, ‘cyanide’, a toxic chemical was translated to ‘*jhaag wala paani*’ (foamy water) in the Hindi version of the EIA Report.⁴¹ This is coupled with a serious lack of commitment and administrative laches resulting in inordinate delay in replying to the RTI application, disregarding the timeline of 30 days as mentioned in the RTI Act^{42, 43}.

Secondly, because of the general practice of delay in responding to RTI applications or delay in the appeal process which has often been reported by applicants and activists,⁴⁴ the information finally available to the applicant loses its significance. The issue of delay is of greater significance since environmental harm is irreversible in nature and it is important that environmentally sensitive information be available expeditiously so that concerned citizenry can take necessary action before the irreversible harm to the ecology is caused. Hence, timely disclosure becomes a very important factor for environmentally sensitive information.

³⁹ S. Ghosh, *Procedural Environmental Rights in Indian Law*, 55, 70 in *Indian Environmental Law: Key Concepts and Principles* (S. Ghosh, 2019).

⁴⁰ *Ibid.*

⁴¹ *Proceedings of South Asian Conference on Environmental Justice*, Asian Development Bank, available at <https://www.adb.org/sites/default/files/publication/30433/south-asia-conference-environmental-justice.pdf>, last seen on 21.02.2021

⁴² S. 7(1), The Right to Information Act, 2005.

⁴³ S. Ghosh, *Regulatory Domains: The Environment* 203, 224 in *Regulation in India: Design, Capacity and Performance* (D. Kapur & M. Khosla, 2019).

⁴⁴ G. V. Bhatnagar, *Delay in Replies to Appeals and Complaints Killing RTI Movement, Warn Activists*, The Wire (10/07 2020) available at <https://thewire.in/rights/rti-movement-appeal-notice-activists>, last seen on 02/02/2021; *SPIOs Liable for Delay in Responding to RTI Queries*, The Hindu (29/05/2019), available at <https://www.thehindu.com/news/national/kerala/spios-liable-for-delay-in-giving-rti-info/article27288105.ece>, last seen on 02/02/2021.

Thirdly, PIOs tend to abuse the exemptions given to them under the RTI framework.⁴⁵ The RTI Act grants exemption from disclosure on grounds like if disclosure pertains to commercial confidence or prejudicially affects the economic interest of the state.⁴⁶ In the *G. Krishnan case* discussed above, one can see how the exemption from disclosure available under Section 8(1)(a) of the RTI Act was abused by the Ministry to justify non-disclosure of information sought, but the CIC with its order pointed out the abuse and ordered disclosure.⁴⁷ Likewise, Government authorities have classified certain environmental information and documents pertaining to some areas like the submergence zone of the Narmada Dam as 'secret' and made it inaccessible to the public under the Official Secrets Act.⁴⁸

Fourthly, the dispersed structure of environmental regulation, administrative agency and decision making makes gun jumping possible. The PIOs of the MoEF, the SPCBs and the CPCB keep evading their responsibility to disclose in name of one another and on grounds that they do not possess the relevant information sought in the application. For instance, in the year 2016, a bunch of RTIs were filed by 3 environmental researchers in 22 Indian states seeking information about the constitution, composition, tenure, rules of procedure etc. of Appellate Authorities under the Water and Air Act.⁴⁹ The RTIs were filed with the State Department of Environment, but in 17 states the application was transferred by the State Government to the concerned SPCB; and on the ground that the information was not available with them, some of these applications were sent back to the State Departments by the SPCB.⁵⁰ This example highlights the issue of gun jumping and the lack of clarity with regard to who should maintain and record the relevant information. The administrative

⁴⁵ I.P. Massey, *Administrative Law* 574- 575 (9th ed., 2016).

⁴⁶ S. 8(1), The Right to Information Act, 2005.

⁴⁷ Supra 34.

⁴⁸ S. Bhat, *Right to Environmental Information* 322, 331 in *Right to Information and Good Governance* (S. Bhat, 2016).

⁴⁹ S. Lele, N. Heble and S. Ghosh, *Appellate Authorities under Pollution Control Laws in India: Powers, Problems and Potential*, 14(1) *Law, Environment and Development Journal* 47, 52 (2018).

⁵⁰ *Ibid.*

discretion granted to the authorities also defies the entire purpose of the right to information mechanism.⁵¹

Lastly, in some cases, the compliance with various disclosure requirements, though present, is very unsystematic, outdated rendering the information disclosure an empty formality. For instance, a look at the website of the Uttar Pradesh Pollution Control Board indicates that compliance with the MoEF order mandating publication of status of grant of the No Objection Certificate to various industries, has been achieved, but is incomplete. One finds details of the status and the industries only till October, 2017 and no information thereafter.⁵² A survey by Price Waterhouse Coopers in the year 2012 on the issues in implementation of the RTI Act in India reveals that more than 75% of the citizens are dissatisfied with the level of information provided to them, on ground of the information being ‘incomplete’ or ‘irrelevant’.⁵³ While this study reflects the grim situation of RTI in general, it also sheds light on the quality of disclosure of environmental information.

V. CONCLUSION

One of the biggest roadblocks for realization of PERs in any country is lack of political will. In even ‘evolved’ jurisdictions like the USA, lack of political will has stopped citizens from their right to participate in environmental protection and seek justice.⁵⁴ A status check on the implementation of Principle 10 of the Rio Declaration, which embodies the PERs, reveals that there still remains a gap between the aspirations behind the principle and its effective realization by State actors.⁵⁵ Further, owing to different legal systems and legal cultures across jurisdictions, the

⁵¹ S. Bhat, *Right to Environmental Information* 322, 335 in *Right to Information and Good Governance* (S. Bhat, 2016).

⁵² *Status of No Objection Certificate Applications at Lucknow (HO)*, Uttar Pradesh Pollution Control Board, available at <http://uppcb.com/noc.htm>, last seen on 15/02/2021.

⁵³ *Key Issues and Constraints in Implementing the RTI Act*, 44, available at https://rti.gov.in/rticorner/studybypwc/key_issues.pdf, last seen on 20/02/2021.

⁵⁴ *Center for Biological Diversity v. Chuck Hagel*, No. C-03-4350 EMC (2015, District Court of North California).

⁵⁵ *Review of Implementation of Rio Principles: Detailed Review of Implementation of the Rio Principles*, Study by Stakeholder Forum for Sustainable Future, 68, available at <https://sustainabledevelopment.un.org/content/documents/1127rioprinciples.pdf>, last seen on 15/02/2021.

rights have been imbibed into the municipal systems in varying ways and degrees, with a comparatively low degree of recognition in developing countries. The constitutional protection given to environmental rights is often untapped to advance procedural environmental rights worldwide.⁵⁶

This has been particularly true with respect to India. It was believed that with adoption of Principle 10 of the Rio Declaration into domestic legal system, an era of 'environmental democracy' will usher in. While India has witnessed its share of environmental democracy, it might not be truly attributed to the PERs as guaranteed under Principle 10.

As India grapples with escalating environmental crises, it is imperative to recognize that environmental justice cannot be delivered by only guaranteeing a set of rights but by empowering citizens with information and a forum to participate, discuss and seek redressal of their grievances. Thus, India needs to strengthen the institutional protection to right to environmental information.

The Indian Government's obligations under Principle 10 of the Rio Declaration need to be made justiciable. The Indian Government should be made answerable for not giving full and effective implementation to Principle 10. A similar practice can be seen under the Aarhus Convention framework where a member State which is not fully complying with the Convention in terms of guaranteeing PERs can be dragged to the Aarhus Compliance Committee and made answerable. In the year 2010, a UK based NGO, Client Earth dragged the UK Government to the Aarhus Compliance Committee for its failure to guarantee right of access to justice by imposing prohibitive costs on litigants.⁵⁷ The Compliance Committee while upholding the rights of the litigants, ruled that the imposition of prohibitive costs is actually impeding the realization of PERs under this Convention and ultimately under Principle 10.⁵⁸ This was made possible since the UK is one of the 47 parties to the Aarhus Convention, which is

⁵⁶ J.R. May, *Constitutional Directions in Procedural Environmental Rights*, 28 *Journal of Environmental Law and Litigation* 27, 28 (2013).

⁵⁷ *ClientEarth wins landmark case against the UK for failing citizens on access to justice*, Client Earth, available at <http://www.clientearth.org/clientearth-wins-landmark-case-against-the-uk-for-failing-citizens-on-access-to-justice>, last seen on 15/02/2021.

⁵⁸ *Ibid.*

primarily a regional Agreement of the Economic Commission of Europe. India, thus, needs to be a part of a similar regional institution and co-operation, and enter into partnership with other States who can mutually impose upon themselves a binding obligation to implement and guarantee PERs. The SAARC countries for instance, need to form a co-operation in lines with regional agreements like the Escazú Agreement or the Lima Vision.⁵⁹

Further, the general trend in Indian administrative reforms is to create newer institutions or statutory regulators instead of reforming the existing administrative structures and mechanisms.⁶⁰ However, when it comes to the enforcement of PERs in India, we need to deviate from the trend and emphasize on reforming the existing environmental administrative infrastructure to smoothen the right to environmental information framework in India. There thus needs to be streamlining of the information recording and maintenance mechanism by regulatory agencies like PCBs etc., and this mechanism needs to be monitored consistently by an independent regulator. For instance, in each state the SPCB should record and maintain all relevant 'environmental information' and the process should be monitored by the NGT or all relevant 'environmental information' should be made available to the public on the website of the NGT. This is precisely envisaged in Guideline 4 of the Bali Guidelines which states that States should ensure that their competent public authorities regularly collect and update environmental information.⁶¹

Absence of a strong punitive and deterrence mechanism makes non-compliance a practice, rather than an exception. So, we need to either incentivize the process of information disclosure or severely disincentivize the process of non-disclosure in economic terms. Also, anyone who fails to perform his statutory duty of disclosure under various environmental laws needs to be imposed a criminal liability for his inaction.

⁵⁹ Supra 5.

⁶⁰ K. Krishnan & A. Burman, *Statutory Regulatory Authorities: Evolution and Impact*, 339, 355 in *Regulation in India: Design, Capacity and Performance* (D. Kapur & M. Khosla, 2019).

⁶¹ Supra 4.

In addition to this, the Government should actively engage in capacity building of public authorities as well as private citizens to facilitate access to environmental information, as envisaged in Guideline 7 of Bali Guidelines.⁶² This is because one prominent reason for the weak level of enforcement of PERs in general is that those who are affected by various acts of pollution are ignorant of any mechanism and its mandate to get their PERs enforced. Thus, a capacity building exercise will equip the 'affected population' with skills and knowledge to seek environmental information from the Government and act on them. The Client Earth case should be used as a model for the civil society in countries including India.

It is noteworthy that India was the first country in the world to mandate environmental statement audit by incorporating it into its legislative framework in 1992⁶³.⁶⁴ In a discussion paper by the MoEF released in 2009, the Ministry urged for higher degree of self-regulation, self-assessment and self-disclosure by industries need to be incorporated into the Environmental Protection Act.⁶⁵ While these developments in India are somewhat assuring, a step needs to be taken towards a more proactive and voluntary information disclosure policy since the greater environmental information is already put in public domain, the lesser is the burden for the Government to entertain specific applications and requests. This way we can achieve decentralisation of environmental governance which entails not just sharing of powers with lower levels of Government but also sharing of information and decisions to the public in general.

⁶² Ibid.

⁶³ Supra 16.

⁶⁴ Supra 22.

⁶⁵ Ministry of Environment & Forest, Government of India, *Towards Effective Environmental Governance: Proposal for a National Environment Protection Authority*, available at <https://hindi.indiawaterportal.org/sites/default/files/library/NEPADiscussionPaper.pdf>, last seen on 21/02/2021.

FAILURE OF ENVIRONMENTAL REGULATORY BODIES AND EIA FRAMEWORK: ANALYSIS OF EXISTING CHALLENGES

**Maneka Nair Sastharam*

ABSTRACT

The environment legal regime in India has many facets, however, none of them have been able to solve environmental concerns. The various regulatory authorities established by different statutes have proven to be inadequate in addressing the very purpose for which they were created. We have established environmental impact assessment framework which is diluted per amendment. The need to address the issues faced by these systems in order to make them effective is of paramount urgency. Both these systems are connected in many ways, some more latent than patent. The state needs to address the inherent, institutional and acquired problems that render these systems impotent. The creation of various regulatory bodies is a means to an end. 'Action' or 'inaction' of various regulatory authorities has made the end quite a distant dream.

I. INTRODUCTION

The Bhopal gas tragedy is considered the worst industrial disaster that occurred in the world. It was a man-made disaster. As much as we hold the Union Carbide Corporation responsible for the disaster, we 'will have' to hold both the Central and state governments of India responsible for this tragedy. Their responsibility was created at the point where they chose to construct a chemical fertilizer plant in a heavily populated area. In 1982, there was a request made to the State of Madhya Pradesh to shift this fertiliser plant to a more remote area by the city administrator. However, this did not happen and Union Carbide Corporation was also not keen on moving from their prime location. How the government becomes culpable in this tragedy is in the fact that they trusted Union Carbide's words instead of ensuring compliance by monitoring the various safety standards that

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they had to follow. The plant operator, T. P. Chouhan, says that the Bhopal gas tragedy “*is a case study on how the state can let you down.*”¹ The Government of India and the State Government of Madhya Pradesh also contributed to the Bhopal gas tragedy.² However, they assumed the role of the plaintiff representing the victims after promulgating the Bhopal Gas Leak Disaster Processing of Claims Act of 1985.

The pertinent question at this point to whether we have learnt from our mistakes and prevented such similar incidents? The Vizag gas leak incident is the perfect answer to this question. The company was in operation since the 1960s, as such, they did not need Environmental Clearance as per the 2006 Environmental Impact Assessment (“**EIA**”) Notification unless they plan to expand production, change raw materials or modernize its units. However, they had been increasing production and changing raw materials since 2004 without Environmental Clearance. They were warned by the Andhra Pradesh Pollution Control Board (“**PCB**”) regarding the lack of Environmental Clearance in 2017. It took more than 10 years for the PCB to identify this violation and issue warning for non-compliance with the 2006 EIA notification. They applied to the Ministry of Environment Forest and Climate Change (“**MoEF&CC**”) for Environmental Clearance but withdrew the same in 2018. They submitted a proposal to the Andhra Pradesh PCB claiming that they were ‘importing plastic granules to prepare extended plastic’³ that does not require Environmental Clearance. The Board granted a consent to operate as well.

The environmental jurisprudence in India has been enriched by proactive decisions from the Supreme Court and various High Courts of the country. The Supreme Court expanded the scope of the Right to Life and personal liberty under Article 21⁴ of the Constitution to include the right to enjoy a

¹ V. Krishnan, *Bhopal Gas Tragedy* | ‘*This place was destined to be in ruins*’, Mint (02/12/2014), available at <https://www.livemint.com/Politics/LMc6Ycm07hDsG7UJav2wjN/Bhopal-Gas-Tragedy--This-place-was-destined-to-be-in-ruins.html>, last seen on 01/01/2021.

² I. Eckerman & T. Borsen, *Corporate and governmental responsibilities for preventing chemical disasters: lessons from Bhopal*, 24 HYLE-International Journal for philosophy of chemistry 29, 40(2018).

³ S. Ramanathan, D. Singh & N. K. Yadav, *The Complete Story of the Vizag Gas Leak*, Down to Earth, available at https://www.downtoearth.org.in/dte-infographics/vizag_gas_leak/index.html, last seen on 02/01/2021.

⁴ Art. 21, the Constitution of India.

healthy environment.⁵ The need to the balance right to healthy environment and sustainable development was noted in *A. P. Pollution Control Board (II) v. M. V. Nayudu & Ors.*⁶ It elaborated the polluter pays principle and the precautionary principle calling them essential features of sustainable development⁷. Compliance with sustainable development principles were declared to be “*sine qua non for the maintenance of the symbiotic balance between rights of environment and development*”⁸. Intergenerational Equity was also held to be part of life under Article 21.⁹

The legislative framework existing for the protection of the environment is also comprehensive. The point of discussion here is as to why the regulatory framework fails despite having the necessary support from both judiciary and legislature in terms of proactive environmental adjudication and delegation of power respectively.

Whenever there is an event with adverse consequences to the environment and the people living in and around the affected area, the discussion starts with insufficient and inefficient laws but ends with a conclusion that it is in the implementation that we suffer and not in the quality of laws. In matters of environmental concerns as well, we face the issue of poor implementation mechanism coupled with a reluctance to learn from our many, many mistakes. When issues that need to be addressed at an executive level get dragged to the judiciary, it is a waste of resource and time. When the leadership suffers in quality and qualification, environmental governance suffers. When scammers and plagiarizers are excused, the environmental cost is very high. The anthropocentric approach that leads our development strategy needs to change. Despite the call for a ‘delicate balance’ between ecological impact and the necessity for development by the judiciary, the executive is unable to find a balance because the laws that they implement are not reflective of the principles developed and expanded by the judiciary.

⁵ *Bandhua Mukti Morcha v. Union of India*, (1984) 2 SCR 67.

⁶ *A. P. Pollution Control Board (II) v. M. V. Nayudu & Ors.*, (2001) 2 SCC 662.

⁷ *MC Mehta v. Kamal Nath*, (1997) 1 SCC 388; See *Tirupur Dyeing Factory Owners Association v. Noyyal River Ayacutdars Protection Association & Ors.*, AIR 2010 SC 3645.

⁸ *N. D. Jayal & Ors. v. Union of India & Ors.*, (2004) 9 SCC 362.

⁹ *Court on its own motion v. Union of India & Ors.*, (2012) 12 SCC 497.

What is being attempted here is to understand the various issues plaguing statutory bodies in charge of implementing environmental laws and the EIA regulatory mechanism. Identification of these issues will enable us to understand where the fault lies. The next step is to assess the Draft EIA Notification, 2020 (“**DEIAN 2020**”) and understand whether this will serve to strengthen the existing regulatory systems. If the new draft regulation weakens the system, then we need to find a solution to this problem. No project survives on the EIA mechanism alone. It needs constant support and monitoring from other regulatory bodies in order to ensure that they are legally compliant and the environmental impact is minimal.

II. THE INSTITUTIONAL CHALLENGES

There are quite a few regulatory bodies in India with a focus on environmental protection and reduction of pollution. The Water (Prevention and Control of Pollution) Act of 1974 (“**Water Act**”), the Air (Prevention and Control of Pollution) Act of 1981 (“**Air Act**”), the Forest (Conservation) Act, 1980 and the Wild Life (Protection) Act, 1972 provide the regulatory framework for man’s interaction with nature. All these statutes created regulatory bodies at the Centre and the States are vested with vast powers to discharge their duty to protect and prevent damage to the environment. In this paper, the focus is on the Central Pollution Control Board (“**CPCB**”) and the State Pollution Control Boards (“**SPCBs**”). This system has been in place since the inception of the Water Act and derives its powers from both the Water Act and Air Act. There is much that can be achieved in terms of controlling pollution if the various SPCBs do honest and sincere work.¹⁰

¹⁰ P Mukherjee, *EIA Scams: Decaying the EIA Legal Regime in India*, 6 Journal of Environmental Research and Development 507, 510 (2012).

1. The lack of a recruitment policy leading to unqualified persons holding significant positions at PCBs affecting good governance

Madan Lokur J., rightly pointed out that not many SPCBs possess the attributes of a body capable of good governance.¹¹ For any authority/body to be capable of good governance they need to be led by qualified personnel who are capable of performing the duties vested in them. The qualification of the Chairman of the SPCB of Jharkhand was a matriculation and even more disappointing is the fact that he had no knowledge of pollution or the control of it. He had no ‘practical or special knowledge’ in this area. The High Court of Jharkhand considered this revelation before it to be one of “total horror, dismay, surprise and amazement.”¹² The Court went on to hold the appointment of the Chairman to be illegal and invalid.

Despite multiple communications from the MoEF&CC, to the states regarding the need for professional appointments to the SPCBs, the states remained indifferent to it. Due to this and varying other circumstances, the National Green Tribunal (“**NGT**”) assessed the situation of all SPCBs and concluded that the members of the SPCBs in 10 States and 1 Union Territory lacked the necessary qualifications to hold their positions.¹³ The NGT *inter alia* ordered all the state governments to notify rules on the qualification and experience (recruitment rules) needed for the Chairman/Member Secretary of the SPCBs under the Water Act and Air Act.¹⁴ This decision was subsequently challenged before the Supreme Court alleging that the NGT does not possess sufficient jurisdiction to adjudicate upon such matters in *Techi Tagi Tara v. Rajendra Singh Bhandari and Ors.*¹⁵ The Supreme Court set aside the decision of the NGT but instructed the executive of all the states to frame recruitment guidelines within six months.¹⁶ The rules are yet to be declared by the states. A contempt

¹¹ *Techi Tagi Tara v. Rajendra Singh Bhandari and Ors.*, (2018) 11 SCC 734.

¹² *Binoy Kumar Sinha v. State of Jharkhand*, 2002 (50) BLJR 2223.

¹³ *Rajendra Singh Bhandari v. State of Uttarakhand & Ors.*, Application No. 318 of 2018 (National Green Tribunal, 24/08/2016).

¹⁴ *Ibid.*

¹⁵ *Supra* 11.

¹⁶ *Ibid.*

petition has been filed with respect to this non-compliance of the decision in *Techi Tagi Tara v. Rajendra Singh Bhandari and Ors.*¹⁷ before the Supreme Court.¹⁸

It is not possible for good environmental governance to materialise in the absence of qualified personnel to manage and monitor projects as per the mandate of the law. To have such leadership it is necessary to have clarity on the qualifications and experience required in an individual who is to be vested with such a significant duty as environmental protection.

2. The inaction of the PCBs

In more than one instance the callousness and lethargy of both CPCB and SPCBs have been brought to light by the judiciary. The Supreme Court has, on multiple occasions lamented their fruitless labor towards the prevention and control of pollution in Ganga for over 30 years. The major cause for the same is the inaction on the part of the statutory bodies, both the CPCB and SPCBs in implementing the various orders of the Supreme Court and the absence of effectively monitoring this by these bodies.¹⁹ The NGT also stated that statutory authorities that fail to monitor pollution and take action against violators of anti-pollution laws, have to be noted.²⁰ However, this has not happened yet.

The inaction of the Bihar State PCB was made subject to the inquiry of the Chief Secretary of the state by the High Court of Patna in the matter of *New Era High School v. State of Bihar and Ors.*²¹ The Chief Secretary was also instructed to propose an action plan for further proper functioning and discharge of duties by the Board. In this case, a printing press was opened near the New Era High School and a complaint was submitted to the board objecting to this. Their concern was noise pollution. No steps were taken

¹⁷ Supra 11.

¹⁸ N. Thapliyal, *Supreme Court Issues Notice in a Contempt Petition seeking Appropriate Guidelines in appointing Executives to SPCBs*, Live Law (18/12/2020), available at <https://www.livelaw.in/top-stories/supreme-court-contempt-of-courts-act-recruitment-state-pollution-control-board-167408?infinitemscroll=1>, last seen on 19/12/2020.

¹⁹ M. C. Mehta v. Union of India, (2015) 12 SCC 764.

²⁰ M. C. Mehta v. Union of India, Application No. 200 of 2014, (National Green Tribunal, 13/07/2017).

²¹ *New Era High School v. State of Bihar & Ors.*, AIR 2013 Pat 70.

by the Board in remedying this complaint as a result of which, they were forced to file a writ petition.

There is a situation in India where the statutory bodies await instructions from the Court to discharge their functions. Sections 19-27 of the Water Act and Sections 19-31A and 37- 42 of the Air Act provide the PCBs with enormous power and autonomy. Their inability to implement these powers vested in them is the biggest failure of all. It is a matter of concern when the officials of PCBs forget that they can take action against people who violate environmental laws without the direction from an external agency. The Courts have been brought to the point where they had to instruct officials to take appropriate action when they see a breach without awaiting instructions from the Court.²² The Assistant Environment Engineer of the Gujarat PCB filed a note regarding dumping of waste near Ramol village and this prompted the High Court of Gujarat to take up this case *suo motu* and hold that “no provision of this law or any other pollution law envisages any previous clearance from the High Court for taking action against defaulters.”²³ Again, the lethargy of SPCB was a matter of concern in *State of Madhya Pradesh v. Kedia Leather and Liquor*²⁴ and the court wondered at the SPCB’s need for a direction from the Court to discharge their functions.

These are just some of the issues that need immediate resolution, before the State can hope to build more systems for effective management of environmental concerns. The creation of new systems will not do much good when the existing framework fails to perform their functions. Adding a new regulatory framework on an existing inefficient one is a plan that is destined to fail. It becomes a vicious circle which makes it nearly impossible to achieve the objects for which the new system is being made.

III. EIA CHALLENGES

Just as the regulatory framework has issues, the EIA Systems have many flaws that need immediate remedying given the unique circumstances prevailing in India. In India, we follow a discretionary model of EIA. The

²² *Suo Motu v. Vatva Industries Association & Ors.*, AIR 2000 Guj. 33.

²³ *Ibid.*

²⁴ *State of Madhya Pradesh v. Kedia Leather & Liquor*, (2001) 9 SCC 605.

Bhopal gas tragedy could be considered as the consequence of the discretionary model.²⁵ What the EIA notification does is identify what kind of projects require an EIA, and prescribe the procedure for obtaining Environmental Clearance for them.

1. EIA reports are made at the instance of the Project Proponent.

In India, it is the project proponent that conducts the EIA study.²⁶ This leads to issues like poor quality EIA reports, where actual facts are hidden (this was the case in the Goa airport matter) and the plagiarized EIA reports. The existing EIA framework in India is also plagued by the lack of efficient monitoring and verification process.²⁷ These issues together can make the EIA framework weak and inefficient.

2. Plagiarised EIA Reports

A hydroelectric project of the Murudeshwar Power Corporation Ltd. was to come up across the Kali River in Karnataka called the Dandeli mini hydel project. A rapid environmental impact assessment report was submitted by Ernst and Young. This report was found to be plagiarised by Environment Support Group and Parisara Samrakshana Kendra.²⁸ The report was plagiarised from the Tatihalla Dam project in the same district.²⁹ Tata Energy Research Institute drafted another EIA within a year. There were many issues with this report as well. However, the Karnataka government rejected this project in 2003.³⁰

Shibani Ghosh cites the example of a pharmaceutical plant using the EIA report of a Sponge iron plant in her paper 'Demystifying Environmental

²⁵ See P. Leela Krishnan, *Environmental law in India*, 259 (4th ed., 2016).

²⁶ Regulation 7(i) II, *Unified EIA Notification 2006 with amendments till September 2015*, MoEF&CC, S.O. 1533 (20/08/2015).

²⁷ S. Ghosh, *Demystifying environmental clearance in India*, 6 NUJS Law Review 433, 469 (2013), available at <http://nujlawreview.org/wp-content/uploads/2016/12/03shibanighosh.pdf>, last seen on 03/01/2021.

²⁸ M. Shankar, *Unsound power project thrown out*, Down To Earth (31/10/2003), available at <https://www.downtoearth.org.in/news/unsound-power-project-plan-thrown-out-13619>, last seen on 26/12/2020.

²⁹ P. Leelakrishnan, *Environmental Law Case Book*, 450 (2nd ed., 2006).

³⁰ Ibid.

Clearance in India'.³¹ The Nauroji Nagar Project in Delhi is a great example of a plagiarised EIA report gone wrong in more ways than one. It claimed to have conducted a study on water quality a year before the project was commissioned. The report was also plagiarised from copyrighted materials including a book and the EIA report of the Tamil Nadu Mineral Ltd. without even changing names of the water quality monitoring locations.³² The High Court of Madras scraped an EIA report in *P. V. Krishnamoorthy v. Government of India*³³. The consultant M/s Feedback Infra Pvt. Ltd., that prepared the EIA report for the Salem- Chennai Eight Lane Highway Green Field Project as a part of the Bharatmala Pariyojana, made references to the Xi'an Province in China and HIV prevention steps taken. The Court did not consider this plagiarism but as "non-application of mind".³⁴

3. Incomplete EIA

Quoting the Apex Court in the *Narmada case*³⁵ wherein it was observed that rehabilitation is much more than food, clothes and shelter, S. Rajendra Babu J., in *N. D. Jayal and Ors. v. Union of India and Ors.*,³⁶ held that "prior rehabilitation will create a sense of confidence among the oustees and they will be in a better position to start their life by acclimatising themselves with the new environment." For those who are displaced by developmental projects they are leaving behind their families, relations, livelihood, community etc. Rehabilitation schemes are vital to ensure that the displaced get a fair chance at restarting their lives. Yet we have had instances where rehabilitation policies were not in place when Environmental Clearances were given.

³¹ Supra 27.

³² M Menon & V Viswanathan, *How not to do an environmental assessment*, The Hindu (30/08/2018), available at <https://www.thehindu.com/opinion/op-ed/how-not-to-do-an-environmental-assessment/article24813642.ece> last seen on 26/12/2020, last seen on 27/12/2020; See R. Banka, *EIA report on south Delhi govt colony revamp plagiarised, high court told*, The Hindustan Times (17/08/2018), available at <https://www.hindustantimes.com/delhi-news/eia-report-on-south-delhi-govt-colony-revamp-plagiarised-high-court-told/story-GFR5EsM4pNXgN1aRZ88I3H.html>, last seen on 27/12/2020.

³³ *P. V. Krishnamoorthy v. Government of India*, 2019 (3) CTC 113.

³⁴ *Ibid.*

³⁵ *Narmada Bachao Andolan v. Union of India and Ors.*, (2000) 10 SCC 664.

³⁶ *N. D. Jayal & Ors. v. Union of India & Ors.*, (2004) 9 SCC 362.

In *M.P. Patil v. Union of India and Ors.*,³⁷ the Environmental Appraisal Committee (“EAC”), after noting general nature of rehabilitation and resettlement policy recommended Environmental Clearance. The NTPC did not include the rehabilitation and resettlement policy in the Draft Environmental Impact Assessment Report, violating the Terms of Reference. The Environmental Clearance was granted under the condition that a detailed rehabilitation and resettlement policy will be developed within 4 months. But the court observed that the NTPC’s rehabilitation and resettlement policy was limited to the paper. This was evidenced by the failure to identify and prepare a list of people affected by the project. NTPC also managed to hide the facts on the nature of the land. They claimed the land to be mostly rocky and barren, and partly agricultural when in fact the land in the project area was predominantly agricultural.

The EIA for the Aranmula Airport in Kerala did not explain how the multiple borewells that they would dig to meet their water requirements would impact the water table. The airport needed 500 acres of land (the land to be acquired were wetlands and paddy fields) and the EIA was silent about the materials and the quantity of the materials that would be needed to fill the land.³⁸ Moreover, the project proponent had altered the land without being granted the Environmental Clearance which was ignored by the MoEF&CC when the Environmental Clearance was granted.³⁹ The socio-economic impact of the land acquisition for the airport and the roads for accessing the airport finds no mention in the EIA. Aranmula is a heritage village. This village is famous for the Aranmula Kannadi (Aranmula metal mirror) made by local artisans. This metal mirror was certified Geographical Indication in the year 2005.⁴⁰ The artisans who make these mirrors use the mud and clay from the paddy fields of Aranmula as

³⁷ *M.P. Patil v. Union of India and Ors.*, Appeal No. 12 of 2012, (National Green Tribunal, 13/03/2014).

³⁸ *Shreeranganathan K.P. v. Union of India*, 2014 ALL (I) NGT Reporter (1) (SZ) 1.

³⁹ *Ibid.*

⁴⁰ *Certificate Issued by the Geographical Indication Registry*, Intellectual Property India, available at <http://ipindiaservices.gov.in/GIRPublic/Application/ViewDocument>, last seen on 20/12/2020.

the main ingredient. These issues were not considered when the Environmental Clearance was given.⁴¹

4. EIA report excluding details of public hearing

Public hearing ensures participatory justice by giving voice to the voiceless.⁴² The public hearing was adversely affected by not addressing key issues like the location of Ambient Air Quality monitoring stations and the absence of a rehabilitation and resettlement policy.⁴³

The publication of public hearing with respect to the *Aranmula Airport case*⁴⁴ suffered from serious violations. The publication did not have all the details that were expected to be published. There were access issues to the public hearing. The NGT also observed that the 'tenor' of the protests was not reflected in the EIA.

In the *Hanuman Laxman Aroskar and Ors. v. Union of India and Ors.*⁴⁵ the project proponent concealed objections and environmental concerns raised during the public hearing and reduced it to a matter of employment concerns before the EAC. Among the concerns raised during the public consultation were the natural water recharge mechanism of the Mopa Plateau, Western Ghats protection, impact on local plantations, the lack of specificity as to the number of trees that would be cut down, loss of sacred groves, the effect on the 40 springs and the flora and fauna of these regions etc., which did not find mention in the report submitted to the EAC by the project proponent. What is concerning is that Environmental Clearance was given nevertheless. This begs the question as to the efficiency, integrity, quality and expertise of the EAC to take a decision in these matters.

⁴¹ Supra 38.

⁴² *Samarth Trust v. Union of India & Ors.*, Writ Petition (Civil) No. 9317 of 2009 (High Court of Delhi, 28/05/2010)

⁴³ Supra 37.

⁴⁴ Supra 38.

⁴⁵ *Hanuman Laxman Aroskar & Ors. v. Union of India & Ors.*, (2019)15 SCC 401.

5. Non-availability of Environmental Clearance in public domain

The non-availability of Environmental Clearance in the public domain, once the same is granted, was an issue in the *Save Mon Region Federation and Lobsang Choedar v. Union of India and Ors.*⁴⁶. The project proponent did not publish the Environmental Clearance as required under Regulation 10(i)(a) of the 2006 EIA notification. Regulation 10(i)(a) requires the project proponent to publish the Environmental Clearance in 2 newspapers of the District or State where the project is located stating the conditions and safeguards in the same. In addition to this, the project proponent claimed that they had submitted the Environmental Clearance order to the heads of local bodies as per 10(i)(d) of the regulation, however, they failed to specify as to which local authority they submitted the same and also failed to mention the date of such submission.⁴⁷ Moreover, the MoEF&CC itself failed to upload the order at its website.

6. Non-application of mind by EAC

There is no application of mind by the EAC when the time for appraisal comes. The Supreme Court in *Hanuman Laxman Aroskar and Ors. v. Union of India and Ors.*⁴⁸ had called out the EAC for not analysing the EIA report, for not explaining the peculiar circumstances that lead to its recommendations, for its failure in addressing the environmental impact the project can cause and for considering extraneous circumstances. The Supreme Court went on to state the significance of the reasoning that the EAC has to provide thus: “The reasons which are furnished by the EAC constitute a live link between its processes and the outcome of its adjudicatory function. In the absence of cogent reasons, the process by its very nature, together with the outcome stands vitiated.”

⁴⁶ Lobsang Choedar v. Union of India & Ors., 2013 (1) All India NGT Reporter 1.

⁴⁷ Ibid.

⁴⁸ Supra 45.

7. The soft approach of the Judiciary to Environmental Clearance violations.

Ex post facto Environmental Clearances were held to be “*completely alien to the environmental jurisprudence*”.⁴⁹ But the latest decision from the apex court takes a different approach. The court decided to take a route that best fits the doctrine of proportionality by reversing the revocation of the Environmental Clearance and closure of the units ordered by the NGT and imposed an additional fine of Rs. 10 Crores, on the violators who were operating without Environmental Clearance.⁵⁰ They continued this approach in the second Goa Airport case. In this case the suspension of the Environmental Clearance was removed after directing the National Environmental Engineering Research Institute to monitor compliance of the directions of the Court.⁵¹

IV. THE DRAFT ENVIRONMENTAL IMPACT ASSESSMENT NOTIFICATION 2020: ISSUES

The first stage of EIA under the DEIAN 2020 is scoping. In this stage, project proponent collects essential primary and secondary data before applying for the Terms of Reference (the detailed scope prescribed by the regulatory authority for the preparation of the EIA report in the project⁵²). The next stage is the preparation of the draft EIA report as per the terms of reference and providing it to the concerned authorities for the conduct of public consultation. After the public consultation, the project proponent makes necessary changes to address the concerns raised by the public and submit the final EIA report for appraisal. It is at this juncture that the Appraisal Committee shall grant Prior-Environmental Clearance or reject the proposal.

⁴⁹ Common Cause & Ors. v. Union of India & Ors., (2007) 9 SCC 499.

⁵⁰ Alembic Pharmaceuticals Ltd. v. Rohit Prajapati & Ors., (2020) 4 MLJ 277.

⁵¹ Hanuman Laxman Aroskar v. Union of India & Ors, (2020) 12 SCC 1.

⁵² Draft Environmental Impact Assessment Notification-2020, MoEF&CC, (12/03/2020).

1. Self-regulation and Self- reporting in the case of violations.

The DEIAN 2020 hopes for self-regulation and monitoring in matters of reported violations, if any. That is not to say that none can bring violations to the attention of the authority. Regulation 22 of the DEIAN 2020 clearly states that any Government Authority, the Appraisal Committee and regulatory bodies can make a complaint against the project proponent. The Appraisal committee can make a complaint if any violation comes to light at the time of appraisal and the regulatory bodies can do so if any violation comes at the time of the application process. It is only in these instances that cognizance of any violations will be taken. For any subsequent violations the path is self-regulation and self- reporting.

2. Nominal penalty for violations.

There is a pecuniary liability attached to the violators. Unfortunately, the amount is nominal. Any form of punishment should serve the primary purpose of deterrence. The real object of the EIA understands the possible consequences for the environment and socio-economic fabric. It is a matter of common knowledge that recovery and rejuvenation of the environment, once damaged, is a long and expensive process. As such, pecuniary liability should be of greater value and proportional to environmental degradation caused due to the violation. The situation is similar in the matter of non-submission of compliance report under Regulation 20 of the DEIAN 2020.

3. Exclusion of public hearing

Regulation 14(8) of the DEIAN 2020 is couched in ambiguity. It states that the regulatory authority may decide to exclude public hearing if the local situation prevents the conduct of the same due to the impossibility of the local population to participate freely in the public hearing. It is the duty of the state to ensure that any such impossibility is remedied. It is also pertinent that the concerns of the people who stand to lose their homes, livelihoods, community etc., be heard. In a project requiring rehabilitation and resettlement, it is absolutely necessary that the community gets an

opportunity to respond to such a policy or be given the opportunity to claim for rehabilitation and resettlement in the absence of such schemes.

Regulation 14(2) of the DEIAN 2020, excludes a certain set of projects from the scope of public consultation of which exclusion of highway or expressway or multi-modal corridors or ring roads chemical plants and building constructions and area developmental projects stand out. For these activities, there will be an acquisition of property, both public and private and as such, the impact on the environment, lives and livelihood of the people who live in these areas or nearby areas is significant. The rationale behind such an exclusion from the scope of public consultation or the object sought to be achieved by such exclusion is nowhere to be seen. Unfortunately, no justification can prove useful in creating such exclusions.

4. Reduction in the notice period

One might always say that the 20 days of notice of public hearing should enable the community to communicate the concern to the regulatory authority. One should understand that it is only one avenue of expressing one's concern to the concerned authorities. If we practice this mode of exclusion, we are operating under the assumption that all are literate. The reduction of 10 days from the notice period is a significant reduction in time for response.⁵³ No amount of technological advancement can be the justification for the reduction of the notice period.

The advantages of the public hearing were clearly stated in *Samarth Trust v. Union of India and Ors.*⁵⁴, as follows:

The advantage of a public hearing is that it brings about transparency in a proposed project and thereby gives information to the community about the project; there is consultation with the affected parties and they are not only taken into confidence about the nature of the project but are given an opportunity to express their informed opinion for or against the project. This form of a social audit, as it were, provides wherever necessary, social

⁵³ Appendix IV of the EIA 2006 Notification Paragraph 3.1 holds that "...A minimum notice period of 30 (thirty) days shall be provided to the public for furnishing their responses". And the latest DEIA 2020 reduced the notice period to 20 days in Appendix I Paragraph 3.1.

⁵⁴ Supra 42.

acceptability to a project and also gives an opportunity to the EAC to get information about a project that may not be disclosed to it or maybe concealed by the project proponent.⁵⁵

5. Lack of clarity on what constitutes strategic considerations

The DEIAN 2020, in its objects and reasons clearly states that this notification is for the purpose of making the Environmental Clearance process more transparent. Despite the many benefits of a public hearing the conscious exclusion of public hearing in certain projects is a matter of concern.

While the exclusion of projects concerning national defence and security from public consultation seems valid, given that these are matters of state security, the power of the Central Government to determine what projects fall within the ambit of "other strategic consideration" needs clarity. This power is excessive and undefined. At least to the extent of understanding what falls under the scope of strategic consideration needs mentioning. It is not an exhaustive list that we are after (exhaustive lists are cumbersome, restrictive and nearly impossible to make in most cases). What we are after is to know the features and elements of projects that qualify it to be a project of strategic consideration. It is needed to avoid excessive government action and generally in resolving the vagueness of the phrase. It is pertinent that these lacunae be addressed for the preservation of a rule of law democracy. In *Hanuman Laxman Aroskar and Ors. v. Union of India and Ors.*,⁵⁶ the Court emphasised the importance of public access to information and environmental governance based on rule of law.

Public access to information is, in similar terms, fundamental to the preservation of the rule of law. In a domestic context, environmental governance that is founded on the rule of law emerges from the values of our Constitution. The health of the environment is key to preserving the right to life as a constitutionally recognized value under Article 21 of the Constitution. Proper structures for environmental decision making find expression in the guarantee against arbitrary action

⁵⁵ Ibid.

⁵⁶ Supra 45.

and the affirmative duty of fair treatment under Article 14 of the Constitution.⁵⁷

Jasanoff believes that the gaps in information about MIC and issues in the communication of information about it led to the Bhopal gas tragedy.⁵⁸ If the authorities had been receptive and appreciative of the information, then necessary steps could have been taken to prevent this disaster. Post Bhopal, the US saw a great shift towards the 'community- right-to-know'.⁵⁹ Despite us being the victims of this tragedy, reluctant to learn from our mistakes, we dilute public participation and involvement.

6. Exclusion of clearance from regulatory authorities

Regulation 17(5) of the DEIAN 2020, excludes the need for clearance from regulatory bodies and authorities for the grant of prior Environmental Clearances, except in the case of mining, diversion of forest land, projects in coastal regulatory zones and projects that require the acquisition of land. It is to be noted that under Regulation 22 (1) (d) of the DEIAN 2020, regulatory authorities can bring complaints of violations against the project proponent only during the processing of the application. If there is exclusion of clearances from regulatory bodies and authorities, the potential for environmental damage and degradation between the period of grant of prior Environmental Clearance and the application to various bodies cannot be / should not be ignored. The DEIAN 2020 is also silent as to the period within which applications are to be filed before other regulatory bodies and authorities once the Prior- Environmental Clearance is granted. When there is an exclusion from scrutiny by bodies that cater to curbing pollution, protecting environment and compliance with local laws or state laws, we are treading on a dangerous path. As already stated, recovery from environmental damage is a long-drawn process.

⁵⁷ Ibid.

⁵⁸ I Jasanoff, *The Bhopal Disaster and the right to know*, 27 Social Sciences and Medicine 1113, 1113 (1988); See A. Rosencraz & S. Divan, *Environmental Law and Policy in India*, 547 (2nd ed., 2002).

⁵⁹ See A. Rosencraz & S. Divan, *Environmental Law and Policy in India*, 547 (2nd ed., 2002).

7. The limited scope of violation

The definition of the term violation in DEIAN 2020 seems to include only those cases where work has started on the site of the proposed project or an expansion work has started without prior Environmental Clearance. This means even the authorities do not have the power to take action against violations of law be it civil, criminal or environmental. This exclusion of potential violations and ability to take cognizance over such matters puts the entire framework in a dark spot. The role of the public in bringing such violations to the attention of concerned authorities cannot be overlooked. The expose of the MPCL dam project across the river Kali in Karnataka is one example among many to prove the significance of public participation. We have all benefitted from the proactiveness of M. C. Mehta and T. N. Godavarman Tirumalpadu.

In the land of EIA scammers, fraudsters and plagiarizers, one silver lining in the DEIAN 2020 is the inclusion of the provision for cancelling and rejecting prior Environmental Clearances or prior environmental permissions in the event of concealing information or data, submitting misleading, incorrect or false information by the project proponent or the consultant or EIA coordinator or functional area experts who prepared the EIA report.⁶⁰ In addition to this, the consultant or EIA coordinator or functional area experts may be blacklisted for such concealment and misleading information.

V. CONCLUSION

The regulatory framework existing in our country for the prevention of pollution itself has failed in achieving its goals. This fact was brought to our attention not only by media but also by the judiciary and even by our surroundings. The existing frameworks are unable to embrace their already existing powers and responsibilities and take proactive steps. There may be multiple reasons for their inability to meet these challenges that are posed to them. Lack of adequate manpower, both in terms of experience and qualification is a major hurdle that they have to overcome. Even then I

⁶⁰ Supra 52, Regulation 17.

believe it is their paramount duty to proactively engage with environmental concerns and find solutions and work towards creating solutions to remedy the lack of man power. Every city facing waste management problems, every river, every pond that is constantly fed human waste and effluents and ever-increasing air pollution is a testimony to the inaction and lethargy of statute based regulatory authorities that wield enormous powers to protect the environment.

The creation of additional framework like the EIA is essential and one that we cannot do away with. But the dilution of the existing norms is a dangerous path to tread on. We need the regulatory bodies strengthened, with more manpower not only in terms of number but also in qualification. They should be given training to meet the current challenges and they should be appraised with the recent developments in the field of pollution control and environmental protection. On-board training is also important to ensure that the officers are equipped to take decisions and request clarifications when it is needed.

As far as EIA systems are concerned, public participation should continue till project completion and at specific intervals. The State should allot consulting agencies to each project instead of the project proponent. The Environmental Clearance grant, suspension or rejection should include compliances with other environmental and state specific laws. The penalty should be increased for deterrence and the authorities should have the power to impose fines in addition to the penalty if there is breach of EIA promises and guidelines issued by the EAC.

There was an attempt made by the judiciary to create a national monitoring authority. The Central Government was directed to appoint a National Regulator under Section 3(3) of the Environmental (Protection) Act, 1986.⁶¹ It was years after this decision that a concern came before the court as to whether the aforementioned was a suggestion or not.⁶² The Court on 06/01/2014 ordered the Central Government to appoint a National Regulator and submit an affidavit with the notification of appointment of

⁶¹ Lafarge Umiam Mining Pvt. Ltd. v. Union of India & Ors., (2011) 7 SCC 338.

⁶² T. N. Godavarman Tirumalpadu v. Union of India & Ors., (2014) 4 SCC 61.

a regulator by the 31st of March 2014, after holding that the direction to appoint a National Regulator was Mandamus.⁶³ However this is yet to materialize.

As a first step in remedying the failure of environmental protection bodies, the legislature and executive must bear in mind the need to comply with the decisions and instructions of the judiciary. Delay creates challenges of increased economic liability and potential loss of ecosystems and species. The regulator at the national level with offices in all states would have the powers and functions of the Central Government under Environmental (Protection) Act, 1986 if the legislature decides to implement the decision of the Apex Court. However, this body aimed at remedying the shortcomings of the existing EIA mechanism- if it comes alive- will not solve the problems it is hoped to solve. What we need is the Central Government to create an umbrella organization that is autonomous and can function with minimal State interference to monitor and regulate these regulatory bodies and EIA systems. This organization should be formed using a separate law instead of a notification or rule, clearly stating the mandate of the organization, its structure, the qualifications of the head of the organization, minimum qualifications of other officers etc., without leaving them to be determined by rules to be formed later. Only then can we expect these authorities to do their work independently, fearlessly and honestly.

⁶³ Ibid.

VOICE TO THE RIVER: OBSERVATIONS ON LEGAL RIGHTS FOR RIVERS IN INDIA

**Sayanangshu Modak*

ABSTRACT

The emerging environmental jurisprudence of providing legal rights to rivers hold great promise for the conservation and protection of riverine ecosystems at a global scale. It enables rivers to defend themselves either through an appointed legal guardian or through the active involvement of the community. The development of this rights-based framework in India is still at its nascent stage, requiring the creation of new knowledge to guide the process forward. In this context, the paper explores three fundamental questions on providing legal rights to rivers in India – whose responsibility is it to uphold the right, to what extent of the river is the right applicable and at what scale would relevant legislations operate? It draws its observations from the global experience of advancement of this jurisprudence while considering the intricacies specific to the Indian system and being guided by the existing scientific understanding of rivers. It thus provides future directions of research to advance the understanding and applicability of the rights-based framework for protecting rivers.

The dawn of the Anthropocene has witnessed a remarkable change in the way humans have interacted with the planet and its natural systems. Our collective activities have substantially altered the surface of the Earth, its atmosphere, oceans and processes. As a geological marker of this new epoch, the ubiquitous plastic has emerged as a reliable indicator, registering a global presence and forming a distinctive stratum. Rivers too have not been left untouched! The veins and arteries of the planet have been clogged, impounded and polluted; such that their flows have been reduced and much of their ecosystems altered through human influence. The rivers that had once created and nurtured the great civilizations of the past now require protection for their survival as they continue to sustain human

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societies through the delivery of various ecosystem services.¹ An entire suite of environmental laws came into existence globally after the United Nations Conference on the Human Environment (1972) in Stockholm. However, modern environmental laws are essentially anchored on an anthropocentric paradigm that has remained ineffective as human activities continue to irreversibly damage natural ecosystems. A pertinent reason for such weaknesses permeating into the laws that were intended to protect the environment stems from the fact that legal systems treat nature as a property that can be exploited for human needs instead of acknowledging it as an integral ecological partner. This has created a false dogma of humans over nature and undermines the interconnectedness that humans share with nature.² It is claimed that often an ‘environmental threshold’ perspective is put forward to operationalize such laws thereby legalizing environmental harms to a certain level and masking the net destruction of the natural world.³

These inherent weaknesses in the current paradigm have created the need for a new form of ecological governance that prioritizes and aims for nature’s right to flourish. This encompasses the right to restoration, the right to its natural processes, and the right to ecosystem functioning without interference.⁴ However the primary impression of the term ‘Right of Nature (“RoN”)’ is restricted to defending nature’s right in the court of law as against its protection by humans, and paving way for sustainable development. ‘Sustainability’ as a concept is also set to undergo revisions

¹ The Millennium Ecosystem Assessment defined Ecosystem Services as the benefits people obtain from ecosystems. These include provisioning services such as food, water, timber, and fiber; regulating services that affect climate, floods, disease, wastes, and water quality; cultural services that provide recreational, aesthetic, and spiritual benefits; and supporting services such as soil formation, photosynthesis, and nutrient cycling. The human species, while buffered against environmental changes by culture and technology, is fundamentally dependent on the flow of ecosystem services. See Millenium Ecosystem Assessment, *Ecosystems and Human Well-being: Synthesis*, 2005 <http://www.millenniumassessment.org/documents/document.356.aspx.pdf>, last seen on 22/04/2021.

² S. Borràs, *New Transitions from Human Rights to the Environment to the Rights of Nature*, 5 Transnational Environmental Law 113, 119 (2016).

³ D. Lee, *Rights of Nature at the International Level*, Earth Law Center, available at <https://www.earthlawcenter.org/blog-entries/2017/10/rights-of-nature-within-the-un-and-iucn>, last seen on 22/04/2021.

⁴ C.L. Follette, *Rights of Nature: The New Paradigm*, American Association of Geographers, available at <http://news.aag.org/2019/03/rights-of-nature-the-new-paradigm/>, last seen on 22/04/2021.

as the framework of RoN gets mainstream and wider acceptance. For instance, in its current form, the Sustainable Development Goals (“SDGs”) are grounded in the Universal Declaration of Human Rights as echoed by one such goal – SDG 6 (Ensure availability and sustainable management of water and sanitation for all). This draws its power from the human right to water as a prerequisite for all other rights.⁵ However, it is self-defeating in a way when freshwater sources (rivers, lakes etc.) themselves do not have a right to exist and thrive in the first place. Providing legal personhood and a guardian to defend itself in a court of law is expected to give nature the required space for ecological governance and a strong tool to defend itself from the biased laws that only take into account human needs. Within this emerging environmental jurisprudence (or earth jurisprudence), rivers demand special attention since the flow in rivers acts as the life-nourishing blood within a landscape, sustaining people and wildlife and playing a key role in the global water cycle.

This emerging environmental jurisprudence is predicted to become a global movement in the 21st century, forcing countries to regulate the human use of freshwater from rivers and preventing harm to riverine ecosystems. This article explores three fundamental questions regarding the rights-based movement for protecting rivers in India –

- i. Whose responsibility is it to uphold the right?
- ii. To what extent of the river does the right apply?
- iii. At what scale would the right-based legislations operate?

The observations have been formulated by drawing from an emerging body of literature and a tapestry of global experiences concerning this movement. In doing so, it manages to outline the issues that will have to be dealt with if the rights-based framework were to be applied to the Indian context.

⁵ U.N. General Assembly, *The human right to water and sanitation*, Res. 64/292, Sess. 64, U.N. Document A/RES/64/292, 2 (03/08/2010) available at <https://digitallibrary.un.org/record/687002?ln=en>, last seen on 22/04/2021.

I. RIGHT OF THE RIVER – WHOSE RESPONSIBILITY IS IT TO UPHOLD IT?

The whole possibility of recognizing legal rights can be traced to the *Sierra Club v. Morton* case⁶ of 1972 in the United States of America. The article published by law professor Christopher Stone – ‘Should Trees Have Standing?’⁷, caught the attention of Supreme Court Justice William O. Douglas. Stone had argued that conferring legal personality to nature would enable nature to have rights and not be considered as the property of another person. This is true, even though other persons would be necessary to uphold the rights of nature. Though the court ruled that the NGO Sierra Club, who had sought to block the development of a ski resort in the Sierra Nevada Mountains, could not allege any injury since only the forest was injured and not the plaintiff; Justice Douglas cited Stone’s article to issue the famous dissenting opinion that said “*Contemporary public concern for protecting nature’s ecological equilibrium should lead to the conferral of standing upon environmental objects to sue for their own preservation.*”⁸

1. Observations on legal rights for water bodies and systems from across the world

Thereafter, in 1995, the Community Environmental Legal Defense Fund (“CELDF”) – a public interest law firm, was set up to provide legal services to communities that faced a threat to their local environment, agriculture, economy and quality of life.⁹ The modus operandi was to first draft ordinances to enable communities to ban particular activities, the second was to draft ordinances that took away rights from corporations to do so and, finally, the third was to include rights of nature and enable citizens to exercise these on behalf of nature.¹⁰ Two examples of how this

⁶ *Sierra Club v. Morton*, 405 U.S. 727 (1972, Supreme Court of the United States).

⁷ C.D. Stone, *Should Trees Have Standing? —Towards Legal Rights for Natural Objects*, 45 Southern California Law Review 450 (1972).

⁸ *Sierra Club v. Morton*, 405 U.S. 727, 742 (1972, Supreme Court of the United States).

⁹ *About CELDF*, Community Environmental Legal Defense Fund, available at <https://celdf.org/about-celdf/>, last seen on 14/01/2021.

¹⁰ T. Linzey, *Of Corporations, Law, and Democracy: Claiming the Rights of Communities and Nature*, 25th Annual EF Schumacher Lecture, available at <https://centerforneweconomics.org/publications/of-corporations-law-and-democracy/>, last seen on 14/01/21.

enabled communities to reclaim their right over water resources can be understood from the ordinances by the city of Pittsburgh and the city of Santa Monica. In the former case, it led to the banning of fracking, removed the rights of corporations responsible for it and laid the way for rights of natural communities and ecosystems such as wetlands, streams, rivers, aquifer and others to be established within the city.¹¹ In the case of the latter, the move was not reactionary but proactive as Santa Monica adopted the Sustainability Rights Ordinance.¹² They proclaimed that residents of the City may bring actions to protect groundwater aquifers, atmospheric systems, marine waters, and native species within the boundaries of the City.¹³

South America has also seen a fair share of participation in the rights-based movement for rivers with Ecuador and Bolivia being stellar examples, adopting constitutional revisions for embedding this framework. In 2008, the country of Ecuador adopted the rights of nature in its new Constitution.¹⁴ In 2011, the first lawsuit¹⁵ was placed under the right to nature provision against the new road constructed along the Vilcabamba River in Loja Province for dumping its rubble in the river. It was ruled in favour of the river asking the government to take immediate action.¹⁶ In 2010, Bolivia's Constitution also adopted the right of nature *vide* Section I of Chapter V of Part I which includes the following: "*Article 33: Everyone has the right to a healthy, protected, and balanced environment.*"¹⁷ They also approved the Law of the Rights of Mother Earth and the Framework Law of Mother Earth and the Integral Development of Living Well (Law 300 of the Plurinational State).¹⁸ Though it includes a set of institutions that are

¹¹ City of Pittsburgh, Pennsylvania Code of Ordinances, Title Six, Art. 1, Ch. 618.3(b).

¹² Sustainability Rights Ordinance, S. 10 (United States).

¹³ C.C. Kaplan, *Perspectives on Rights of Nature in Santa Monica, California*, UT Electronic Theses and Dissertations, 2016.

¹⁴ Constitución Política de la República del Ecuador, Art. 10.

¹⁵ N. Greene, *The First Successful Case of the Rights of Nature Implementation in Ecuador*, Global Alliance for the Rights of Nature, available at <https://therightsofnature.org/first-ron-case-ecuador/>, last seen on 21/03/2021.

¹⁶ *Indigenous People and Nature: A Tradition of Conservation*, UN Environment Programme (26/04/2017) available at <https://www.unep.org/news-and-stories/story/indigenous-people-and-nature-tradition-conservation>, last seen on 08/02/2021.

¹⁷ Bolivia (Plurinational State of)'s Constitution of 2009, Art. 33.

¹⁸ Law of the Rights of Mother Earth and the Framework Law of Mother Earth and the Integral Development of Living Well (Law 300 of the Plurinational State) (Bolivia); P.V.

in place to take action if nature's rights are violated, it also states that humans have the right to exploit nature.¹⁹ It is a paradox in itself and these loopholes have to be checked for a wholesome sustainable approach. The third country in the continent to recognize a river as a legal person was Colombia in 2016. The Colombian Constitutional Court ordered for the removal of the mines that were operating on the banks of the Atrato river upon hearing the plea of the community groups who had engaged the Center of Studies for Social Justice to fight their case.²⁰ The Court further stated that the Atrato River had legal rights regarding its protection, conservation, maintenance and rehabilitation.²¹ It also ordered the government to establish a commission of guardians comprising two representatives – one from the community and another from the government, further aided by an 'advisory team'.²²

Examples from Australasia include cases from New Zealand and Australia. New Zealand adopted national-level legislation in 2014 granting legal personality to Te Urewera via the Te Urewera Act.²³ It comprises lakes Waikaremoana and Waikareiti as well as the surrounding forest and land. Later they also added Te Awa Tupua which included 'the Whanganui River' and its surrounding.²⁴ In this, the river is defined as a living and integral whole, whose life is inseparable from the Whanganui Iwi. Te Pou Tupua – the guardian of the Te Awa Tupua, the legal entity, comprises of two persons one of which is to be appointed by the Crown and the other by the Whanganui Iwi.²⁵

Calzadilla and L.J. Kotzé, *Living in harmony with nature? A critical appraisal of the rights of Mother Earth in Bolivia*, 7 *Transnational Environmental Law* 397, (2018).

¹⁹ Ibid.

²⁰ Centre for Social Justice Studies v. Presidency of the Republic, Judgment T-622/16, Constitutional Court of Colombia.

²¹ Ibid.

²² P.V. Calzadilla, *A Paradigm Shift in Courts' View on Nature: The Atrato River and Amazon Basin Cases in Colombia*, 15 *Law, Environment & Development Journal* 51 (2019).

²³ Te Urewera Act, No. 51, 2014 (New Zealand); I. Davison, *Whanganui River Given Status of a Person under Unique Treaty of Waitang Settlement*, *New Zealand Herald* (15/03/2017), available

at http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11818858, last seen on 08/02/2021.

²⁴ Te Awa Tupua (Whanganui River Claims Settlement) Act, 2017 (New Zealand).

²⁵ S.20, Te Awa Tupua (Whanganui River Claims Settlement) Act, 2017 (New Zealand); L. Charpleix, *The Whanganui River as Te Awa Tupua: Place-based law in a legally pluralistic society*, 184 *The Geographical Journal* 19 (2017).

In the case of Australia, the state of Victoria revamped the mechanism for decision-making with regard to water entitlement for the environment. Instead of the earlier arrangement where the Ministry of Environment had the last word on such decisions, a new body was created in 2010 – the Victorian Environmental Water Holder (“**VEWH**”). The VEWH was designated as the legal person to hold water rights and decide how to use the available water each year. It could also buy and sell water in the water market.²⁶

Africa too has a representation in the shift from an anthropocentric approach to an ecocentric approach. Uganda became the first country in Africa to recognize the rights of nature in the National Environment Act, 2019,²⁷ paving the way for a dent in the overarching legal structure in the continent that is based on anthropocentrism.²⁸ Section 4 of the Act states that “*Nature has the right to exist, persist, maintain and regenerate its vital cycles, structure, functions and its processes in evolution*”. This means that citizens and custodian communities can now bring cases in front of Ugandan courts, holding anyone who damages or pollutes the natural environment to account.²⁹

In Asia, two neighbours – India and Bangladesh, which also share many transboundary rivers between them including the Ganga, Brahmaputra and Meghna, have also been represented in the global map through judicial decisions which have been taken in these countries. The Uttarakhand High Court in India recognized that the Ganga, its main tributary, the Yamuna, as well as “*all their tributaries, streams, every natural water flowing with flow continuously or intermittently of these rivers*” would be “*legal and living entities having the status of a legal person with all corresponding rights, duties and liabilities*”.³⁰ Bangladesh also witnessed a landmark verdict when the High Court

²⁶ S.33DD, The Water Act 1989, (Australia); E.L. O'Donnell & J. Talbot-Jones, *Creating legal rights for rivers*, 23 Ecology and Society (2018).

²⁷ S.4, The National Environment Act, 2019, (Uganda).

²⁸ O.T. Wuraola, *The Legal Rights of Natural Entities: African Approaches to the Recognition of Rights of Nature*, 137 in *Human Rights and the Environment under African Union Law* (M. Addaney & A.O. Jegede, 1st ed., 2020).

²⁹ S. 4(2), The National Environment Act, 2019, (Uganda).

³⁰ Mohd. Salim v. State of Uttarakhand, (2017) 2 KLJ (NOC 4) 7; E.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) available at <https://academic.oup.com/jel/article-abstract/30/1/135/4364852?redirectedFrom=fulltext>, last seen on 21/03/2021.

Division of the Supreme Court of Bangladesh recognised the Turag River as a living entity and legal person in 2019. It also observed that the same broad argument which is applicable for the Turag river can be applied to all rivers within the territory of Bangladesh. It thereafter appointed the National River Protection Commission (“**NRPC**”) as the legal guardian for all rivers including the Turag.³¹ A mandate was placed that the NRPC had to free all rivers of pollution and encroachment, ensure navigability, protect, conserve, beautify and carry out related developments on all rivers.³²

Table 1: Legal Personhood for Rivers/Water Resources.

Country	Type of Legislation creating the ‘right’	Who has the responsibility to invoke the law for upholding the right?
New Zealand	Public Act	Legal Guardian
Australia	Sub-national/Provincial Act	Legal Guardian
Ecuador	Constitutional Law	Citizen(s)
Bolivia	Constitutional Law	Legal Guardian
Colombia	Judicial Decision	Legal Guardian
Bangladesh	Judicial Decision	Legal Guardian
India	Judicial Decision	Legal Guardian
Uganda	National Law	Citizen(s)
United States of America	Local Law	Citizen(s)

2. Inferring from global observations and the Indian context

It can be seen that the rights-based approach for protecting freshwater bodies is emerging in different parts of the world through a wide variety of legal mechanisms and at different jurisdictional scales (Refer to Table 1).

³¹ Bangladesh Supreme Court, High Court Division, Writ Petition No. 13898/2016 (2019).

³² S. Islam & E. O'Donnell, *Legal rights for the Turag: rivers as living entities in Bangladesh*, 23 Asia Pacific Journal of Environmental Law 160 (2020).

Moreover, two trends can also be observed – one that explicitly requires the creation of a legal guardian for looking after the interests of the river, while the rest is the court's responsibility to uphold them through the active involvement of the community and upholding the human responsibility to better protect rivers from degradation.³³ This provides two separate pathways for operationalising the rights-based framework despite emerging from the same objective of protecting the river from degradation while assuming an eco-centric approach as against an anthropocentric one. Further, the knowledge and experience of indigenous populations, who have a rich tradition of coexisting harmoniously with nature through a deep respect and a strong sense of belonging to it, can be harnessed to promote RoN. They are a natural ally in the process of developing legislative protocols since their interdependent relationship with nature and a non-anthropocentric system serves as an existing primer for broader frameworks.³⁴ However, it must be borne in mind that cases exist to highlight that the nature of indigenous relations with the rights of nature as primarily strategic and not genealogical.³⁵ Overstating the affinities is not desirable either.

Moreover, the Indian context brings an added layer of complexity. In a culturally rich country like India, there will always be a perceived conflict between the right of nature and the human right to 'culture'. For example, in the Hindu philosophical worldview, it is a common belief that one can break the perpetual cycle of *samsara* – birth and rebirth, and achieve *moksha* or eternal liberation by having their ashes spread in the Ganga at Varanasi.³⁶ This has led to an increased footfall of people into the city and has led to the deterioration of the water quality in the river due to the presence of sewage, industrial waste, human and animal carcasses, etc.³⁷ Thus, in this

³³ C.J.I. Magallanes, *From Rights to Responsibilities using Legal Personhood and Guardianship for rivers*, 216 in *ResponsAbility: Law and Governance for Living Well with the Earth* (B. Martin, L.T. Aho & M. Humphries-Kil, 1st ed., 2019).

³⁴ L. Cano, *Rights of Nature: Rivers That Can Stand in Court*, 7 *Resources* 13 (2018).

³⁵ M. Tănăsescu, *Rights of Nature, Legal Personality, and Indigenous Philosophies*, 9 *Transnational Environmental Law* 429, 429 (2020).

³⁶ K. Kakar, *Afterlife and Fertility in Varanasi*, 187, in *Imaginations of Death and the Beyond in India and Europe* (G. Blumberger & S. Kakar, 1st ed., 2018).

³⁷ B.D. Tripathi & S. Tripathi, *Issues and challenges of river Ganga*, 211, in *Our National River Ganga* (R. Sanghi, 1st ed., 2014).

case, the human right to practice one's own faith is in direct conflict with the right of the river to not be polluted. Owing to the newness and lack of judicial precedent, the right of humans will most likely win. If the reason for pollution or exploitation has a cultural backing, then legislatures will be in a difficult situation trying to resolve the deadlock with culture versus the right of nature.

The Indian Constitution already has a provision for an individual to seek redressal for the violation of their fundamental rights by filing Public Interest Litigations (“PIL”) and Writ Petitions under Articles 32 and 226. There have been numerous instances in India, where a PIL has been used to resolve environmental disputes with the broadened concept of *locus standi*. Numerous environmental cases have had litigants who had themselves faced little to no harm.³⁸ However, the long-standing issue with PIL has been the implementation of the order by the statutory authorities. This itself questions the reason for appointing the same regulatory authority as the *locus parentis* for the rivers,³⁹ as senior public officials who have been made the *locus parentis* by the Court already have numerous obligations which might conflict with these new responsibilities to protect the river.⁴⁰

II. RIGHT OF THE RIVER – TO WHAT EXTENT?

There have also been cases when elements of an inherently connected natural system have been reduced to manageable units for the purpose of conferring legal rights. In such cases, little attention has been paid to the connections that exist in the natural world between different elements and how each is dependent on the other. A case in point is the judicial case involving the Vilcamba River in Ecuador.⁴¹ In order to widen the road in 2008, the local government of the Loja province allowed the dumping of rocks and excavation materials into the river. This subsequently led two

³⁸ M.G. Faure & A. V. Raja, *Effectiveness of environmental public interest litigation in India: Determining the key variables*, 21 Fordham Environmental Law Review 239, 254 (2010).

³⁹ I. Chaturvedi, *Why the Ganga should not claim a right of the river*, 44 Water International 719, (2019).

⁴⁰ G. Eckstein et al., *Conferring legal personality on the world's rivers: A brief intellectual assessment*, Water International 804, 822 (2019).

⁴¹ Judgment, Provincial Court of Loja, Case No. 11121-2011-0010 (Ecuador).

people to file a case or ‘protective action’ against the local government with the argument that the river has the right to its own natural course.⁴² The court gave its verdict in a manner that was prompt and decisive by invoking nature’s rights under Article 71 of the Constitution:⁴³

Nature, or Pacha Mama, where life is reproduced and occurs, has the right to integral respect for its existence and for the maintenance and regeneration of its life cycles, structure, functions and evolutionary processes. All persons, communities, peoples and nations can call upon public authorities to enforce the rights of nature.⁴⁴

However, the court also balanced the rights of the river with that of the need to improve the access route to the ‘Valley of Longevity’ – a valley situated 52 kilometres from the nearest town of Loja and at an altitude of 1500 metres. The valley is famed to inhabit people who enjoy long life spans, thereby encouraging people from other countries and regions to reside there post-retirement.⁴⁵ Therefore, the valley quickly became a prime attraction amongst new age soul-searchers,⁴⁶ thereby holding a distinct economic value for the region. The Court permitted the Provincial Government to remove trees for widening the road despite making it obligatory for the authority to not dump the rubble in the river. This showcases a narrow perspective in which these rights could be interpreted by the courts in the absence of a legal guardian.⁴⁷ Closer to home, in the case involving the Ganga river, it took a second Public Interest Litigation where the petitioner explicitly extended the ambit of legal personhood to all other natural objects, including glaciers,⁴⁸ for the court to bundle them together and extend the scope of legal personhood to include all-natural objects.⁴⁹

⁴² M.V. Berros, *Defending rivers: Vilcabamba in the South of Ecuador*, 6 *RCC Perspectives* 37, 38 (2017).

⁴³ L. Cano, *Rights of Nature: Rivers That Can Stand in Court*, 7 *Resources* 13 (2018).

⁴⁴ Constitution of the Republic of Ecuador, Art. 71.

⁴⁵ *Supra* 42.

⁴⁶ A. Bland, *Vilcabamba: Paradise Going Bad?*, *Smithsonian Magazine* (20/02/2013), available at <https://www.smithsonianmag.com/travel/vilcabamba-paradise-going-bad-21774567/>, last seen on 10/02/2021.

⁴⁷ *Supra* 33.

⁴⁸ E.L. O’Donnell, *At the Intersection of the Sacred and the Legal: Rights for Nature in Uttarakhand, India*, 30 *Journal of Environmental Law* 135, 140 (2018).

⁴⁹ *Lalit Miglani v. State of Uttarakhand*, Writ Petition (PIL) No. 140/2015 (High Court of Uttarakhand, 30/03/2017).

Going forward, it is important to realise that rivers are connected with not just their glaciers but also with various other elements of nature such as the floodplains, the aquifer, the atmosphere and the ocean. Water, in its various states, acts as a conduit for the exchange of sediments, nutrients and biota within these systems, creating complex and interdependent processes. As such, four dimensions of connectivity, or interactive pathways, have been identified. These are lateral, longitudinal, vertical and temporal (Ref. to Fig 1).⁵⁰ Any rights-based framework for the river needs to be cognisant of these four dimensions of connectivity which is not just essential for the riverine ecosystem but also the landscape through which it flows.

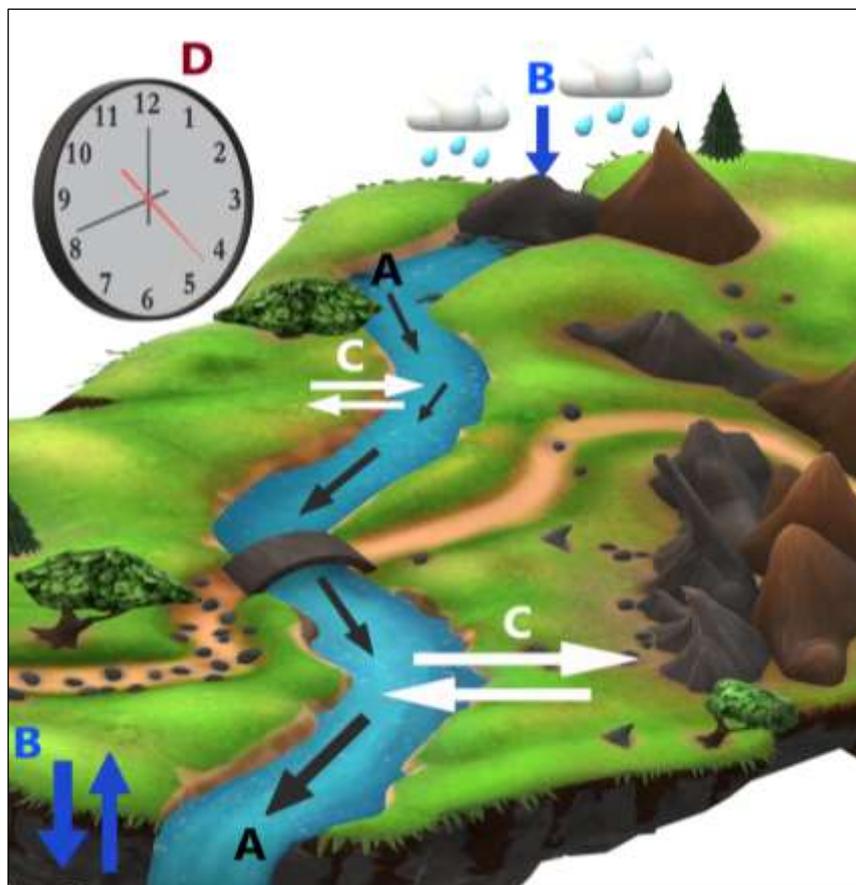


Figure 1: Four dimensions of river connectivity - A. Longitudinal, B. Vertical, C. Lateral and D. Temporal

The river consists of headwater in the source regions from where the bulk of the sediment load is generated, marking the upper stretch. The sediment is then transported through the middle stretch of the rivers and then

⁵⁰ J. Bandyopadhyay, *Water, ecosystems and society: a confluence of disciplines* (1st ed., 2009).

subsequently deposited in the lower stretch to form depositional landforms such as floodplains and deltas. In their landmark research for mainstreaming the river continuum concept across the entire stretch of a river, a group of scientists has provided a generic description of conditions prevalent in each of these stretches.⁵¹ The continuous gradient of physical conditions from the headwaters to the mouth of the river influences a series of adjustments in the constituent population of aquatic life, signifying a biological continuum. Any tinkering with the longitudinal connect by impounding water or diverting it through tunnels or open channels could damage the pre-existing conditions.

Similarly, rivers also interact along the entire breadth of the river corridor, through its banks, with its active floodplains and the extended riparian zone. This lateral connection allows for the two-way transfer of sediments, nutrients, and biota. When the floodplains get inundated due to high flows in the rivers, soil nutrient concentration gets regulated in the floodplains and the exchange of nitrogen with the atmosphere is stimulated.⁵² This enhances the floodplain functions like biomass production.⁵³ In another way, the inundation of floodplains allows for the release of dissolved organic carbons, nitrogen and phosphorous from the leaf litter and the floodplain soils. These, along with decaying plant matter, are transported back into the river channel during the flood recession.⁵⁴ This greatly nourishes the river and enhances the productivity of the fluvial ecosystems.⁵⁵ Human interventions such as the construction of embankments along the banks of a river can deeply impact this process.

⁵¹ R.L. Vannote et al., *The River Continuum Concept*, 37 *Canadian Journal of Fisheries and Aquatic Sciences* 130 (1980).

⁵² R. Ogden & M. Thoms, *The importance of inundation to floodplain soil fertility in a large semi-arid river*, 28 *Internationale Vereinigung für Theoretische und Angewandte Limnologie* 744, 747 (2002).

⁵³ M.V. Oorschot, C. Hayes & I.V. Strien, *The influence of soil desiccation on plant production, nutrient uptake and plant nutrient availability in two French floodplain grasslands*, 14 *Regulated Rivers: Research and Management* 313 (1998).

⁵⁴ D.S. Baldwin & A.M. Mitchell, *The effects of drying and reflooding on the sediment or soil nutrient dynamics of lowland floodplain systems: synthesis*, 16 *Regulated Rivers: Research and Management* 457 (2000).

⁵⁵ A.I. Robertson, A. Burns, & T. Hillman, *Scale dependent lateral exchanges of organic carbon in a dryland river during a high flow experiment*, 67 *Marine and Freshwater Research* 1293 (2016).

The vertical connection exists between the river and its catchment with the atmosphere, and between the river and the underlying aquifer through an intermediate zone – also known as the hyporheic zone. Water is received in the catchment either as snowfall or rainfall and it also evaporates from the catchment either directly as water vapour or when transpired by plants. Rivers may also gain water from an underlying unconfined aquifer or lose water to it depending on the fluctuation of the water table. During this exchange of water through the hyporheic zone, microbial activity and chemical transformation are also greatly stimulated by the percolating water. This allows water with nitrates and dissolved organic carbon to be released to sustain base flow during the dry periods.⁵⁶ Any excessive withdrawal of water may impact this dynamic exchange. This is becoming a growing concern due to the exploitation of groundwater for agriculture.⁵⁷ Lastly, the fourth dimension refers to temporal connectivity and signifies the continuous physical, chemical, and biological interactions that take place over time and in a somewhat predictable pattern. This can happen seasonally, over many years, or even over various generations. These lead to the creation of productive ecosystems and, over time, lead to the biocomplexity of riverscapes through a process of ecological succession.⁵⁸

The extent to which the rivers can exercise their rights or communities can use legal provisions for upholding their rights needs to be arrived at through a scientific assessment. This needs to be done by considering the specificities of the river basin and the concept of river connectivity and exchange pathways can be an initial starting point for such an assessment. Any arbitrary judicial order concerning the delineation of the scope of the right might render it underutilised or ineffective in real terms. As such six fundamental values concerning the rights of the river have been identified through the Grant Wilson Universal Declaration of River Rights⁵⁹. These are –

⁵⁶ J.P. Zarnetske et al., *Dynamics of nitrate production and removal as a function of residence time in the hyporheic zone*, 116 *Journal of Geophysical Research: Biogeosciences* (2011).

⁵⁷ M. Giordano, *Global groundwater? Issues and solutions*, 34 *Annual review of Environment and Resources* 153 (2009).

⁵⁸ C. Amoros & G. Bornette, *Connectivity and biocomplexity in waterbodies of riverine floodplains*, 47 *Freshwater Biology* 761 (2002).

⁵⁹ *Universal Declaration of River Rights*, Earth Law Centre, available at

- i. The right to flow.
- ii. The right to perform essential functions within its ecosystem.
- iii. The right to be free from pollution.
- iv. The right to feed and be fed by sustainable aquifers.
- v. The right to native biodiversity.
- vi. The right to restoration.

However, these are only normative guidelines and not blueprints for actions. The four dimensions of connectivity are an embodiment of the integrated nature and functioning of natural systems. Therefore, the legal provisions to protect the rivers through a rights-based approach should reflect such integrations. Without an explicit recognition and appreciation of such connections, the whole purpose of protecting rivers and their ecosystems from degradation might be defeated or, at best, help in limited fulfilment.

III. RIGHT OF THE RIVER – AT WHAT SCALE?

In the landmark judgements of the Uttarakhand High Court, it was ruled that the Ganga, the Yamuna, their tributaries, the glaciers that feed their headwaters and all other natural objects were legal persons, enjoying legal rights.⁶⁰ Furthermore, the judgments also asserted that these are legal minors in the eyes of the law and therefore, required legal guardians to fight their cases. These judgements were passed based on two separate PILs. The first was filed by one Mr. Mohammed Salim regarding the illegal construction and encroachments along the Ganga river and the inability to constitute a Ganga Management Board.⁶¹ The second was filed by another Mr. Lalit Miglani who wanted the ‘personhood status’ to be extended to various natural objects in the state which were important for the sustenance of the two rivers – the Ganga and the Yamuna. His main assertion was that the government authorities had failed in discharging their statutory duties

<https://static1.squarespace.com/static/55914fd1e4b01fb0b851a814/t/59c5a79ba8b2b0dc3295a8af/1506125725815/Universal+Declaration+of+River+Rights+%28Draft%29+Sept+2017.pdf>, last seen on 05/02/2021.

⁶⁰ Mohd. Salim v. State of Uttarakhand, (2017) 2 KLJ (NOC 4) 7; Lalit Miglani v. State of Uttarakhand, Writ Petition (PIL) No. 140/2015 (High Court of Uttarakhand, 30/03/2017).

⁶¹ Mohd. Salim v. State of Uttarakhand, (2017) 2 KLJ (NOC 4) 7.

in curbing sewage discharge into the Ganga and prevention of water pollution.⁶²

Despite the forward-looking verdict which had created ripples in the legal community and amongst environmentalists, it faced flak when the Uttarakhand Government appealed to the Supreme Court of India. The state government cited the legal and administrative complexities which would emerge if the order of the Uttarakhand High Court were to be implemented. One of the reasons which were cited was the inability of the state government to act unilaterally since the regulation of interstate rivers is guided by the Union Government and the state had no role to play.⁶³ The Ganga and the Yamuna along with most of their tributaries are not just interstate rivers but also cross international borders (Ref. to Fig 2).

Therefore, based on the discussion in the previous section, assigning legal personhood for the protection of the river's health, the ecosystems dependent on it and the biogeochemical processes dependent on the flow of water and flow regimes would be meaningless if the river system is not treated as a whole. Reducing the river to stretches within the state boundaries, as was the unintentional but inevitable result of the Uttarakhand High Court verdict, would be disregarding the connections which have been elaborated in the previous section (Section 2). This directly conflicts with the foundational principles that the legal provisions would be designed from an eco-centric perspective. Therefore, this warrants a critical look at the existing constitutional provisions for the governance of interstate rivers and to explore how the right-based framework might influence this arrangement.

⁶² Lalit Miglani v. State of Uttarakhand, Writ Petition (PIL) No. 140/2015 (High Court of Uttarakhand, 30/03/2017).

⁶³ *SC stays Uttarakhand HC order on Ganga, Yamuna living entity status*, The Indian Express (08/07/2017), available at <https://indianexpress.com/article/india/sc-stays-uttarakhand-hc-order-on-ganga-yamuna-living-entity-status-4740884/>, last seen on 06/02/2021.

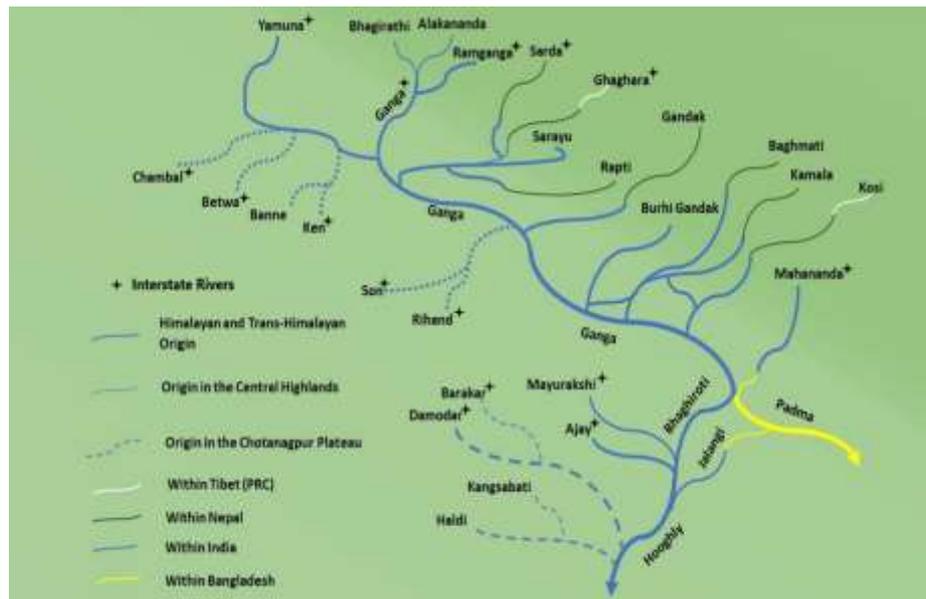


Figure 2: River line diagram of the Ganga Padma System.

Source: Modified by authors from P. Kapuria & S. Modak, *An Eco-Hydrological Perspective to Monsoon High Flows in the Ganga-Padma System: Imperatives for Flood Management*, ORF Occasional Paper No. 214, September 2019, Observer Research Foundation.

The initial case which started with the filing of the petition by Mohammed Salim was primarily meant to seek redressal for the limbo regarding the constitution of the Ganga Management Board following the creation of Uttarakhand from Uttar Pradesh. According to the Uttar Pradesh Reorganization Act of 2000, the Central Government was mandated to constitute a board for administration, construction, maintenance, and operation of projects for the use of river water for irrigation, rural and urban water supply, hydropower generation, navigation, industries and any other purpose as notified by the Central Government in the Official Gazette.⁶⁴

The plea stated that even after 14 years since the formation of Uttarakhand, the property dispute concerning the river had continued. The petitioner mentioned that the private respondents had purchased government land and raised constructions, taking the ground that the property belonged to the State of U.P. and that the boundaries were yet to be determined. It was

⁶⁴ S. 80, The Uttar Pradesh Reorganisation Act, 2000.

later determined that the encroached land was owned by the Irrigation Department and the onus of removing the encroachment also lay with the same department. However, although the U.P. Irrigation Department was permitted to manage Hydel Projects associated with the Ganga canal, the state was only a temporary custodian of the assets and land associated with the Ganga canal. Moreover, a high-level committee had been convened by both the states and a settlement had been reached regarding the distribution of property right on 02.02.2016. The final decision had to be taken by the Central Government and it had simply delayed the process. The court observed that the delay by the Central Government created avoidable fissures and frictions affecting the rights and liabilities of the two states of the federation to practice cooperative federalism.⁶⁵

The existing constitutional provisions related to water and the division of legislative powers between the Union of India and its federal constituents reflect a certain degree of ambiguity. Schedule VII of the Indian Constitution creates a distinction between the use of water within a state and for the purpose of regulating interstate waters. It bestows power on the Union Parliament to formulate laws and mechanisms for regulating interstate rivers (Entry 56 of List I – Union List)⁶⁶ while allowing the states to decide on the use of water for various purposes like water supply, irrigation and canals, drainage and embankments, water storage and water power (Entry 17 of List II – State List)⁶⁷, subject to the provisions of Entry 56 of List I.⁶⁸ Despite the constitutional mandate, the Centre has remained reluctant in assuming a proactive role for the governance of interstate rivers and has relied on the exigent formula of dispute resolution.⁶⁹ Moreover, in the absence of any proactive legislation limiting the use of interstate waters, the legislations in the states have considered the entire extent of surface water available within its borders often leading to conflicting claims with

⁶⁵ Mohd. Salim v. State of Uttarakhand, (2017) 2 KLJ (NOC 4) 7.

⁶⁶ Schedule 7(I)(56), the Constitution of India.

⁶⁷ Schedule 7(II)(17), the Constitution of India.

⁶⁸ H. Salve, *Interstate River Water Disputes*, in *The Oxford Handbook of The Indian Constitution* (S. Choudhary, M. Khosla & P.B. Mehta, 1st ed., 2016).

⁶⁹ S. Chokkakula, *Interstate River Water Governance: Shift focus from conflict resolution to enabling cooperation*, Centre for Policy Research (13/06/2019), available at <https://www.cprindia.org/news/interstate-river-water-governance-shift-focus-conflict-resolution-enabling-cooperation>, last seen on 06/02/2021.

neighbouring states that share the river or its tributary.⁷⁰ This imprecise distribution of power between the Centre and the states has led to a federal-jurisdictional ambiguity.⁷¹

As discussed before, there exist two pathways for operationalising the rights-based framework in India. The one that does not require a legal guardian to be created might see the strengthening and regularisation of the existing mechanisms for filing environmental PILs in the country and more instances of judicial activism. However, based on global experiences, it can be assumed that such instances will be sporadic in their occurrence and localised in their scope. It might also be inadequate to deal with the plethora of challenges that currently plague the rivers in the country, particularly when one considers the impediments on the four dimensions of connectivity which have already been discussed.

The second pathway would require the creation of a legal guardian. Ideally, the legal guardian should be given an independent authority with no conflict of interest. The qualification for the position, the term of office and salary should be pre-decided for avoiding any political interference after the appointment. Similarly, provisions should be in place to allocate funds mandatorily and unbiasedly, and check flow of funds free and fair. These design aspects can be in line with the provisions for other existing independent bodies like the Election Commission (EC), and the Comptroller and Auditor General of India (CAG). The legal guardian should also be able to engage with both tribunals and courts along with any aggrieved party. The body should also have the capacity to review projects retrospectively for evaluating the degradation caused to the rivers. This points out the critical design elements that will have to be considered for ensuring the independent functioning and autonomy of the legal guardian.

⁷⁰ S. Modak & A.K. Ghosh, *Federalism and Interstate River Water Governance in India*, Observer Research Foundation Occasional Paper No. 294, (2021) available at <https://www.orfonline.org/research/federalism-and-interstate-river-water-governance-in-india/>, last seen on 07/02/2021.

⁷¹ A.K. Ghosh & S. Modak, *Interstate river water disputes: Chasing ambiguities, finding sense*, Observer Research Foundation (15/10/2020) available at <https://www.orfonline.org/expert-speak/interstate-river-water-disputes-chasing-ambiguities-finding-sense/>, last seen on 07/02/2021.

IV. WAY FORWARD

The three questions that have been raised in this article are intended to provide a future direction of research for strengthening the cause of the emerging environmental jurisprudence. It is also important to note that this is an opportune moment to consider the possibility of a legal guardian at the scale of a river basin. This is because the Union government in India has embarked on a new mission to establish a River Basin Authority (“**RBA**”) for all river basins in the country through the proposed River Basin Management Bill, 2018. The draft bill envisages a two-tier system for the RBAs. The first tier will comprise the Governing Council, represented by the chief ministers and ministers in charge of water resources from each of the basin state, along with the chairman of the executive board (nominated by the Central Government). The second tier will be the entire Executive Board, headed by the chairman, a financial adviser, and state-level bureaucrats and experts in environment, water-planning, power, groundwater.

It is most appropriate that legal guardians, if such an entity is set up for river basins, should interact with the members of the Governing Council and engage to uphold the interests of the river. In this way, it can bypass the federal-jurisdictional ambiguity which has been discussed before. Leveraging this river basin level architecture for water governance, whenever that emerges, and engaging in dialogues with political representatives of the basin states, will allow the legal authority to participate directly in the decision-making process and at a scale of relative consequence. However, despite bypassing the subnational hurdle of a federal-jurisdictional ambiguity and making an attempt to consider a broader extent of riverine connectivity, the transnational hurdle remains as most of the river systems of North India cross international boundaries. In some cases, such as the Ganga and the Brahmaputra, India is poised as the middle riparian. Therefore, it is in the collective interest of the whole of South Asia if this emerging environmental jurisprudence were to gain a foothold in the entire region in a synchronised manner.

SHORT ARTICLES

BEACHED WASTE AND WASTED BEACHES: A CRITICAL ANALYSIS OF THE NEW SHIP RECYCLING LAW IN INDIA

**Meera Gopal*

ABSTRACT

India's share in the global shipbuilding market is a mere 0.03%¹. Yet, India boasts of the largest ship-breaking yard in Asia, situated in a 10km coastal stretch at Alang-Sosiya, Gujarat. A simple online search shows a coastline where several ships are moored on the beach. What is not visible through the satellites is that these ships are being broken on the beach using large metal-cutting torches by a migrant labor force with minimal or no safety equipment. The entire process is laden with the risk of accidents and also of discharge of toxic, polluting materials into the coastal environment. A recent documentary² by BBC Network sheds light on this highly unsafe and polluting industry that is being operated at Alang-Sosiya. Aptly named, "Breaking Bad: Uncovering the Oil Industry's Dirty Secret", it not only highlights the concerning levels of violation of environmental and occupational safety laws, but also the apathy of the Indian Government to do something concrete about it. This is despite the fact that the President of India has acceded to the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships³ and enacted the Ship Recycling Act in November 2019⁴. This article critically analyses the Act in light of the environmental and safety concerns revolving around the 'beaching method' and whether it actually meets

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¹ UNCTAD *Maritime Profile: India*, available at <https://unctadstat.unctad.org/countryprofile/MaritimeProfile/en-GB/356/index.html>, last seen on 03/03/2021.

² C. Foote, *Breaking Bad Uncovering The Oil Industry's Dirty Secret*, BBC News, available at <https://www.bbc.co.uk/news/extra/ao726ind7u/shipbreaking>, last seen on 03/03/2021.

³ The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, International Labor Organization, available at https://www.ilo.org/safework/info/publications/WCMS_154921/lang--en/index.htm, last seen on 03/03/2021.

⁴ This enactment only came into force on 27th October 2020, S. 3 vide notification No. S.O. 3838(E), dated 27th October 2020, see Gazette of India, Extraordinary, Part II, S. 3(ii).

its objectives of 'safe and environmentally sound ship recycling'. The article also looks at whether the law can be said to be in compliance with standards under international law and domestic environmental regulations.

I. INTRODUCTION

South Asia including India, Bangladesh, and Pakistan are well-preferred destinations for ship breaking. The method adopted here is known as 'beaching' which involves crashing an 'end-of-life' vessel⁵ ashore during high tide. When the tides recede, workers use gas torches to cut the ship up into segments, which are pulled up to the beach for further dismantling.⁶ Thus, the primary cutting of the ship takes place in the intertidal zone implying direct contact between the vessel during dismantling operations and the intertidal beach sediments and sea, leaving no scope for proper disposal of the toxic heavy metal wastes that would be discharged during the cutting process. This method is highly unsafe from the perspective of labor safety and coastal and marine environment.⁷ However, in terms of cost and labor, it turns out to be the cheapest. Weak enforcement of environmental regulation further makes this a cheaper option for shipowners who are looking to dispose of highly toxic old ships.⁸ India has been deploying the beaching method since the 1980s. However, there was a sharp increase in the number of ships which ended up on the beaches of Alang.⁹ A recent report commissioned by the Ministry of Environment,

⁵ A vessel that has reached the end of its operational life and is ready to be scrapped.

⁶ P. Poddar & S. Sood, *Revisiting the Shipbreaking Industry in India: Axing Out Environmental Damage, Labor Rights' Violation and Economic Myopia*, NUJS Law Review (2016), available at <http://nujlawreview.org/wp-content/uploads/2016/12/Paridhi-Poddar-Sarthak-Sood.pdf>, last seen on 05/04/2021.

⁷ *Ship Dismantling*, Basel Convention, available at <http://www.basel.int/Implementation/ShipDismantling/Overview/tabid/2762/Default.aspx>, last seen on 27/01/2021.

⁸ J. McElroy-Brown, *Ship Breaking at Alang, India: "What is the right thing for this place?"*, 3 (2006), available at https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/2630/McElroyBrown_project.pdf?sequence=1, last seen on 27/01/2021.

⁹ Ministry of Environment, Forest and Climate Change, Government of India, *Marine Environmental Monitoring and Verification for Compliance of CRZ Notification at Alang Ship Recycling Yard*, available at https://greentribunal.gov.in/sites/default/files/news_updates/MOEF%20&%20CC%20Report%20in%20Appeal%20No.%2049%20of%202018%20titled%20CONSERVATION%20ACTION%20TRUST%20&%20Ors.%20Vs%20U.O.I.pdf, last seen on 27/01/2021.

Forest and Climate Change in July 2020 clearly found high levels of heavy metals in samples taken from the shore and near shore locations at Alang.¹⁰ It is noteworthy that over the years several other methods of ship breaking have been developed across the world. The safest and most environmentally sound method is dry-docking wherein, an end-of-life vessel is sailed into a dock and the water pumped out, leaving the ship in a dry environment.¹¹ All processes occur in a contained zone, thus, greatly reducing the risk of environmental harm and safety concerns for the labor force. Other methods include slipway, berthing, airbag method, etc. Globally, except in some South Asian countries such as India and Bangladesh, countries have shifted to cleaner and safer methods of ship breaking/recycling. These include recycling facilities in Turkey, China, Europe, etc. Most of these facilities use the dry dock method or a version of berthing/slipway methods.¹²

II. INTERNATIONAL LAW OBLIGATIONS IN RELATION TO SHIP RECYCLING

1. The Basel Convention and Transboundary Movement of Hazardous Waste and their Disposal

Under the international law regime, transboundary movement of hazardous waste is covered under the Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (“**Basel Convention**”)¹³ which was adopted in March, 1989. The Basel Convention notes that the waste generator should carry out duties concerning the transport and disposal of hazardous wastes and other

¹⁰ Ibid.

¹¹ *Glossary*, NGO Ship Breaking Platform, available at <https://shipbreakingplatform.org/our-work/glossary/#:~:text=fully%20contained%20area,-Beaching,as%20practiced%20in%20South%20Asia.>, last seen on 05/04/2021.

¹² *The Problem*, NGO Shipbreaking Platform, available at <https://shipbreakingplatform.org/our-work/the-problem/>, last seen on 05/04/2021.

¹³ *Basel Convention On The Control Of Transboundary Movements Of Hazardous Wastes And Their Disposal Adopted By The Conference Of The Plenipotentiaries On 22 March, 1989* 1673 U.N.T.S. 126, May 1992, available at <http://archive.basel.int/text/con-e.pdf>, last seen on 27/01/2021.

wastes in a manner that is consistent with the protection of the environment, whatever the place of disposal.¹⁴

While ‘waste’ has been defined as ‘substances or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law’¹⁵, the Basel Convention itself does not define the term, ‘hazardous waste’ and simply refers to a list of substances that member states may notify to be hazardous waste.¹⁶

Likewise, ‘transboundary movement’ is defined as the movement of hazardous wastes from an area under one State’s jurisdiction to or through an area under another State’s jurisdiction or to or through any area which does not fall under the jurisdiction of any State.¹⁷ The Convention places high significance to ‘prior consent’ of States with regard to movement through or import of hazardous waste within its territory.¹⁸ Thus, no state can export hazardous waste, unless the importing state has consented to the same.

End-of-life ships have been the focus of discussion of the Basel Convention as these vessels are a source of a variety of hazardous materials such as asbestos, polychlorinated biphenyls, antifouling paints, waste oils, etc.¹⁹ Thus, during the seventh Conference of Parties (“COP”) in 2004²⁰, parties recognized that end-of-life ships may be covered under the Convention. The parties affirmed that elements of prior informed consent under the Basel Convention enable the minimization of the impact on human health and the environment associated with the dismantling of ships.²¹ The COP therefore invited the International Maritime Organization (“IMO”), as the United Nations specialized agency

¹⁴ Basel Convention, Para 4, Preamble.

¹⁵ Basel Convention, Article 2(1).

¹⁶ Basel Convention, Annex-I.

¹⁷ Basel Convention, Article 2(3).

¹⁸ Basel Convention, Article 6.

¹⁹ *Ship Dismantling*, Basel Convention, available at <http://www.basel.int/Implementation/ShipDismantling/Overview/tabid/2762/Default.aspx>, last seen on 27/01/2021.

²⁰ *Decision VII/26 Environmentally sound management of Ship Dismantling*, Basel Convention, available at <http://www.basel.int/Portals/4/Basel%20Convention/docs/meetings/cop/cop7/docs/33eRep.pdf#page=63>, last seen on 27/01/2021.

²¹ Ibid.

responsible for the safety, security of shipping as well as the prevention of marine and atmospheric pollution by ships, to “*continue work aimed at the establishment of mandatory requirements to ensure the environmentally sound management of ship dismantling*”²². The IMO was requested to establish mandatory reporting systems for ships destined for dismantling.

2. Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships

In 2009, the member states of the IMO adopted the International Convention for the Safe and Environmentally Sound Recycling of Ships at Hong Kong (“**Hong Kong Convention**”). This Convention not just covers the disposal of end-of-life vessels but also covers the design, construction, operation, and preparation of ships so as to facilitate safe and environmentally sound recycling without compromising the safety and operational efficiency of ships.²³ Thus, it is claimed that the Hong Kong Convention is essentially a ‘cradle to grave’ regulation of ships.

It requires States (both Flag States as well as the Port States) to “*prohibit and/or restrict the installation and use of hazardous materials listed in Appendix 1 to the Convention*” on ships flying their flags or “*whilst in their ports, shipyards, ship repair yards or offshore terminals*” respectively.²⁴ Another measure of control imposed under the convention relates to the mandate on maintaining an Inventory of Hazardous Material (“**IHM**”). However, this is to be in accordance with the requirements of the Flag State.²⁵

It is noteworthy that though the Hong Kong Convention was adopted in 2009, it has still not come into force. The Hong Kong Convention mandates that it come into force 24 months after the date on which 15 States, representing 40 percent of world merchant shipping by gross tonnage, have either signed it without reservation as to ratification, acceptance, or approval or have deposited instruments of ratification,

²² Ibid.

²³ *Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships*, 19 May 2009, SR/CONF/45 (2009), available at <http://www.basel.int/Portals/4/Basel%20Convention/docs/ships/HongKongConvention.pdf>, last seen on 27/01/2021.

²⁴ Hong Kong Convention, Annex, Regulation 4.

²⁵ Hong Kong Convention, Regulation 5.

acceptance, approval or accession with the Secretary-General.²⁶ As on date, only sixteen states, including India, have ratified the Hong Kong Convention and these states represent only about 30% of the gross tonnage of the world's merchant shipping.²⁷

A glaring gap in the Hong Kong Convention which has been pointed out by several experts, including the former UN Special Rapporteur on toxics and human rights²⁸, is that it completely failed to address the method of ship breaking, especially the environmentally harmful beaching method²⁹. Another weak link pointed out is the emphasis on flag state jurisdiction by making the flag state responsible for enforcement of the provisions of the Hong Kong Convention. This has led to a considerable watering down of the effectiveness of the provisions of the Hong Kong Convention. Thus, even if large ship-owning countries such as Norway, Netherlands, and Denmark do have stringent measures to ensure that their ships are not exported to South Asia for breaking, the ship owners have found their way around the same.³⁰ This has been achieved through the very common practice in maritime law known as the 'Flag of Convenience' ("**FOC**")³¹ under which ships often fly the flag of countries that have open registries (also referred to as FOC Countries), which enables ship-owners to avoid restrictive regulatory regimes by changing registration to those FOC countries that have open registries and minimal regulation.³² The Hong

²⁶ Ibid, Art. 17.

²⁷ *India accession brings ship recycling convention a step closer to entry into force*, International Maritime Organization, available at <https://www.imo.org/en/MediaCentre/PressBriefings/Pages/31-India-HKC.aspx>, last seen on 27/01/2021.

²⁸ *Report of the Special Rapporteur on the Adverse Effects of the Illicit Movement and Dumping of Toxic and Dangerous Products and Wastes on the Enjoyment of Human Rights*, U.N. Human Rights Council, Sess. 12, U.N. Document A/HRC/12/26, (15/07/2009) available at <https://digitallibrary.un.org/record/661231?ln=en>.

²⁹ V. Rossi, *The Dismantling of End-of-Life Ships: The Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ships*, Italian Yearbook of International Law (2010), available at http://www.sidi-isil.org/?page_id=1971, last seen on 27/01/2021.

³⁰ S. Bhattacharjee, *From Basel to Hong Kong: International Environmental Regulation of Ship-Recycling Takes One Step Forward and Two Steps Back*, 1(2) Trade, Law & Development 193 (2009), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1760459, last seen on 27/01/2021.

³¹ A flag of convenience ship is the one that flies the flag of a country other than the country of ownership. The International Transport Workers' Federation (ITWF) has identified thirty-eight FOC countries, available at <https://www.itfglobal.org/en/sector/seafarers/flags-of-convenience>, last seen on 27/01/2021.

³² *Supra* 31, at 203.

Kong Convention has also been criticized for bringing in a visible imbalance by protecting the rights of the shipowners who have minimal responsibilities and shifting a large part of the responsibility on the ship recycling facilities to ensure safe and environmentally sound ship recycling.³³

3. The European Union Ship Recycling Regulations

In 2013, noting the deficiencies in the Hong Kong Convention, the European Parliament and the Council of the European Union adopted the Ship Recycling Regulation (“EU SRR”)³⁴ which contains more stringent standards vis-à-vis safety and environmental requirements — the beaching method is strictly prohibited and requirements related to downstream toxic waste management as well as labor rights are included.³⁵ In essence, the EU SRR requires that vessels registered under the flag of an European Union (“EU”) Member State be recycled in a safe and environmentally sound manner. For this purpose, the European Commission maintains a list of facilities worldwide that operate in line with the standards for ship recycling set by the EU SRR.³⁶ To be included in the List, any ship recycling facility, irrespective of its location, has to comply with a number of safety and environmental requirements. This includes operating from built structures (essentially prohibiting beaching operations); establishment of monitoring systems for preventing, reducing, minimizing health risks and environmental impacts from the ship recycling.³⁷ For facilities located in

³³ K. P. Jain, *Critical Analysis of the Hong Kong International Convention on Ship Recycling*, 7 (10) International Journal of Environmental, Chemical, Ecological, Geological and Geophysical Engineering (2013), available at <https://publications.waset.org/17105/critical-analysis-of-the-hong-kong-international-convention-on-ship-recycling>, last seen on 27/01/2021.

³⁴ *Regulation (EU) No 1257/2013 of the European Parliament and of the Council of 20 November 2013 on ship recycling and amending Regulation (EC) No 1013/2006 and Directive 2009/16/EC*, available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02013R1257-20180704&from=EN>, last seen on 07/04/2021.

³⁵ *EU Ship Recycling Regulation*, NGO Ship Breaking Platform, available at <https://shipbreakingplatform.org/issues-of-interest/the-law/eu-srr/>, last seen on 27/01/2021.

³⁶ *Shipbreaking: Updated list of European ship recycling facilities to include seven new yards*, European Union, available at https://ec.europa.eu/info/news/shipbreaking-updated-list-european-ship-recycling-facilities-include-seven-new-yards-2020-jan-23_en, last seen on 07/04/2021.

³⁷ *Supra* 35, Art. 13.

the EU, it is for the competent national authorities in the concerned Member States to check that all the relevant conditions are met, and to then inform the Commission that the facility in question should be listed. Ship recycling facilities located in third countries and intending to recycle ships flying a flag of a Member State have to submit an application to the Commission for inclusion in the European List. Indian ship recyclers have to move away from the beach or move to safer methods of breaking in order to be eligible to be certified by the EU under its regulations. However, it may be noted that similar to the case of the Hong Kong Convention, the EU SRR also suffers from the flag state jurisdiction fallacy, in that, most of the EU owned ships convert to a flag of convenience during its last voyage thus, by passing the stringent conditions under the SRR. This becomes significant in light of the fact that European ship owners own 35% of the world fleet.³⁸

III. BACKGROUND TO THE ENACTMENT OF THE RECYCLING OF SHIPS ACT, 2019

In a landmark order³⁹ in 2007, the Supreme Court of India had directed the Government of India to form an Expert Committee to report on the adequacy of the infrastructure as existing then in Alang and to suggest remedial measures to upgrade the infrastructural facilities. Pursuant to the said order, the Expert Committee gave several recommendations which were accepted by the Supreme Court, while directing that the same be formulated into a comprehensive Code.⁴⁰ The Supreme Court, while noting with concern the situation at Alang, did not discuss the methodology of ship recycling in these decisions. Thus, there was no discussion on the efficacy of the beaching method or a discussion on the need to move to better practices.

³⁸ Supra 37.

³⁹ Order dated 17th February 2006, *Research Foundation for Science Technology Natural Resource Policy v. Union of India & Anr.*, (2005) (10) SCC 510. The case was filed concerning the breaking of the French ship, *Clemenceau* at Alang. Even though the said ship was sent back to France, the Supreme Court took note of the dangerous and hazardous conditions of the ship breaking yards in Alang.

⁴⁰ Order dated 6th September 2007 in *Research Foundation for Science Technology Natural Resource Policy v. Union of India & Anr.* (2007) 8 SCC 583.

In 2013, the Ministry of Steel, Government of India notified the Ship Breaking Code (“**the Code**”). The Code consisting of eight chapters, dealt with procedures for obtaining anchorage permission, beaching permissions, recycling permissions, mandatory conditions regarding environmental safeguards, and occupational safety and health. The Code was thus formulated on the basic presumption that the ships in India are to be broken/recycled by adopting the beaching method and envisages ‘environmentally safe and sound’ beaching operations in ship-breaking yards in India. This Code was revised in 2017 with the objective of addressing concerns in relation to the responsibility of storage and disposal of hazardous substances on the ship recycler.⁴¹ In terms of effectiveness, the compliance of mandatory provisions of the Code remained highly questionable at the Alang Shipyards. In fact, as per publicly available reports, it is clear that even these conditions which aim to minimize the impact of the beaching operations are not being complied with satisfactorily.⁴²

In 2019, India acceded to the Hong Kong Convention and enacted the Recycling of Ships Act, 2019 (“**the Act**”) for providing regulation of ship recycling by setting standards and laying down the statutory mechanism for enforcement of such standards.⁴³ The preamble of the Act notes the need to address the gaps in the Ship Breaking Code of 2013 to bring the legal position in line with India’s obligations under the Hong Kong Convention.⁴⁴ But, again, despite constantly rising global concerns regarding ship breaking on the beach, the Act does not make any reference to the same, and the status quo remains in this regard.

⁴¹ DTE Staff, *Centre proposes amendments to Ship breaking Code 2013 for safe recycling*, Down to Earth, (17/06/2016), available at <https://www.downtoearth.org.in/news/environment/centre-proposes-amendments-to-shipbreaking-code-2013-for-safe-recycling-54438>, last seen on 27/01/2021.

⁴² *Report of the European Commission Directorate-General for the Environment of the Priya Blue Ship Recycling Facility in India*, European Union, available at <http://ec.europa.eu/environment/waste/ships/pdf/Site%20Inspection%20Report%20Application%20003.pdf>, last seen on 12/04/2021.

⁴³ The Recycling of Ships Act, 2019.

⁴⁴ The Recycling of Ships Act, Preamble.

IV. SALIENT PROVISIONS OF THE ACT

The Act follows the same methodology as the earlier Code with regard to ship breaking, in that it has provisions in relation to the responsibilities of the ship owners, ship recyclers, and also with regard to the preparation of ship recycling plans for each vessel that is received at Alang for scrapping. Thus, the Act states that it is applicable⁴⁵ to:

- i. any new or existing ship which is registered in India,
- ii. ships entering a port or terminal in India, or the territorial waters of India,
- iii. any warship, or other ship owned and operated by an administration and used on government non-commercial service, and
- iv. ship recycling facilities operating in India or areas coming within the exclusive territorial jurisdiction of India

‘Ship recycling’ has been defined in the following terms:

the activity of dismantling of a ship at a ship recycling facility in order to recover components and materials for reprocessing and reuse, while taking care of hazardous and other materials and includes associated operations such as storage, treatment of components and materials on-site, but not their further processing or disposal in separate facilities⁴⁶

The definition refers to the various components of ship recycling within the ship recycling facility. Thus, it does not cover the further processing of hazardous materials or their disposal. Besides, the Act has not included the method of ship recycling in the definition clause. This follows the methodology adopted in the erstwhile Code, and is a critical gap in the law, especially if the aim is to achieve safe and environmentally sound ship breaking.

The Act is a framework legislation comprising ten chapters dealing with various aspects of ship recycling including identification, powers, and responsibilities of authorities⁴⁷, the requirement of ships⁴⁸ (laying down the

⁴⁵ S. 1(3), The Recycling of Ships Act, 2019.

⁴⁶ S. 2(n), The Recycling of Ships Act, 2019.

⁴⁷ Chapters III & VII, The Recycling of Ships Act, 2019.

⁴⁸ Chapter IV, The Recycling of Ships Act, 2019.

responsibilities of the shipowners), ship recycling facilities⁴⁹ (dealing with responsibilities of ship recyclers in setting up and maintaining such facilities), process of recycling⁵⁰ and reporting⁵¹. The Act also provides for penal action in case of violation or non-compliance of the provisions of the Act which may lead to imprisonment up to three months and/or fine up to Rs. 15 lakhs. It also provides for an appeal process against the decisions made under the Act before the national authority⁵². The Act identifies the following stakeholders for its effective enforcement and implementation — a national authority⁵³, concerned authority⁵⁴, ship owners and ship recyclers.

V. RESPONSIBILITIES OF THE SHIP OWNER

The Act prohibits and restricts the use of hazardous material on ships⁵⁵ and requires ship owners to obtain a certificate of inventory of hazardous materials specific to each ship. This is to be maintained and updated throughout the operational life of the ship.⁵⁶

When a ship is brought to a recycling facility, the owner must first obtain a 'ready for recycling' certificate from the National Authority which will be issued after a survey of the vessel.⁵⁷ During the process of ship recycling, the Act imposes a further obligation on the ship owner to ensure that advance intimation is given to the Maritime Rescue Coordination Centre and the competent agencies regarding date of arrival and to ensure that the vessel is cargo, fuel oil, and waste-free.⁵⁸

⁴⁹ Chapter V, The Recycling of Ships Act, 2019.

⁵⁰ Chapter VI, The Recycling of Ships Act, 2019.

⁵¹ Chapter VII, The Recycling of Ships Act, 2019.

⁵² S. 25, The Recycling of Ships Act, 2019.

⁵³ The National Authority is to be notified under Section 3 of the Act. On 15th October 2020, the Director-General of Shipping has been notified as the National Authority. The National Authority is to be set up in Gandhinagar, Gujarat. See PIB Press Release here: <https://pib.gov.in/PressReleasePage.aspx?PRID=1664703>.

⁵⁴ Though not notified under the Act till date, this would probably include the Maritime Board, Coast Guard, and the State Pollution Control Board.

⁵⁵ S. 6, The Recycling of Ships Act, 2019.

⁵⁶ S. 8, The Recycling of Ships Act, 2019.

⁵⁷ S. 16, The Recycling of Ships Act, 2019.

⁵⁸ S. 19, The Recycling of Ships Act, 2019.

VI. RESPONSIBILITIES OF THE SHIP RECYCLER

The Act imposes a fiduciary responsibility on ship recyclers to ensure the safe recycling of end-of-life vessels. Thus, the Act requires each ship recycler to obtain prior authorization from the Competent Authority for operating a ship recycling facility.⁵⁹ Such an authorization can be obtained only upon furnishing a satisfactory 'ship recycling facility management plan'. The ship recycler is also under a statutory obligation to maintain adequate measures for emergency preparedness and the safety, health, training, and welfare of workers in his ship recycling facility.⁶⁰

Chapter V of the Act is critical as it entails the statutory mandates in relation to the process of ship recycling. It may be noted herein that there is no mention of the methodology to be adopted by the ship recycler while undertaking such an activity. The provisions under this Chapter address the process of ship breaking and involves detailed procedures including grant of ship recycling permission⁶¹, and also the obligation of the ship recycler to ensure 'safe and environmentally sound' management of hazardous materials⁶², and to take 'necessary measures' for protection of the environment⁶³. The Act mandates that in case of an oil spill in the facility, the recycler shall be liable to pay 'environmental damages' and 'cleanup operation compensation'⁶⁴ There is no explanation on how such damages or compensation are to be quantified.

VII. ANALYSIS

A bare reading of the law clearly points out that it envisages a mere legal framework. Section 42 of the Act does give wide powers to the Central Government to make rules on a wide range of matters including, *inter-alia*, duties of the competent authority, requirements of surveys, verification, and assessment of environmental damages and compensation. Section 43

⁵⁹ Ss. 11 & 12, The Recycling of Ships Act, 2019.

⁶⁰ Ss. 14 & 15, The Recycling of Ships Act, 2019.

⁶¹ S. 20, The Recycling of Ships Act, 2019.

⁶² S. 21, The Recycling of Ships Act, 2019.

⁶³ S. 22, The Recycling of Ships Act, 2019.

⁶⁴ *Ibid.*

also grants power to make regulations in addition to the rule-making powers of the Central Government.

The Act leaves warships, naval ships, and government-owned ships and ships having less than 500 gross tonnages outside the ambit of the statutory requirements under Chapter III⁶⁵ with respect to the prohibition of installation and use of hazardous materials, surveys, and inventorization of hazardous materials onboard such vessels. There seems to be no rational basis for such an exemption.

What is most conspicuously missing is that the Act does not define what method is to be followed, thus leaving the gap wide open to interpretation. This is clear from the above-referred definition of the term 'ship recycling'⁶⁶. This leaves the legislative gap (which was also a flaw in the Ship Breaking Code) still unaddressed. The growing literature on the problems associated with the beaching method (both environmental and safety concerns) of ship breaking ought to have been considered by the lawmakers.

The Act does not expressly repeal or supersede the Ship Breaking Code, 2013. However, it may be noted that Section 41 of the Act categorically states that the provisions of the Act shall be in addition to and not in derogation of any other law in force. Thus, it can be argued that the provisions of the Act are in addition to the mandatory provisions and procedures entailed in the Code. It would be highly problematic if the Act does repeal/supersede the Code as it was much more detailed in terms of the requirements with relation to anchoring, beaching, and other steps involved before the ship being brought into the ship recycling facility which is not addressed in the new law.⁶⁷

The provision under Section 41 of the Act is also indicative of the Act's deference to existing environmental laws and regulations in force. In this regard, the Central Government has issued successive regulations since

⁶⁵ S. 5, The Recycling of Ships Act, 2019. This is also in line with the Hong Kong Convention as well as the EU SRR.

⁶⁶ *Supra* 47.

⁶⁷ Chapters III and IV of the Ship Breaking Code, 2013, which has detailed requirements for ship owners to comply with before entering the ship recycling facility.

1991 for the protection of the coastal environment under the Environment (Protection) Act, 1986.⁶⁸ An argument thus can be made that the provisions of the Act of 2019 must be given an interpretation that is in line with the strictures under these regulations. The Coastal Regulation Zone (“CRZ”) Notification, 2011 as well as 2019, are essentially zoning regulations having strict provisions relating to the prohibited and regulated activities in each zone.⁶⁹ The inter-tidal zone where the beaching process is undertaken is declared as CRZ 1-B under the Notification.⁷⁰ The provisions of the Notification indicate that ship-breaking activities cannot be permitted in the CRZ 1B area.⁷¹ Thus, the beaching method is impermissible under the Notification. However, this seems to have been completely ignored or neglected by the Government of India and the Gujarat Maritime Board who are planning to further expand the ship-breaking activities on the beach at Alang.⁷²

In terms of compliance with international legal obligations, the Act does follow the Hong Kong standards, having even stricter provisions in relation to the responsibilities of a shipowner. However, it is yet to be seen if it meets the more stringent standards under the Basel Convention in relation to the strict standards of transboundary movement of hazardous materials.

VIII. CONCLUSION

The Government of India had proclaimed that, *“accession to Hong Kong Convention by India and enactment of Recycling of Ships Act, 2019 will raise the profile*

⁶⁸ Coastal Regulation Zone Notification was initially issued in 1991, then it was updated in 2011, and 2019. The 2019 Notification is under legal challenge before several High Courts of India (Goa, Chennai, etc.) on the ground of being highly diluted from its earlier versions. For the purpose of this discussion, the author would be referring to the provisions of the 2011 Notification.

⁶⁹ Para 3, 4, & 8 of the Coastal Regulation Zone Notification of 2011.

⁷⁰ Para 7, Coastal Regulation Zone Notification of 2011.

⁷¹ Para 8 I (ii), Coastal Regulation Zone Notification of 2011 deals with the permissible activities in CRZ 1-B area. The list enumerated therein does not include shipbreaking and thus an argument can be made that ship breaking activities are not permissible in the inter-tidal zone. The Supreme Court of India has consistently held that the provisions of the CRZ Notification must be given strict interpretation.

⁷²The Gujarat Maritime Board obtained an Environmental and CRZ Clearance under the EIA Notification, 2006 and CRZ Notification, 2011, respectively, in November 2016 for upgradation of existing infrastructure and adding fifteen new plots at Alang.

of our ship recycling industry as being environmentally friendly and safety conscious and would go a long way in consolidating India's position as the market leader."⁷³ Such a proclamation seems misplaced in light of the gaps in the Act which can exacerbate the already deteriorating conditions at Alang. This has to be seen in the light of the fact that in November 2016, the Central Government permitted the Gujarat Maritime Board to expand the existing ship-breaking facilities at Alang under a Japan International Cooperation Agency sponsored project.⁷⁴

It is interesting to consider the value being created from the ship breaking activity in India. Steel recycled from ship-breaking activity contributes to only around 1.5% of India's total steel requirement.⁷⁵ However, when it comes to global recycling of ships, India's contribution is around 27.23%, only behind Bangladesh which has overtaken India in the last few years as the world's most favored destination for recycling end-of-life ships. This presents the dilemma which still persists and remains unaddressed. It has been opined that the growth of ship-breaking operations in India, along with its neighboring countries illustrated the contradictory impulses of trade and economic globalization and presented an acute dilemma for policymakers. On one end, the ship-recycling industry provides valuable materials like steel and is a source of generating employment. At the same time, there is a legitimate risk of long-term and irreversible harm to the coastal and marine environment and the health of the laborers.⁷⁶ It has also been opined that this is also the reason why India and other ship-breaking states do not have the political will to adopt more stringent standards under national law. Thus, it has been advocated that international supervision is

⁷³ Press Information Bureau, Government of India, Ministry of Ports, Shipping and Waterways, *The Recycling of Ships Bill, 2019 becomes an Act after receiving the assent of President of India* (Dec. 17, 2019), available at <https://pib.gov.in/Pressreleaseshare.aspx?PRID=1596730>, last seen on 27/01/2021.

⁷⁴ Supra 72

⁷⁵ G Seetharaman & P. Katiyar, *Can a new ship-recycling law help India regain its status as the world's top dismantler of vessels?*, *The Economic Times* (22/12/2019), available at <https://economictimes.indiatimes.com/industry/transportation/shipping/-transport/can-a-new-ship-recycling-law-help-india-regain-its-status-as-the-worlds-top-dismantler-of-vessels/articleshow/72918468.cms?from=mdr>, last seen on 27/01/2021.

⁷⁶ S. Bhattacharjee, *From Basel to Hong Kong: International Environmental Regulation of Ship-Recycling Takes One Step Forward and Two Steps Back* 1(2) *Trade, Law & Development* 193 (2009), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1760459, last seen on 27/01/2021.

required for balancing out this dilemma.⁷⁷ But, today this must be addressed in light of the latest statistics on the contribution of the ship-breaking industry to the steel industry, vis-à-vis high risk to the environment and workers' safety. Such a situation warrants the application of the cardinal principle of environmental law — the precautionary principle. The principle clearly mandates that where there is a serious threat of irreversible damage, actions should be taken that err on the side of precaution rather than increasing risk.⁷⁸ In this regard, it would be befitting to refer to the observation of the Supreme Court of India surrounding the principle, and where the court held that environment protection should not only aim at protecting health, property and economic interest but also protect the environment for its own sake.⁷⁹ In light of this principle, it is clear that the Government ought to move away from such unsustainable and unsafe practices towards safer options which are already being followed in several other countries. However, there has been a clear failure on part of the Government to do so, and unfortunately, what is being practiced and what is now being allowed for further expansion is nowhere close to being 'Safe and Environmentally Sound'. It is imperative that India take a strong stand on moving away from the beach, concerning ship recycling. One can only hope that the Central Government takes effective measures in this regard by making stringent rules and regulations under the powers granted under the Act, clearly emphasizing the need for upgrading the infrastructure at Alang by moving away from the beach.

⁷⁷ Ibid.

⁷⁸ UNEP, *Environmental Rule of Law: First Global Report*, (2019).

⁷⁹ *A.P. Pollution Control Board v. Prof. M.V. Nayudu*, (1999) 2 SCC 718.

FAT PROMISES AND LEAN PERFORMANCES: WHY IS ENVIRONMENTAL IMPACT ASSESSMENT UNDERPERFORMING IN INDIA?

**Urmila Jha Thakur*

ABSTRACT

The United Nations Environment Program (“UNEP”) published the ‘Environmental Rule of Law: First Global Report’ in 2019. This report clearly identified the lack of compliance of environmental laws as the leading cause for environmental threats not being curtailed in practice. The aim of this article is to reflect on this ‘implementation deficit’ in India using the lens of Environmental Impact Assessment (“EIA”). The paper identifies eight key reasons which have led to the non-compliance of environmental laws in India. These include: a) lack of internal motivation within the country for complying; b) standard approach applied generically to all; c) copy paste culture amongst the stakeholders; d) lack of capacity and power imbalance; e) weakening of the EIA legislation; f) compartmentalizing EIA within technical disciplines; g) lack of coordinated effort amongst stakeholders; h) and finally, unwillingness to learn from experience. Accordingly, three specific recommendations have been put forward for India, especially within the context of EIA. First, a neutral committee should be set up who can play more of a supporting role, rather than a policing role to offer advice with regards to EIA. Secondly, EIA procedures need to be integrated with proactive management practices to facilitate an iterative process. Finally, the education system in the country needs to adopt a holistic and interdisciplinary approach in providing knowledge capacity within the subject area and thereby, influence practice.

I. INTRODUCTION

With environmental challenges increasing at an alarming rate, enactment of environmental laws has seen a dramatic increase of thirty-eight-fold

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since 1972.¹ Even then, environmental threats such as high level of pollution, declining biodiversity, and climate change continue to persist and pose severe threats.² The UNEP published the ‘Environmental Rule of Law: First Global Report’ in 2019 (“**UNEP Report**”). This report clearly identified the lack of compliance of environmental laws as the leading cause for environmental threats not being curtailed in practice. The report has furthermore cited several reasons for this ‘implementation deficit’. Examples of these reasons provided include, lack of clarity of the environmental laws, weak political will, lack of resources, and imported laws, which have not been tailored to the domestic country’s context. The UNEP Report urges countries to research on appropriate approaches in enhancing environmental compliance.³ However, in order to do so there is a need to establish the main causes which are diluting environmental compliance. Accordingly, the aim of this article is to reflect on this ‘implementation deficit’ in India using the lens of EIA.

The rationale for using the lens of EIA is manifold. *Firstly*, 187 countries as of 2019 had legal instruments requiring the enforcement of EIA.⁴ This makes EIA act as a common denominator for comparing environmental considerations within the decision-making process across nations, worldwide. *Secondly*, EIA has been around as a mandatory requirement for more than two decades in most countries, including India.⁵ As a result, there is substantial experience with the EIA practice, both in the developing and the developed world. Furthermore, the EIA regime is

¹ *Environmental Rule of Law: First Global Report*, U.N. Environment Programme, (2019) available at <https://www.unep.org/resources/assessment/environmental-rule-law-first-global-report#:~:text=NAIROBI%E2%80%942024%20January%202019%20%E2%80%93%20The,over%20the%20last%20four%20decades>, last seen on 15/02/2021.

² *9 Out of 10 People Worldwide Breathe Polluted Air, but More Countries are Taking Action*, World Health Organization (02/05/2018), available at <https://www.who.int/news/item/02-05-2018-9-out-of-10-people-worldwide-breathe-polluted-air-but-more-countries-are-taking-action>, last seen on 15/02/2021.

³ *Supra* 1.

⁴ *Ibid*.

⁵ U. J. Thakur & F. Khosravi, *Beyond 25 Years of EIA in India: Retrospection and Way Forward*, 87 *Environmental Impact Assessment Review* (2021); U. J. Thakur & T. B. Fischer, *25 Years of the UK EIA System: Strengths, Weaknesses, Opportunities and Threats*, 61 *Environmental Impact Assessment Review*, 19-26 (2016); J. Arts et al., *The Effectiveness of EI as an Instrument for Environmental Governance: Reflecting on 25 Years of EIA Practice in the Netherlands and the UK*, 14 *Journal of Environmental Assessment Policy and Management* (2012).

currently undergoing reformations in India through the EIA Draft Notification of 2020 (“**Draft Notification, 2020**”).⁶ This has raised pertinent questions with regards to its effectiveness, which makes it an ideal candidate for exploring the causes behind the lean performances of environmental laws in India.

This commentary draws on the experience of the author conducting EIA related research for nearly two decades. This involves several field visits, interviews with stakeholders, desktop surveys, literature reviews and more recently, participation in debates and discussions with regards to the latest Draft Notification, 2020⁷, on various platforms. In the course of exploring the ‘implementation deficit’ of EIA in India, the paper is divided into three sections. First, an overview of EIA as a process is presented, followed by a section which explores the causes of implementation deficit within the context of EIA in India. In the third section, a wider discussion is presented alongside possible solutions and finally, conclusions are drawn.

II. ENVIRONMENTAL IMPACT ASSESSMENT: AN OVERVIEW

EIA is a globally accepted tool, which supports decision-making by incorporation of environmental considerations and values within the planning process of proposed projects.⁸ EIA was made mandatory in India through the enactment of the EIA Notification in 1994 (“**1994 Notification**”), which was an amendment to the existing environmental legislation (Environmental Protection Act, 1986). Based on the 1994 Notification, all projects listed in its Schedule I, are required to seek permission for development on the basis of an EIA. This process is known as Environmental Clearance (“**EC**”) in India⁹ and it defines the role of the Ministry of Environment, Forest and Climate Change (“**MoEFCC**”) within the EIA process. The notification has undergone several changes

⁶ Ministry of Environment, Forest and Climate Change, *Notification*, available at http://parivesh.nic.in/writereaddata/Draft_EIA_2020.pdf, last seen on 15/02/2021.

⁷ Ibid.

⁸ R.K. Morgan, *Environmental Impact Assessment: The State Of The Art*, 30(1) Impact Assessment and Project Appraisal, 5-14 (2012); Arts et al., supra 5.

⁹ U. J. Thakur & A. Rajvanshi, *Strategic Environmental Assessment In India: Trends and Prospects*, Chapter 25, in *International Handbook of Strategic Environmental Assessment* (Edward Elgar, 2020).

and currently, the EIA Notification, 2006¹⁰ (“**2006 Notification**”) is operational. EIA consists of several stages which involve preparing the EIA report; considering the public consultation procedure; reviewing the EIA documentation and decision-making; and finally, conducting the EIA follow-up or post-project monitoring.¹¹ It should be noted that the EIA Notification is further supported by other environmental legislations which existed prior to its enactment. Examples include, the Water (Prevention and Control of Pollution) Act 1974, the Water (Prevention and Control) Cess Act 1977, and the Air (Prevention and Control of Pollution) Act 1981.¹² The Central Pollution Control Board (“**CPCB**”) along with its subsidiary State Pollution Control Boards (“**SPCBs**”) is responsible for the compliance of these laws, which complements the MoEFCC’s efforts in delivering environmental protection.

Over the years, the EIA process in India has been reviewed and criticized for suffering from various weaknesses which have diluted its overall effectiveness.¹³ However, the purpose of this commentary is not to review the EIA process but to focus on the implementation or lack of compliance of the measures within this umbrella framework and tease out the reasons for such non-compliance.

III. EXPLORING THE FACTORS LEADING TO ‘IMPLEMENTATION DEFICIT’ WITHIN EIA IN INDIA

The persistence of weak compliance for environmental laws in India has already been established in literature.¹⁴ Furthermore, lack of compliance has been identified as an essential impediment, which has diluted the

¹⁰ Ministry of Environment and Forests, Government of India, *Notification 2006*, available at <https://parivesh.nic.in/writereaddata/ENV/EnvironmentalClearance-General/18.pdf>, last seen on 15/02/2021.

¹¹ A.K.A. Rathi, *Evaluation Of Project-Level Environmental Impact Assessment and SWOT Analysis Of EIA Process In India*, 67 *Environmental Impact Assessment Review*, 31-39 (2017), available at <https://doi.org/10.1016/j.eiar.2017.08.004>, last seen on 15/02/2021; R. Paliwal, *EIA Practice In India and Its Evaluation Using SWOT Analysis*, 26 *Environmental Impact Assessment Review*, 492-510 (2006), available at <https://doi.org/10.1016/j.eiar.2006.01.004>, last seen on 15/02/2021; Supra 10.

¹² W. Banham & D. Brew, *Environmental Assessment: A Review of The Development of Environmental Impact Assessment In India*, 11 (3) *Project Appraisal*, 195–202 (1996).

¹³ Thakur & Khosravi, supra 5; Rathi, supra 11; Paliwal, supra 11.

¹⁴ K. Priyadarshini & O. K. Gupta, *Compliance to Environmental Regulations: The Indian Context*, 2(1) *International Journal of Business and Economics*, 9-26 (2003).

overall effectiveness of EIA in India and has been detrimental to EIA's role in delivering environmental protection.¹⁵ The recent Vizag gas leak bears testimony to the blatant non-compliance of EIA requirements.¹⁶ The following paragraphs explore and tease out the reasons for weak environmental compliance in India, especially in the context of EIA.

1. Lack of motivation to comply:

EIA in India was introduced largely owing to the requirements of foreign donor agencies. EIA, since its early years had been perceived to be a facilitation tool, which was seen as a means to get funding.¹⁷ This perception shaped the attitude of developers profoundly whereby even now, EIA is seen as a means to an end rather than a tool for protecting the environment. In more recent times, legal compliance is what is mainly initiating EIAs. Environmental laws which act as the 'stick' in ensuring compliance have an intrinsic impediment as they are based on coercion rather than motivation. However, the 'command and control' method is not receiving the required effects as the penalties for non-compliance is perceived to be insignificant. Furthermore, due to lack of capacity of regulators to monitor, non-compliance is not easy to detect.¹⁸ Overall, EIA is based on regulations which can neither be monitored nor effectively penalize in cases of violation, making the legal requirements toothless. This setting implies that the motivation for conducting EIAs is externally implied on the developers and that too is not backed up effectively, for implementation.

¹⁵ U. J. Thakur, T.B. Fischer and A. Rajvanshi, *Reviewing Design Stage Of Environmental Impact Assessment Follow-Up: Looking At The Open Cast Coal Mines In India*, 27 (1) Impact Assessment and Project Appraisal, 33–44 (2009); R. Paliwal and L. Srivastava, *Adequacy of the follow-up process in India and barriers to its effective implementation*, 55 (2) Journal of Environmental Planning and Management, 191–210 (2012).

¹⁶ *Vizag Gas Leak: LG Polymers Operated Without Appropriate Environmental Clearance*, The WIRE (08/05/2020), available at <https://thewire.in/government/vizag-styrene-gas-leak-lg-polymers-environmental-clearance>, last seen on 17/04/2021.

¹⁷ I. N. Sinha, *A Framework of EIA for Environmental Sustainability*, ENVIS Monographs No. 8, Dhanbad, India: ENVIS Centre on Mining Environment, Indian School of Mines, (2001).

¹⁸ Thakur & Khosravi, supra 5; Supra 14.

2. One size fits all approach:

India is a land of diversity and yet, the environmental standards and approaches adopted seem to be standardized to fit all sizes and shapes. For example, when an EC letter is accorded by the MoEFCC, it mandates conditions that become legally binding on the proponent. In investigating compliance conditions for open cast coal mines, it was observed by Jha-Thakur, that the requirement of maintaining over burden dumps was specified to be 28 degrees for all open cast coal mines.¹⁹ However, during field visits, it was observed that in one of the mines, which were located in hilly terrain, the dumps were constructed steeper. These dumps were also engaging with better technology of using toe-walls to maintain dump stability. The reason for not meeting the stipulated requirement was due to the hilly terrain, which did not provide the proponent enough space to have flatter dumps. Interestingly the compliance officers from the regional offices of the MoEFCC were aware of this non-compliance. Nevertheless, both parties, rather than following the procedure for requesting to change the condition in the clearance letter, continued business as usual. The regional representatives of the Ministry informally agreed on the change which technically implied that the proponent did not comply with the conditions specified. This was because the parties (both proponent and the regional regulators), felt that this would procedurally be complicated and cost time.²⁰ Hence, the procedural rigidity of the system itself facilitated non-compliance.

3. Copy paste culture:

The stipulated conditions categorized as ‘general’ and ‘specific’ based on which EC is accorded by the MoEFCC have been often cited to be copy pasted by the regulating authority rather than adjusted to reflect the bespoke requirements of the project.²¹ In 2008, an EIA report was found

¹⁹ U. J. Thakur, Environmental, *Impact Assessment Follow-Up in India: Exploring Regional Variation*, 13 (3) *Journal of Environmental Assessment Policy and Management*, 435–458 (2011).

²⁰ Ibid.

²¹ Thakur & Khosravi, supra 5; Rathi, supra 11; Paliwal & Srivastava, supra 15.

to be plagiarizing from an EIA report of a bauxite mine in Russia.²² This point was further raised on discussion platforms recently, while exploring the relevance of the Draft Notification, 2020, whereby highway expressway projects were found to be copy pasting materials in their EIA report.²³ This problem is further enhanced owing to the lack of good quality baseline data.²⁴ If the fundamentals are plagiarized, then environmental legislation and its compliance cannot deliver environmental protection. This copy paste practice reflects apathy and shoddy work culture, which unfortunately has been exhibited by both, the regulating agencies as well as the proponents, and defies the very purpose of the legal requirements.

4. Lack of capacity and power imbalance:

This is perhaps one of the most critical weaknesses of the legal system, which undermines its compliance. Based on the 2006 Notification, the regulating agencies are required to visit the company sites to check compliance. However, the regional offices of the MoEFCC are severely understaffed.²⁵ Compliance officers from the regional offices are hence compelled to set targets with regards to the number of industries they can check per year. Following this approach, the officers can visit the same company for compliance checking once in 3 to 4 years.²⁶ The situation has remained the same over the years and is further curtailed owing to the fact that the power imbalance between the regulating agency and the proponents is huge, making external compliance checking tokenistic. More disturbingly, there is threat for environmental professionals from powerful lobbying.²⁷ As a matter of fact, the alarming state of security for environmental supporters is reflected across the world as the UNEP

²² A. Majumder, S. Balwani and S. Parik, *New Notice Latest in 20-Year Dilution to Green Law*, Article 14, available at <https://www.article-14.com/post/new-notification-latest-in-20-year-dilution-to-environmental-protection>, last seen on 14/02/2021.

²³ *Environmental Regulation in India: EIA and Beyond*, Observer Research Foundation, available at <https://www.orfonline.org/research/environmental-regulation-india-cia-beyond/>, last seen on 15/02/2021.

²⁴ Rathi, supra 11.

²⁵ Supra 19; Rathi, supra 11.

²⁶ Supra 19.

²⁷ *Environmental Lawyer Who's Fought Over 350 Cases: Ritwick Dutta*, Mint (01/09/2014), available at <https://www.livemint.com/Multimedia/7KZz4d9LDeSjW0ZjWbLA5O/Environment-al-lawyer-whos-fought-over-350-cases-Ritwick-Du.html>, last seen on 14/02/2021.

Report states: “Between 2002 and 2013, 908 people were killed in 35 countries defending the environment and land, and the pace of killing is increasing”.²⁸ The recent instances of attack on environmental activists in India further bear testimony to this fact.²⁹ Hence, capacity and power imbalances are intrinsically intertwined issues, which contribute to the weakening of compliance measures.

5. Weakening of the EIA Legislation:

EIA was made mandatory in India via the 1994 Notification, which was introduced under the Environment Protection Act of 1994. As mentioned earlier, it is the 2006 Notification which is currently operationalized and a Draft EIA Notification has been proposed in 2020. However, it is worth noting that the notification status does not enjoy full power like a statutory law and is not discussed in the legislature.³⁰ In order to truly translate EIA within the Indian context, it needs to be discussed democratically and not merely be kept as a ‘Notification’, which has been said to be “*an indicator of the cavalier position of EIA in environmental governance in India.*”³¹ Furthermore, the 1994 Notification was amended 11 times in 12 years while the 2006 Notification has faced 40 interventions in the last 14 years.³² Subsequent amendments have been reported to be diluting the essence of EIA while the currently proposed Draft Notification, 2020 has been fiercely criticized and has been said to be ‘designed to fail’.³³ Hence, if legislation is expected to be complied with, its creation needs to be embedded with credibility, commitment and trust of the public.

²⁸ Supra 1, at 186.

²⁹ Disha Ravi: India activist arrest decried as 'attack on democracy', BBC, available at <https://www.bbc.com/news/world-asia-india-56066478>, last seen on 07/03/2021.

³⁰ Supra 23.

³¹ S. James & N. Udayashankar, *From 2006 to 2020: The Ongoing Problems of the EIA*, Socio-Legal Review, available at <https://www.sociolegalreview.com/post/from-2006-to-2020-the-ongoing-problems-of-the-eia>, last seen on 15/02/2021.

³² Supra 9.

³³ S. Bhatiya, *IIFM Organizes Discussion on The Implications of Draft EIA Notification, 2020*, Let Me Breathe, available at <https://letmebreathe.in/2020/08/01/iifm-organizes-discussion-on-the-implications-of-draft-eia-notification-2020/>, last seen on 15/02/2021.

6. Compartmentalized within disciplines:

EIA in India is dominantly technical in nature and is circumscribed with technical education such as, natural sciences and engineering.³⁴ However, EIA is essentially multi-disciplinary in nature, which is not necessarily reflected within the EIA system in India.³⁵ In recent discussions on Draft Notification, 2020, EIA has been criticized for being ‘bad science’.³⁶ This is alarming as EIA internationally is considered as ‘science and an art’.³⁷ Considering that EIA is essentially part of environmental governance and is just a ‘piece in the puzzle’³⁸, isolating EIA to be ‘bad’ and rejecting it is like throwing away the baby with the bath water! Lack of holistic understanding of the subject and treating it with a parochial view can be stripping off the tool of its potential. This lack of understanding, perhaps, is also the reason for apathy towards environmental legislation. In order for environmental legislation to be developed and tailored for the Indian context, it is important to have a multidisciplinary take on the subject area. This is further expected to facilitate understanding amongst the different disciplines, including legal studies to better cater to the requirements of the Indian context. The challenges for EIA seem to be cultural and political rather than technical and hence, EIA related education and knowledge related capacity-building is imperative if changes in attitudes and behaviors are to be introduced.³⁹

³⁴ U. J. Thakur, *Environmental assessment in South Asia: underrepresented in the international academic literature?*, 18 (2) *Journal of Environmental Assessment Policy and Management*, 1601002 (2016).

³⁵ T.B. Fischer & U. J. Thakur, *Environmental assessment and management related higher education master level degree programmes in the EU—an analysis*, 15(4) *Journal of Environmental Assessment Policy and Management*, 1350020 (2013).

³⁶ *Supra* 23.

³⁷ A. M. Saunders & S. Sadler, *The art and science of impact assessment: results of a survey of LAIA members*, 28 (1) *Impact Assessment and Project Appraisal*, 77-82 (2010).

³⁸ T.B. Fischer, S. Kidd, U. J. Thakur, P. Gazzola & D. Peel, *Learning through EC directive-based SEA in spatial planning? Evidence from the Brunswick Region in Germany*, 29(6) *Environmental Impact Assessment Review*, 421–428 (2009).

³⁹ F. Khosravi, U. J. Thakur & T. Fischer, *Enhancing EIA systems in developing countries: A focus on capacity development in the case of Iran*, 670 *Science of the Total Environment*, 425-432 (2019); U.J. Thakur, P. Gazzola, D. Peel, T.B. Fischer & S. Kidd, *Effectiveness of strategic environmental assessment—the significance of learning*, 27 (2) *Impact Assessment and Project Appraisal*, 133–144 (2009); Rathi, *supra* 11.

7. Lack of co-ordination:

Environmental legislations (such as the Water Act, 1974)⁴⁰ and EIA related legislations (such as the 2006 Notification)⁴¹ do not work in isolation; their implementation and success depends on the co-ordination with other related departments and legislations. A holistic understanding of these interrelationships is essential in order to deliver the required protection. Lack of co-ordination has already been pointed out as a weakness of the EIA legislation in India.⁴² An example that can reflect this complex relationship is from the closure of coal mines. The land for mining is usually acquired by the mining company from the State Government as lease. On completion of mining, based on the conditions provided in the EC letter by the MoEFCC, the company needs to restore the land and hand it over back to the state government. On further investigation, it was realized that state governments seldom take back the possession of the land. The mining company spends substantial number of resources on tree planting and post-planting care of saplings on the land. It is common to plant fruit trees and medicinal trees to enhance value of the produce for the local population. After taking care of the saplings for 5 years, the mining company cannot technically sell the produce from these trees. However, the state government is also reluctant to take the land back as they don't have resources to maintain the plantations and ultimately it becomes a no-man's land with a risk of losing all that had been invested in restoring it.⁴³ This example reflects the need for coordinated efforts, and holistic understanding of legal implications, if environmental protection is to be achieved sustainably in the long run.

8. Learning from experience:

The lack of flexibility of environmental legislation, as explained earlier, has deterred stakeholders' interaction. EIA essentially is an iterative process but due to procedural bottlenecks, the system has not been receiving

⁴⁰ The Water (Prevention and Control of Pollution) Act, 1974.

⁴¹ Supra 10.

⁴² Thakur & Khosravi, supra 5; Paliwal, supra 11.

⁴³ Supra 19.

feedback, which further prevents the dissemination of any best practices that might be there. This impedes translation of the EIA to the national context to suit the requirements of the country.⁴⁴ With weak enforcement and monitoring, environmental legislation works in a linear manner. However, the lack of will to learn from experience is further noted with regards to how EIA Notification has been changed over the years. The Draft Notification, 2020 does not pay any heed to the weaknesses of the EIA system rather; it dilutes it further.⁴⁵ For example, the Draft Notification has exempted projects associated with offshore and onshore exploration of Oil and Gas while we have just witnessed the 'Baghjan blast tragedy' in Assam.⁴⁶ This exemplifies that there is a lack of willingness to learn from experience not just within each EIA process, but also within the EIA system, which has now been in practice for more than 25 years in India.

IV. DISCUSSION AND THE WAY FORWARD

The key points discussed in the above sections are not exhaustive but can be said to be major factors that have diluted compliance of environmental legislations especially, within the context of EIA in India. Further, these factors are not mutually exclusive of each other. However, it should also be noted that the lack of compliance of environmental legislations despite an increase of new legislations is not unique to India, but has been a worldwide experience.⁴⁷ As a matter of fact, the factors that have been identified in this paper are also amongst the common factors within the UNEP Report. This paper simply puts forward the need to investigate the underlying problems associated with lack of compliance in order to develop approaches to enhance the credibility of our legislative system. In doing so, the case of EIA has been explored. However, further research

⁴⁴ Khosravi et al., *supra* 39.

⁴⁵ P.S Bindra & V. Rawat, *EIA 2020 legitimises environmental damage*, Sanctuary Nature Foundation, available at <https://sanctuarynaturefoundation.org/article/cia-2020-legitimises-environmental-damage>, last seen on 14/02/2021.

⁴⁶ *Assam: Draft EIA mocks Baghjan blast tragedy by exempting Oil and gas exploration*, INSIDENE (03/08/2020), available at <https://www.insidene.com/assam-draft-cia-mocks-baghjan-blast-tragedy-by-exempting-oil-and-gas-exploration/>, last seen on 17/04/2021.

⁴⁷ *Supra* 1.

and collaborative partnerships are required involving academics, regulators and practitioners to underline the causes of weak enforcements and develop innovative approaches of enhancing the credibility of the legislative system for environmental laws.

As discussed earlier, in the Indian scenario, especially within the context of EIA, the system is largely framed around a ‘command and control’ approach, even though the regulators are facing a resource crunch and the compliance monitoring mechanisms are weak, and not well coordinated. EIA Notification itself should not be kept as a subordinate law and if there is any expectation of better compliance, then empowerment of regulators is essential. However, the role of regulators shouldn’t be circumscribed as policing agents, rather their role can be extended to providing advice and suggestion. The role of Environment Agency in the UK and the Netherlands Commission of Environmental Assessment can be explored, for inspiration.⁴⁸ In India, what we need is a neutral committee, which neither appraises the environmental process nor writes the EIA report. The committee can provide training, engage with best practice dissemination, and enhance coordination amongst the relevant stakeholders, thereby adding a certain level of objectivity to the process.⁴⁹

Additionally, depending only on compliance related mechanisms can deliver limited success and this was realized way back in the 1990s. This is the time when for businesses, the introduction of a proactive approach like the introduction of Environmental Management Systems (“EMSs”) has brought about a paradigm shift.⁵⁰ In India too, EMSs are in practice but are not mandated as legislative requirements. EIA follow-up for example, can bridge the connection between legislative requirements and proactive EMSs.⁵¹ The foundation for this is already present in India whereby proponents have Environmental Management Plans. However, these too are treated like static documents. A more integrated approach of legislation

⁴⁸ Thakur & Khosravi, *supra* 5.

⁴⁹ *Ibid.*

⁵⁰ S. Tinsley & I. Pillai, *Understanding Organizational Drivers and Barriers*, (1st ed., 2006).

⁵¹ R. Marshall, J. Arts & A. M. Saunders, *International Principles for Best Practice EIA Follow-Up*, 23(3) *Impact Assessment and Project Appraisal*, 175-181 (2005).

and proactive management can be developed to complement the 'command and control' approach.

Finally, environmental education in India needs to be encouraged to encompass a multi-disciplinary perspective.⁵² It should not be taught only as cause-effect relation within natural science and engineering disciplines, but also as a social science. Governance mechanisms to consider the complexities and wider participation, is needed in order to deliver to its fullest potential. Educational provision along with capacity building amongst stakeholders, including administrative candidates, is essential in enhancing and empowering the stakeholders who participate within the system.⁵³

V. CONCLUSION

The UNEP Report on Environmental Rule of Law, 2019⁵⁴ has highlighted the issue of increasing environmental legislation but decreasing compliance worldwide, thereby rendering the legislations ineffective in protecting the rapidly deteriorating environment. This paper looks into the factors that have inhibited compliance of environmental legislation in India and in doing so, has used the lens of EIA. A total of eight factors have been highlighted, which are not mutually exclusive of each other. These include lack of motivation offered within the legal system to comply; lack of bespoke adjustments and a one size fit all approach; low quality work resorting to a copy paste culture; power imbalance and lack of capacity of regulators; need for adjusting legislation to suit the national context; lack of multi-disciplinary approach, lack of coordination and holistic understanding of issues and finally, the lack of will to learn from experience. Further research is needed to comprehensively study the factors and look for innovative approaches in collaboration with regulators, academics and practitioners. As a way forward, three initial recommendations have been provided which include: a) enhancing capacity of regulators and developing a neutral committee for

⁵² Supra 34.

⁵³ Khosravi et al., supra 39.

⁵⁴ Supra 1.

disseminating of best practices and providing guidance; b) complementing the command-and-control approach with more proactive measures and finally; c) enhancing the role of education in taking a multidisciplinary approach to environmental problem solving. The recommendations provided should help in shifting the focus from compliance-oriented system to more proactive performance enhancements, which should lead the way for delivering leadership in environmental sustainability in India.

A CRITIQUE OF THE NGT'S RULINGS IN THE VIZAG GAS LEAK CASE VIS-À-VIS THE ENVIRONMENTAL RULE OF LAW CONCEPT

**Keith Varghese & **Shyama Kuriakose*

ABSTRACT

In light of a spate of industrial accidents occurring around the country and the delay in compensating victims of such accidents, the authors felt it prudent to examine National Green Tribunal's Interim Order and Judgement surrounding the Vizag Gas Leak case from May 2020. The authors attempt to carry out this enquiry to check whether the Order and Judgement are in accordance with the principles of environmental rule of law which highlight the need for speedy and implementable justice.

I. BACKGROUND

In the early hours of 7th May, 2020, Venkatpuram village in Vishakhapatnam woke up to a deadly gas (namely Styrene) leak from the factory premises belonging to LG Polymers India Private Ltd. (“**industry**”). This unfortunate incident led to the death of 11 people and hospitalization of more than 100 people. The said industry was shut for over a month due to the corona virus induced lockdown and the incident occurred when it commenced its operations again.

The Andhra Pradesh High Court¹ (“**APHC**”) took *suo motu* cognizance of the matter. Given that styrene has been categorized as a hazardous and toxic chemical under the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989² under the Environment Protection Act, 1986³, the National Green Tribunal⁴ (“**NGT**”) also assumed jurisdiction over the

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¹ *In Re. Poisonous gas leakage in Vishakaptnam v. State of Andhra Pradesh & Ors.*, 2020 SCC OnLine AP 148.

² The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989.

³ The Environment Protection Act, 1986.

⁴ National Green Tribunal, *Report: In re: Gas Leak at LG Polymers Chemical Plant in RR Venkatapuram Village Visakhapatnam in Andhra Pradesh*, available at

issue. The NGT vide its Interim Order on 8th May, 2020 (“**Interim Order**”) appointed a 6-member committee, consisting of legal and scientific experts, to ascertain the sequence of events, cause of failure, persons/authorities responsible and extent of damage to life and environment. In addition, the NGT also directed the industry to deposit Rs. 50 Cr with the District Magistrate, Vishakhapatnam.

NGT's *suo motu* powers to issue this Interim Order was challenged by the said industry in the Supreme Court (“**SC**”) on the grounds that NGT does not have powers to take *suo motu* cognizance while committees appointed by the APHC, National Human Rights Commission (“**NHRC**”) etc. are already investigating the matter.⁵ The SC, vide order dated 19.05.2020, directed the industry to raise its contentions before the NGT itself, since the matter was pending adjudication in the NGT. The matter continued simultaneously in the APHC as well. The NGT, vide judgement dated 6th June, 2020 (“**Judgement**”), decided that it has powers to take *suo motu* cognizance in this case and is empowered by statute to decide on the issue of compensation. The SC has currently stayed further proceedings in the NGT till the dispute is adjudicated by the SC.

Through this article, the authors intend to examine whether the NGT's Judgment as well as its Interim Order dated are according to the principles reflecting environmental rule of law which are described below. It is pertinent to clarify that the authors are aware that the Interim Order has merged with the judgement. However, certain important issues of law arise from the Interim Order and hence, the authors have decided to examine both the rulings.

According to the first Global Report prepared by United Nations Environmental Program of 2019, “*environmental rule of law holds all entities equally accountable to publicly promulgated, independently adjudicated laws that are consistent with international norms and standards for sustaining the planet*”. The report assesses the experiences, challenges and successes of diverse

<http://www.indiaenvironmentportal.org.in/files/file/LG-Polymers-gas-leak-report-NGT.pdf>

⁵ LG Polymers India Private Limited v. Andhra Pradesh Pollution Control Board & Ors., (2020) 6 SCC 619.

countries around the world in strengthening the environmental rule of law. As per this assessment, a fair and transparent justice system is integral in effectively enforcing environmental rule of law.⁶ It naturally follows that such a justice system must follow the principles of natural justice by providing an opportunity for all parties to be heard. *Secondly*, the court's rationale in adjudicating a dispute must be sound and consistent. *Thirdly*, the remedies provided as a result of such adjudication must be effective and achievable. Given this background, it would be important to look at the order, in an issue wise manner.

II. NGT'S JUDGMENT AND INTERIM ORDER ARE *EX PARTE* AND VIOLATIVE OF THE PRINCIPLE OF '*AUDI ALTERAM PARTEM*'

Adherence to the environmental rule of law ensues that all parties in a dispute must be given the opportunity to represent themselves and be heard. In the instant case, the NGT during the course of the first hearing only, i.e., before issuing notice to the industry, directed the industry to deposit a sum of Rs. 50 crores.⁷ The amount of Rs. 50 Cr was fixed by NGT having regard to the financial worth of the company and the extent of damage caused. It would be interesting to explore provisions of the National Green Tribunal Act, 2010⁸ ("**the Act**") from which NGT derives its powers.

Section 19 of the Act, prescribes that the NGT shall be guided by the principles of natural justice.⁹ Further, Section 19 (4) of the Act confers on

⁶ UNEP, *Environmental Rule of Law: First Global Report* (2019), available at <https://www.unenvironment.org/resources/assessment/environmental-rule-law-first-global-report#:~:text=NAIROBI%E2%80%942024%20January%202019%20%E2%80%93%20The,over%20the%20last%20four%20decades>, last seen on 25/01/2021.

⁷ Supra 2.

⁸ The National Green Tribunal Act, 2010.

⁹ S. 19, The National Green Tribunal Act, 2010:

(1) The Tribunal shall not be bound by the procedure laid down by the Code of Civil Procedure, 1908 but shall be guided by the principles of natural justice.

...

(4) The Tribunal shall have, for the purposes of discharging its functions under this Act, the same powers as are vested in a civil court under the Code of Civil Procedure, 1908, while trying a suit, in respect of the following matters, namely: -

(a) summoning and enforcing the attendance of any person and examining him on oath;
 (b) requiring the discovery and production of documents;
 (c) receiving evidence on affidavits;

the NGT, the same powers as vested in a civil court under the Code of Civil Procedure.¹⁰ However, the same is qualified by an additional condition i.e., such an order/ judgment shall be passed only after providing the parties concerned an opportunity to be heard. Hence, the Act has categorically specified that the NGT cannot pass any orders without hearing the parties. This illustrates that NGT has not been provided with powers to pass *ex-parte* interim orders.

It is also important to peruse the NGT (Practice and Procedure) Rules, 2011 (“**the Rules**”) more specifically Rule 15 (6) and Rule 21. Rule 15(6)¹¹ stipulates that if the NGT deems fit, that it is not reasonably practicable to serve notice upon all the respondents then, it may after recording reasons, pass common orders for all respondents, provided that some respondents are in attendance. However, this is again qualified by the condition in the proviso clause that the interests of the respondents that are not in attendance, should be adequately and sufficiently represented by the

(d) subject to the provisions of Sections 123 and 124 of the Indian Evidence Act, 1872, requisitioning any public record or document or copy of such record or document from any office;

(e) issuing commissions for the examination of witnesses or documents;

(f) reviewing its decision;

(g) dismissing an application for default or deciding it *ex parte*;

(h) setting aside any order of dismissal of any application for default or any order passed by it *ex parte*;

(i) pass an interim order (including granting an injunction or stay) after providing the parties concerned an opportunity to be heard, on any application made or appeal filed under this Act;

(j) pass an order requiring any person to cease and desist from committing or causing any violation of any enactment specified in Schedule I;

(k) any other matter which may be prescribed.

¹⁰ *Ibid.*

¹¹ Rule 15, National Green Tribunal (Practices and Procedures) Rules, 2011:

(6). Notwithstanding anything contained in sub-rules (1) to (4), if the Tribunal is satisfied that it is not reasonably practicable to serve notice of application or appeal, as the case may be, upon all the respondents, it may, for reasons to be recorded in writing, direct that the application or appeal, as the case may be, shall be heard notwithstanding that some of the respondents have not been served with notice of the application or appeal:

Provided that no application or appeal, as the case may be, shall be heard unless-

(i) the notice of the application or appeal, as the case may be, has been served on the Central Government or the State Government or Union territory, as the case may be, if such Government is a respondent;

(ii) the notice of the application or appeal, as the case may be, has been served on the authority which passed the order against which the application or appeal has been filed; and

(iii) the Tribunal is satisfied that the interests of the respondents on whom notice of the application or appeal, as the case may be, has not been served are adequately and sufficiently represented by the respondents on whom notice of the application or appeal, as the case may be, has been served.

respondents on whom notice has been served. Further, Rule 21¹² contemplates a post-notice hearing of the case, when the respondents do not appear, where the NGT has powers to pass *ex parte* orders.

It could be argued that in light of Rules 15(6) and 21, NGT could be said to have all-encompassing powers to pass *ex parte* orders. However, it is pertinent to note that a Rule cannot be in contradiction of an Act under which it is passed and both have to be read harmoniously.¹³ Rules 15(6) and 21 merely provide for two extra-ordinary circumstances wherein NGT can pass *ex parte* orders, in order to remove practical difficulties. Even the SC has held that an order passed to the detriment of a party without notice, violates the principles of natural justice.¹⁴ Moreover, in several instances,¹⁵ the SC has by way of interim orders, while issuing notice, stayed *ex parte* interim orders passed by the NGT. The Kerala High Court¹⁶ has also held that the NGT does not have powers to pass *ex-parte* orders.

Further, the NGT judgment records that the industry has chosen not to file a reply despite an opportunity, on the pretext that they do not have access to records. However, it is pertinent to note that the APHC, vide order dated 22nd May, 2020, had directed complete closure and sealing of

¹² Rule 21, National Green Tribunal (Practices and Procedures) Rules, 2011:

(1) Where on the date fixed for hearing the application or appeal, as the case may be, or on any other date to which such hearing may be adjourned, the applicant or appellant as the case may be appears and the respondent does not appear when the application or appeal is called for hearing, the Tribunal may, in its discretion adjourn the hearing, or hear and decide such application or appeal ex-parte.

(2) Where an application or appeal, as the case may be, has been heard ex-parte against a respondent or respondents such respondent or respondents may apply within thirty days from the date of the order to the Tribunal for an order to set it aside and if such respondent or respondents satisfy the Tribunal that the notice was not duly served, or that he or they were prevented by any sufficient cause from appearing when application or appeal was called for hearing, the Tribunal may make an order setting aside the ex-parte order as against him or them upon such terms as it thinks fit, and shall appoint a day for proceeding with such application or appeal:

Provided that where the ex-parte order of the application or appeal is of such nature that it cannot be set aside as against one respondent only, it may be set aside as against all or any of the other respondents also:

Provided further that the Tribunal shall not set aside ex-parte order of an application or appeal, as the case may be, merely on the ground that it was not served upon a respondent or respondents.

¹³ Anwar Hasan Khan v. Mohammad Shafi, (2001) 8 SCC 540.

¹⁴ TVS Finance and Services Ltd. v. H. Shivakumar, (2010) 15 SCC 295.

¹⁵ ECE Industries Ltd. v. State of Uttar Pradesh, Civil Appeal No. 9808 of 2018 (Supreme Court); Praharit Pigments LLP v. State of Gujarat, Civil Appeal No. 8249 of 2019 (Supreme Court).

¹⁶ KK Rocks and Granites v. State of Kerala & Ors., 2003 SCC OnLine Ker 609.

the industry. Subsequently, the SC vide order dated 26th May, 2020 allowed access to 30 personnel of the industry. One of the contentions of the industry before the SC, seeking such an interim relief, was that they needed access to their records to defend the numerous cases in an effective manner. Hence, it may be assumed that the industry could not have had any access to the records from 22nd May, 2020 to 26th May, 2020 (i.e., till the interim relief from the SC). Further, it is the contention of the industry that the report of the committee appointed by NGT was uploaded on the (NGT) website on 28th May, 2020 i.e., only four days before the date of final hearing of the matter.¹⁷ Hence, the industry argued that because of non-availability of record they could not file a response to the committee or the affidavits of the authorities (Ministry of Environment, Forests & Climate Change (MoEF&CC) and State Pollution Control Board) in the NGT.

Thus, even though the industry was represented in the NGT proceedings on the date of final hearing, the NGT judgment was passed without providing the industry an opportunity to even respond to the NGT appointed committee's report or the stand taken by the authorities. This issue has been raised by the industry as one of the grounds in the SC, in the Civil Appeal challenging the NGT judgment. Accordingly, the SC, vide order dated 29th October, 2020, provided an opportunity to the industry to file a reply to the NGT appointed committee.

III. NGT'S *SUO MOTU* COGNIZANCE: EXCEEDING THE BOUNDARIES ENVISAGED UNDER THE ACT?

The Mughal Emperor Jahangir had said that he would fasten the Chain of Justice so that an oppressed might shake it, if those engaged in administration of justice would delay or practice hypocrisy.¹⁸ The Interim Order raises the question that whether the NGT is free to shake the chain for the cause of justice on its own volition. *Suo Motu* cognizance of a case could be understood as follows: “*In a suo motu case, the adversarial frame is abandoned, the constraints of passivity are displaced by outreach and management and*

¹⁷ Supra 1.

¹⁸ *The Tuzuk-i-Jahangiri or Memoirs of Jahangir*, (A. Rogers & H. Beveridge, 2018).

instead of being separated by layers of institutional intermediaries and filters of process, there is an imperative to connect with the immediacy of events.”¹⁹

The NGT judgment has held that it has powers to take *suo motu* cognizance of a case. The NGT has inferred Section 19 of the Act to hold that it has wide powers to devise its own proceedings which includes initiating a *suo motu* case. The NGT has further held that this power is necessary when the victims are economically disadvantaged and cannot approach the court. Further, the NGT has held that Rule 24²⁰ of the Rules confers discretion on the tribunal to pass such orders as may be necessary to secure ends of justice. NGT has also held that the approach of the Court while dealing with environment issues cannot be hyper technical as it would defeat the ends of justice and rather the Court can devise its own procedure to investigate and give relief to victims in appropriate cases. The judgment goes on to add that:

If even a third person claiming to be ‘public spirited’ can be given locus, why publicly known serious violations of environment affecting the Rule of Law, human and existential rights must be objected to be protected by this Tribunal, in the face of a clear constitutional, statutory and international law mandate?²¹

The NGT concludes that nothing in the Act prohibits NGT from taking up *suo motu* cognizance. It is pertinent to note that the NGT has proceeded on the basis that it is a court, which is also evident from the judgment wherein ‘Court’ has been used interchangeably with ‘tribunal’. However, the NGT is not a court but a tribunal. Tribunals derive their powers to take *suo motu* cognizance from their respective parent statutes. For instance, the NHRC derives its power to take *suo motu* cognizance by virtue of section 12 (a) of the Protection of Human Rights Act, 1993²² but there is no similar statutory provision to empower NGT. A section empowering a tribunal to

¹⁹ G. Marc & V. Ram, *Suo Motu Intervention and the Indian Judiciary*, 92-122 (G.N. Rosenberg & S. Krishnaswamy).

²⁰ *Supra* 11, Rule 24.

²¹ *Supra* 2.

²² S. 12, The Protection of Human Rights Act, 1993:

The Commission shall perform all or any of the following functions, namely:

(a) inquire, suo motu or on a petition presented to it by a victim or any person on his behalf or on a direction or order of any court, into complaint of
 (i) violation of human rights or abetment thereof; or
 (ii) negligence in the prevention of such violation, by a public servant;

regulate its own procedure is a general power and could be found in parent statutes of other tribunals as well. However, courts have held that such Sections providing general powers to a tribunal to regulate its own procedure do not include *suo motu* powers.

For instance, the Debt Recovery Appellate Tribunal (“DRAT”)²³ as well as the Delhi High Court²⁴, while deciding if DRAT has *suo motu* powers, interpreted Section 22(1) of Recovery of Debts Due to Banks and Financial Institutions Act, 1993 (which states that the Debt Recovery Tribunal (“DRT”) and the DRAT *shall have powers to regulate their own proceedings*), held that such a Section cannot be expanded to state that DRT/DRAT have *suo motu* powers. Tribunals are creations of a statute and it is not open for them to travel beyond the provisions stipulated therein.²⁵

NGT through the judgment, by stating that it has powers to take up *suo motu* cognizance of a case, has attempted to uphold the Rule of Law by increasing access to justice. However, as per the Indian law, tribunals are bound by certain limitations. The SC, while issuing notice in *Central Electric Supply Utility of Odisha v. Government of India*, concerning the issue whether NGT has powers to take up *suo motu* cognizance, had stayed the NGT's Interim Order and the said case is currently pending adjudication in the SC.²⁶ Be that as it may, the SC will now have to conclusively adjudicate this issue and give it some finality.

IV. CONCLUSION

Given the above-mentioned observations, the authors humbly opine that the NGT's Judgment may not pass the muster of environmental rule of law on the issue of principles of natural justice. In the recent past, numerous NGT orders have been challenged and set aside in the SC²⁷ for being in violation of principles of natural justice. Such situations could be averted if the NGT exercises caution while adjudication. An order passed

²³ Bhangoo and Co. v. Mittal & Garg Enterprises & Anr., 2005 SCC OnLine DRAT 72.

²⁴ Padam Singhee & Ors. v. SVOGL Oil, Gas and Energy Ltd. & Ors., (Delhi High Court, 18/08/2018).

²⁵ D Ramakrishna Reddy v. Addl. Revenue Divisional Officers, (2000) 7 SCC 12.

²⁶ Central Electric Supply Utility of Odisha v. Government of India, Civil Appeal No. 5902 of 2019 (Supreme Court, 05/08/2019).

²⁷ Supra 10.

by NGT in violation of the Act and against the tenets of the environmental rule of law could be interfered with by the superior courts thereby delaying the cause of environmental justice. In environmental cases, delay in justice could lead to irretrievable loss to the environment and life.

Further, by deciding that it has powers to take up *suo motu* cognizance of a case, NGT has upheld the environmental rule of law by increasing access to justice. However, because of ambiguity in the Act and Rules coupled with the legal limitations of a tribunal, it is imperative that either SC adjudicates this issue or the legislature amends the Act to bestow such powers on the NGT. Given the flurry of industrial accidents that have arisen post lockdown and their negative impact on people as well as environment,²⁸ it is important for environmental cases to be dealt with in an efficient manner, so as to avoid prolonged litigation and provide justice to the victims at the earliest.

²⁸ *Post lockdown, industrial accidents have killed 75 people in India: Global workers' union*, The Hindu Business Line (07/07/2020), available at <https://www.thehindubusinessline.com/news/post-lockdown-industrial-accidents-have-killed-75-people-in-india-global-workers-union/article32014407>, last seen on 25/01/2021.

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