

Northumbria Research Link

Citation: Gill, Gita, Chowdhary, Nupur and Srivastava, Nidhi (2021) Biodiversity and the Indian judiciary: tracing the trajectory. BRICS Law Journal, 8 (2). pp. 10-40. ISSN 2409-9058

Published by: University of Tyumen

URL: <https://doi.org/10.21684/2412-2343-2021-8-2-10-40>
<<https://doi.org/10.21684/2412-2343-2021-8-2-10-40>>

This version was downloaded from Northumbria Research Link:
<http://nrl.northumbria.ac.uk/id/eprint/46233/>

Northumbria University has developed Northumbria Research Link (NRL) to enable users to access the University's research output. Copyright © and moral rights for items on NRL are retained by the individual author(s) and/or other copyright owners. Single copies of full items can be reproduced, displayed or performed, and given to third parties in any format or medium for personal research or study, educational, or not-for-profit purposes without prior permission or charge, provided the authors, title and full bibliographic details are given, as well as a hyperlink and/or URL to the original metadata page. The content must not be changed in any way. Full items must not be sold commercially in any format or medium without formal permission of the copyright holder. The full policy is available online: <http://nrl.northumbria.ac.uk/policies.html>

This document may differ from the final, published version of the research and has been made available online in accordance with publisher policies. To read and/or cite from the published version of the research, please visit the publisher's website (a subscription may be required.)

ARTICLES

BIODIVERSITY AND THE INDIAN JUDICIARY: TRACING THE TRAJECTORY

GITANJALI NAIN GILL,

Northumbria University (Newcastle, United Kingdom)

NUPUR CHOWDHURY,

Jawaharlal Nehru University (Delhi, India)

NIDHI SRIVASTAVA,

Jawaharlal Nehru University (Delhi, India)

<https://doi.org/10.21684/2412-2343-2021-8-2-10-40>

The Covid-19 narrative spotlights the necessity to conserve biological diversity (biodiversity) including ecosystems and wildlife. Biodiversity problems are global, and associated governance issues range beyond geographical and spatial boundaries. The globalisation and internationalisation of biodiversity concerns have resulted in the emergence of biodiversity legal frameworks designed to conserve and sustainably use our planet's biological resources. As an "organic and evolving discipline," biodiversity laws are increasingly important and affect the Earth's natural systems that support human life. The article analyses the judicial space that makes, interprets and enforces laws that conserve and support the sustainable use of biodiversity. The proactive, creative judiciary, acting as amicus environment, has produced a major shift in the Indian environmental landscape. The use of public interest litigation (PIL) in both environmental and biodiversity matters is welcomed by the senior judiciary (Supreme Court and High Courts) and also by the specialised environmental tribunal, National Green Tribunal (NGT). The terminological reach of the popular descriptive words, environment, nature and ecology, on occasions including biodiversity, introduced matters litigated in the courts and tribunal. The combination of legal, scientific, and technical expertise in the three judicial fora recognize and consider conservation and protection of biodiversity as an inextricable part of life. The article follows the chronological path of biodiversity

litigation, i.e. pre 1992–2002; then 2002–2010 and finally 2010–2020 and examines significant aspects of the three decades of biodiversity litigation.

Keywords: biodiversity; India; judiciary; case law analysis; International and Indian laws.

Recommended citation: Gitanjali Nain Gill et al., *Biodiversity and the Indian Judiciary: Tracing the Trajectory*, 8(2) BRICS Law Journal 10–40 (2021).

Table of Contents

Introduction

1. Methods

2. Statutory Law

3. Pre-Biodiversity Act Period (1992–2002)

4. First Phase in Post-Biodiversity Act Period (2002–2010)

5. Second Phase in Post-Biodiversity Act Period (2010–2020)

5.1. Definitional Issues

5.2. Conservation of Biodiversity

5.3. Current and Future Challenges

5.4. Personhood to Biological Entities

5.5. Implementation of the Biodiversity Act

5.6. Access and Benefit Sharing

Conclusion

Introduction

Covid-19 suggested as a “black swan”¹ event or the manifestation of “future shock”² has not taken the world by surprise. The outbreak of Covid-19 likely resulting from illegal wet markets trading in wildlife, including pangolins, is a man-made disaster. Research indicates humanity’s destruction of biodiversity has promoted animal-borne diseases including Ebola, SARS, bird-flu, and currently Covid-19. Nature has its own way of responding to the indifference of humanity.³ The transmission of pathogens (virus) to humans due to loss of biodiversity has disastrous effects on

¹ Nassim Nicholas Taleb, *The Black Swan: The Impact of the Highly Improbable* (2007).

² Alvin Toffler, *Future Shock* (1970).

³ Ruchi Tiwari et al., *COVID-19: Animals, Veterinary and Zoonotic Links*, 40(1) *Vet. Q.* 169 (2020); John Vidal, *‘Tip of the Iceberg’: Is Our Destruction of Nature Responsible for Covid-19?*, *The Guardian*, 18 March 2020 (Mar. 10, 2021), available at <https://www.theguardian.com/environment/2020/mar/18/tip-of-the-iceberg-is-our-destruction-of-nature-responsible-for-covid-19-aoe>.

people's lives and livelihoods and results both in a degraded ecosystem and social change. The 2021 Dasgupta Review states:

biodiversity is declining faster than at any time in human history ... such declines are undermining nature's productivity, resilience and adaptability, and are in turn fuelling extreme risk and uncertainty for our economies and well-being. The devastating impacts of Covid-19 and other emerging infectious diseases – of which land-use change and species exploitation are major drivers – could prove to be just the tip of the iceberg if we continue on our current path.⁴

The Covid-19 narrative spotlights the necessity to conserve biological diversity (biodiversity), including ecosystems and wildlife. Biodiversity problems are global, and associated governance issues range beyond geographical and spatial boundaries.⁵ Biodiversity disputes are multi-disciplinary, complex and often political. The globalisation and internationalisation of biodiversity concerns have resulted in the creation of emergence of biodiversity legal frameworks designed to conserve and sustainably use our planet's biological resources. As an "organic and evolving discipline,"⁶ biodiversity laws are increasingly important and affect the Earth's natural systems that support human life. International agreements, declarations and institutions call for reliable foundations at regional and national levels that consistently and effectively address biodiversity.⁷

The Convention on Biological Diversity (CBD) 1992 is the international legal framework that addresses both the conservation and use of biological resources.⁸

⁴ Partha Dasgupta, *The Economics of Biodiversity: The Dasgupta Review*, HM Treasury (February 2021), at 6 (Mar. 10, 2021), available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/962785/The_Economics_of_Biodiversity_The_Dasgupta_Review_Full_Report.pdf.

⁵ See *Transboundary and Governance of Biodiversity* (Louis J. Kotzé & Thilo Marauhn eds., 2014). Kotze and Marauhn argue that transboundary biodiversity governance has emerged as a useful paradigm from both conceptual and practical points of view to respond to the ecosystem approach and recognizes the borderless character of biodiversity resources.

⁶ Burton Ong, *Biodiversity and the Law: Mapping the International Legal Terrain in Routledge Handbook of Biodiversity and the Law* 3, 11 (Charles R. McManis & Burton Ong eds., 2018).

⁷ Nicholas A. Robinson, *Biodiversity in International Environmental Law Through the UN Sustainable Development Goals in Routledge Handbook of Biodiversity and the Law*, *supra* note 6, at 27, 32–34.

⁸ United Nations, Convention on Biological Diversity, 5 June 1992, 1760 U.N.T.S. 69. The CBD builds upon the 1982 World Charter for Nature ethical framework that calls for the conservation of global natural habitats and resources. In addition, there are other multilateral environmental agreements adopted and integrated under the CBD including 1979 Bonn Convention on the Conservation of Migratory Species, 1971 Ramsar Convention, 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora, 1992 United Nations Framework Convention on Climate Change, 1994 United Nations Convention to Combat Desertification; and the 2001 United Nations Convention on Persistent Organic Pollutants. In addition, forums including the International Union for Conservation of Nature,

It is premised on the conservation of biological diversity,⁹ the sustainable use of its components¹⁰ and the fair and equitable sharing of the benefits.¹¹ Important forums, including the U.N. Conference on Sustainable Development (Rio+20)¹² and the 2030 Agenda for Sustainable Development (SDGs),¹³ have called for further action to conserve and restore biodiversity. SDGs' Goals 14 and 15 explicitly highlight the need to conserve biodiversity. Goal 14 relates to sea life. Enhancing the conservation and sustainable use of oceans, seas, and marine resources promotes global good. Goal 15 protects life on land by ensuring the conservation, restoration, and sustainable use of terrestrial and inland freshwater ecosystems and their services, with a focus on forests, wetlands, mountains, and drylands. The 2019 Global Assessment of the State of Biodiversity and Ecosystem Services report stressed the need for fostering a transformative change that ensures "nature can be conserved, restored and used sustainably while simultaneously meeting other global societal goals [SDGs] through urgent and concerted efforts."¹⁴

The United Nations (U.N.) Decade on Biodiversity (2011–2020) recognized the need through global action to address the underlying drivers that influence the direct pressures on biodiversity.¹⁵ A strategic plan for biodiversity was developed, including 20 Aichi Biodiversity Targets, to implement the goals of CBD between 2011–2020.¹⁶ According to the Global Biodiversity Outlook Report 5¹⁷ there has been

the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, and the Global Biodiversity Information Facility coordinate and cooperate to sustain shared biodiversity resources.

⁹ CBD, Arts. 6–9, 11 & 14.

¹⁰ *Id.* Arts. 6, 10 & 14.

¹¹ *Id.* Arts. 14, 15, 16 & 19–21.

¹² United Nations, *The Future We Want*, Outcome document of the United Nations Conference on Sustainable Development, Rio de Janeiro, Brazil, 20–22 June 2012, para. 197 (Mar. 10, 2021), available at <https://sustainabledevelopment.un.org/content/documents/733FutureWeWant.pdf>.

¹³ The 2015 Open Working Group of the U.N. General Assembly on SDGs, though covering a broad range of sustainable development issues, accepted that the conservation of natural systems and resources provide intangible services to the mankind. The planet's biological resources support human society and hence the urgency to manage and conserve the same. Biodiversity underpins a much wider set of goals including food security and improved nutrition (SDG 2) and clean water (SDG 6) and Climate change (SDG 13).

¹⁴ Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), *Global Assessment Report on Biodiversity and Ecosystem Services: Summary for Policymakers* (2019), at 44 (Mar. 10, 2021), available at <https://ipbes.net/global-assessment>.

¹⁵ United Nations Decade on Biodiversity 2011–2020 (Mar. 10, 2021), available at <https://www.cbd.int/2011-2020/>.

¹⁶ *Id.*

¹⁷ Secretariat of the Convention on Biological Diversity, *Global Biodiversity Outlook 5: Summary for Policymakers* (2020) (Mar. 10, 2021), available at <https://www.cbd.int/gbo/gbo5/publication/gbo-5-spm-en.pdf>.

limited achievement globally of the Aichi Biodiversity Targets despite the governments and wider society sincere efforts to address the biodiversity crisis ... if we place biodiversity at the heart of all our policies and decisions, we can ensure a better future for our societies and the planet.¹⁸

Against the backdrop of limited progress, the U.N. General Assembly declared 2021–2030 as the U.N. Decade on Ecosystem Restoration.¹⁹ Recognising the importance of the CBD, the U.N. General Assembly stresses that

ecosystem restoration is a complement to conservation activities and that priority should be given to conserving biodiversity and preventing the degradation of natural habitats and ecosystems by reducing pressures and maintaining ecological integrity and the provision of ecosystem services.²⁰

India is one of the twelve mega biodiversity countries.²¹ According to the National Biodiversity Authority of India Report, India anchors 7–8% of the recorded species of the world. To-date, over 91,200 animal and 45,500 plant species are documented. Around 9,500 plant species are used as medicine in indigenous health practices and more than 3,900 plant species are used by local and indigenous people as food, fibre, fodder, insecticides and pesticides, gum, resins, dyes, perfume, and timber.²² The Indian government has undertaken several initiatives to achieve biodiversity targets developed under the CBD and in line with the 20 Global Aichi biodiversity targets. These initiatives include bringing more than 20 percent of land under protection and conservation efforts; Hargilla army movement (a women's group of conservationists protecting endangered storks); the total conservation area is nearly 27% of the country; wildlife protected areas increased from 690 in 2014 to 770 in 2017; access and benefit sharing (ABS) e-filing system; participatory process of communication, education and public awareness (CEPA) involving stakeholders at all levels.²³ Although the Indian ecological footprint per person is relatively small, being less than 1.6 global hectares/person, within a society of 1.3 billion people, the biodiversity mass is huge.²⁴

¹⁸ Global Biodiversity Outlook 5, *supra* note 17, at 4, 5 & 11–17.

¹⁹ U.N. General Assembly, Decade on Ecosystem Restoration, 1 March 2019, A/RES/73/284.

²⁰ *Id.*

²¹ National Biodiversity Authority of India, Annual Report (2017–18) (Mar. 10, 2021), available at http://nbaindia.org/uploaded/Annual_report_2017-18_english.pdf.

²² *Id.* at 11.

²³ Clearing-House Mechanism of the CBD, Sixth National Report (2019) (Mar. 10, 2021), available at <https://chm.cbd.int/database/record/93FF87C5-5D5D-B150-2A0F-5D3AF67E77C9>.

²⁴ World Wide Fund for Nature, Living Planet Report 2020: Bending the Curve of Biodiversity Loss (2020), at 2 (Mar. 10, 2021), available at https://wwfin.awsassets.panda.org/downloads/lpr_2020_full_report.pdf.

Consequently, there are challenges that include loss of freshwater environment and species, reef collapse, declining plant diversity, food loss and waste.²⁵

It is beyond the scope of this article to examine in detail the Indian government's biodiversity policies and initiatives. Instead, it focuses on tracing the trajectory of India's biodiversity litigation by identifying judicial landmark judgments. The contributions of the environmental rule of law and the role of the judiciary in safeguarding and conserving biodiversity are significant. The environmental rule of law provides a predictable foundation for redress of grievances and enforcement of legal rights and obligations through a system of legal and social institutions.²⁶ It rests upon a rights-based approach to guide judicial decision-making in environmental matters including biodiversity issues. These ultimately lead to better results by addressing the impact of environmental degradation and biodiversity loss. Stronger and specialised judiciaries, and effective biodiversity laws, underpinned by the environmental rule of law, offer credible and holistic solutions. They help to "restore biodiversity – the living fabric of our planet and the foundation of human life."²⁷

This article analyses the judicial space created to make, interpret, and enforce laws that promote the collective goal of conservation and the sustainable use of biodiversity. The proactive and creative judiciary, acting as *amicus environment*, has produced a major shift in the environmental landscape of India. The use of public interest litigation (PIL) in both environmental and biodiversity matters is welcomed by the senior judiciary (Supreme Court and High Courts), and by the specialised environmental tribunal, National Green Tribunal (NGT). The terminological reach of the popular descriptive words, environment, nature, and ecology, on occasions including biodiversity, introduced matters litigated in the courts and tribunal. The combination of legal, scientific, and technical expertise in the three judicial fora recognize and consider conservation and protection of biodiversity as an inextricable part of life. Biodiversity has an impact on human well-being, as it forms the life support system of planet Earth. This article, in reviewing the decisions of the senior courts and NGT, identifies and explores the application of international environmental law principles, engagement with the regulatory institutions responsible for biodiversity governance, and interpreting rights and obligations under the Biodiversity Act and other analogous legislation. The Indian judiciary's legitimacy is grounded on developing *sui generis* biodiversity discourse entertaining petitions, seeking remedies, including guidelines and directions particularly where there is misunderstood, undervalued, weak or even absent legislation.

²⁵ Living Planet Report 2020, *supra* note 24, at 2.

²⁶ Gitanjali Nain Gill, *Environmental Justice in India: The National Green Tribunal* 15 (2017).

²⁷ See Global Biodiversity Outlook 5, *supra* note 17, at 1. See also *Sridevi Datla v. Union of India*, 2021 S.C.C. Online S.C. 235. The Supreme Court recognised the importance of specialised judiciaries to adjudicate complex matters relating to biodiversity, forests and the environment.

This article is divided into seven parts. Section 2 presents the methods used to locate relevant biodiversity cases. Section 3 briefly covers India's biodiversity statutory law. Sections 4, 5 and 6 follow the chronological path of biodiversity litigation, i.e. pre 1992–2002; then 2002–2010 and finally 2010–2020.²⁸ The authors chose 1992 because it is the year the CBD came into force and India became a signatory in May 1994. The enactment of the domestic Biodiversity Act 2002 is the second major milestone followed by the establishment of the NGT (a specialised environmental tribunal) in 2010, being the third marker in the timeline. The concluding section summarises the various significant aspects of the three decades of biodiversity litigation.

1. Methods

Sectoral legislation being legislation that covers one specific aspect of biodiversity (such as forests and wildlife) exists alongside the generalised Biodiversity Act.²⁹ There is multiple case law analysis illustrating the Indian judiciary's commitment to the conservation of biodiversity and the larger interests of the society.

The article analyses the Supreme Court, High Courts and NGT biodiversity judgments and orders. The cases were searched in three timelines: 1992–2002 (pre-Biodiversity Act phase covering Supreme Court and High Courts judgments); 2002–2010 (post-Biodiversity Act first phase covering Supreme Court and High Courts judgments) and finally 2010–2020 (post-Biodiversity Act second phase encompassing Supreme Court, High Courts and NGT judgments; the reason being the specialised NGT was established in 2010).

Multiple databases were used including SCC Online, Manupatra, Indiakanoon, High Court websites, Supreme Court website, National Green Tribunal Website and Live Law. The authors identified the usage of key biodiversity terms: biological diversity, biodiversity, biological resources, bio-resources, in-situ conservation, ex-situ

²⁸ Prior to 1992, the Supreme Court in the landmark case of *Rural Litigation and Entitlement Kendra, Dehradun v. State of Uttar Pradesh* ((1989) Supp. (1) S.C.C. 504) stressed the relationship between forests and human survival from a religious environmentalism context. To quote "trees were friends of mankind and forests were necessary for human existence and civilization to thrive. It is these forests that provided shelter for the 'Rishies' and accommodated the ancient 'Gurukulas.' They too provided food and sport for our forefathers living in the State of Nature. In ancient times trees were worshiped as gods and prayers for up-keep of forests were offered to the Divine. In the Artharva Veda (5.30.6) it has been said: Man's paradise is on earth; This living world is the beloved place of all; It has the blessings of Nature's bounties; Live in a lovely spirit." See also Shyam Divan & Armin Rosencranz, *Environmental Law and Policy in India: Cases, Materials and Statutes* (2001). Divan and Rosencranz on page 308 state that by a series of judgments, the Supreme Court balanced "environmental and ecological integrity against industrial demands on forest resources."

²⁹ Historically, forests and specific animal species legislations enacted by the British administration aimed to regulate State ownership and control over natural resources. In post-independent India, the Wildlife Protection Act, 1972 (WPA) was the first conservation legislation to establish protected areas with differential levels of humans' access to provide for an in-situ wildlife conservation. Thereafter, the Forest Conservation Act, 1980 was enacted to regulate the opening of reserved forests for non-forest use (commercial use).

conservation, conservation, sustainable usage, species, eco-system, access and benefit-sharing and National Biodiversity Authority. Search results were triangulated to identify landmark cases. The purpose is two-fold: first, identify the referencing and usage of international biodiversity instruments and laws; and second, examine the judicial contribution to the conservation of biodiversity through the interpretation and application of domestic statutes.

2. Statutory Law

A summary of India's statutory law contextualises biodiversity litigation. International treaties and agreements oblige states to enact, implement and enforce laws pursuant to international obligations. The Indian constitutional provision, Article 51, mandates India to foster respect for international law and treaty obligations.³⁰ Consequently, India signed the CBD in 1992. Further, the Constitution under Article 253 confers plenary powers on parliament to enter into treaties and agreements and enact the necessary legislation.³¹ Articulating the commitment of being a "good international citizen,"³² the Indian Parliament enacted the Biological Diversity Act in 2002 (Biodiversity Act) and Rules in 2004 as part of its international obligations.³³

Section 2(b) of the Biodiversity Act defines biodiversity as the

variability among living organisms from all sources and the ecological complexes of which they are part and includes diversity within species or between species and of eco-systems.

The important provisions of the Biodiversity Act can be traced to the co-benefits approach that promotes sustainable development. These include conservation (*in situ* and *ex situ*) aspects; sustainable use of and access to biological resources; assert the sovereign rights of the people of India over their genetic and biological diversity resources; safeguarding traditional knowledge; access to biological resources and

³⁰ Article 51 of the Constitution of India states: "The State shall endeavour to: (a) promote international peace and security; (b) maintain just and honourable relations between nations; (c) foster respect for international law and treaty obligations in the dealings of organised peoples with one another; and (d) encourage settlement of international disputes by arbitration." See *Commissioner of Customs v. G.M. Exports*, (2016) 1 S.C.C. 91; *Apparel Export Promotion Council v. A.K. Chopra*, (1999) 1 S.C.C. 759.

³¹ Article 253 of the Constitution of India states: "Notwithstanding anything in the foregoing provisions of this Chapter, Parliament has power to make any law for the whole or any part of the territory of India for implementing any treaty, agreement or convention with any other country or countries or any decision made at any international conference, association or other body."

³² Owen Cordes-Holland, *The National Interest or Good International Citizenship? Australia and its Approach to International and Public Climate Law in Environmental Discourses in Public and International Law* 288 (Brad Jessup & Kim Rubenstein eds., 2012).

³³ Biological Diversity Act, 2002 (No. 18 of 2003).

associated knowledge of the people of India by foreign persons which requires the prior governmental approval. There are also exemptions to access including value added products; prevention of bio-piracy; intellectual property issues; approvals, sanctions, and penalties.³⁴

At the institutional level, a three-tier structure is established under the Biodiversity Act. The first tier is headed by the National Biodiversity Authority (NBA) to implement the provisions of the act through a targeted-oriented plan.³⁵ The second and the third tiers constitute the State Biodiversity Boards (SBB)³⁶ and Biodiversity Management Committee (BMC) operating at the state and local level respectively.³⁷

3. Pre-Biodiversity Act Period (1992–2002)

India became a signatory to the CBD in May 1994. The mid-1990s marked the beginning of a new era in India's biodiversity jurisprudence. The judiciary reminded the State of its international obligations to protect biodiversity under the CBD.³⁸ In *T.N. Godavarman Thirumalpad v. Union of India*³⁹ the Supreme Court stated

in the absence of any inconsistency between the domestic law and the international conventions, the rule of judicial construction is that regard must be given to international conventions and norms even in construing the domestic law. It is, therefore, necessary for the Government to keep in view the international obligations while exercising discretionary powers under the Conservation Act unless there are compelling reasons to depart therefrom.⁴⁰

Additionally, the courts applied the principles of international environmental laws to protect biodiversity and resources. In *Vellore Citizens Welfare Forum v. Union*

³⁴ Biological Diversity Act, 2002 (No. 18 of 2003).

³⁵ *Id.* Secs. 8, 19, 20 & 21. These include advisory, facilitative, and regulatory functions on the conservation, sustainable use of biological resources and equitable benefit sharing. For example, the NBA shall grant approval subject to any regulation for undertaking research in India or for commercial utilisation or for bio-survey and bio-utilisation or transfer the results of any research relating to biological resources occurring in or obtained from India.

³⁶ *Id.* Sec. 23. The SBBs role is advisory to the state governments on matters relating to biodiversity. It also regulates by granting of approvals or otherwise requests for commercial utilisation or bio-survey and bio-utilisation of any biological resource by Indians.

³⁷ *Id.* Sec. 41. The BMCs are responsible for promoting conservation, sustainable use and documentation of biological diversity including preservation of habitats, conservation of land races, folk varieties and cultivators, domesticated stocks and breeds of animals and microorganisms besides chronicling of knowledge relating to biological diversity.

³⁸ *Suo Motu Action v. State of Bihar*, 2001 S.C.C. Online Patna 377.

³⁹ *T.N. Godavarman Thirumalpad v. Union of India*, (2002) 10 S.C.C. 606.

⁴⁰ *Id.* at 631.

of India,⁴¹ referring to Stockholm Declaration of 1972, Brundtland Report, Rio Earth Summit and the two Rio Conventions – UNFCCC and the CBD – the Supreme Court upheld sustainable development as a balancing concept between ecology and development as part of the customary international law.⁴²

Much of the litigation in that period involved balancing environmental and biodiversity concerns with economic development. Key principles, including precautionary,⁴³ polluter pays,⁴⁴ inter and inter-generational equity,⁴⁵ sustainable development,⁴⁶ and public trust,⁴⁷ became the foundation of the determinative process applied by the Indian judiciary for dispensation of biodiversity justice. Illustrative cases included action of granting approval to Katha factories using raw materials from Khair (*Acacia catechu*) trees in the hill state of Himachal Pradesh,⁴⁸ restrictions and controlled exploitation of the mineral wealth in the biodiversity rich region of Kutch in western India,⁴⁹ delimitation of a sanctuary in the Kutch region for a cement factory,⁵⁰ a ban on catfish cultivation in the state of Kerala was challenged on grounds of infringement upon right to livelihood⁵¹ and protection of dolphins and their synergy with local fishermen to ensure habitat and species protection.⁵²

4. First Phase in Post-Biodiversity Act Period (2002–2010)

India enacted the Biological Diversity Act in 2002 (Biodiversity Act) and Rules in 2004. This period witnessed senior judiciary earn increased credibility through their innovative decisions focused on protecting biodiversity. It is interesting to note that the courts while adjudicating biodiversity issues did not refer directly to the “stand-

⁴¹ *Vellore Citizens Welfare Forum v. Union of India*, (1996) 5 S.C.C. 647. See also *S. Jagannath v. Union of India (Shrimp-Turtle Case)*, (1997) 2 S.C.C. 87.

⁴² *Id.* (Vellore) at 658.

⁴³ *A.P. Pollution Control Board (I) v. Professor M.V. Nayadu*, (1999) 2 S.C.C. 718; *In re Delhi Transport Department*, (1998) 9 S.C.C. 250.

⁴⁴ *Indian Council for Enviro-Legal Action v. Union of India*, (1996) 3 S.C.C. 316; *M.C. Mehta v. Kamal Nath*, (2000) 6 S.C.C. 213.

⁴⁵ See *supra* note 41.

⁴⁶ *M.C. Mehta v. Union of India (Taj Trapezium Case)*, (1997) 2 S.C.C. 353; *Narmada Bachao Andolan v. Union of India*, (2000) 10 S.C.C. 664.

⁴⁷ *M.C. Mehta v. Union of India (Badkal and Surajkund Lakes case)*, (1997) 3 S.C.C. 715.

⁴⁸ *State of Himachal Pradesh v. Ganesh Wood Products*, (1995) S.C.C. (6) 363.

⁴⁹ *Consumer Education and Research Society v. Union of India*, (2000) 2 S.C.C. 599.

⁵⁰ *Ajit D. Padival v. Union of India*, (1996) 1 G.L.R. 382.

⁵¹ *D. Srinivasa Raju v. District Forest Officer*, (2002) (5) A.L.D. 252.

⁵² *Suo Motu action by the High Court in a matter relating to Fresh Water Dolphin*, (2001) 3 P.L.J.R. 655.

alone” Biodiversity Act but frequently acknowledged the CBD.⁵³ However, the period saw the development of biodiversity jurisprudence through two strands of judicial interpretation: first, the constitutionally protected environmental rights discourse, and second, the sectoral legislation protecting the biodiversity with special reference to forests and wildlife.

The “constitutionally protected environmental rights”⁵⁴ discourse resulted in the senior courts passing judgments and orders as “collective biodiversity concerns.” The judicial decisions interpreted matters relating to biological or natural resources, forest cover, illegal mining, destruction of marine life and wildlife as “environment,” all to be read in the light of constitutional mandates. The use of PIL in the interpretation of three constitutional provisions (Arts. 21, 48A and 51A(g)) introduced a paradigmatic shift that helped understanding the value and importance of biodiversity conservation.⁵⁵ Article 21 enshrines the fundamental right to life. This does not simply mean existence but extends to and includes the quality of life. This involves the protection and preservation of the environment, ecological balance free from pollution of air and water, sanitation, without which life cannot be enjoyed.⁵⁶

⁵³ An exception to this is *Gomti Biotech Ltd. v. State of U.P.* (2009 S.C.C. Online All 704). The court went on an exploratory mission to discuss the Biodiversity Act and highlighted the duty of the State to conserve biodiversity and use biological resources in a sustainable manner. It directed the Central Government under Section 36, Biodiversity Act to develop strategies, plans and programs for the conservation, promotion and sustainable usage of biodiversity.

⁵⁴ The “constitutionally protected environmental rights” is a borrowed term. See the interesting chapter by Lavanya Rajamani & Shibani Ghosh, *India in Climate Change Liability: Transnational Law and Practice* 139, 147 (Richard Lord et al., 2012).

⁵⁵ PIL in India was created and implemented by judicial craftsmanship in order to forge new remedies and fashion new strategies by expounding and enforcing Indian constitutional mandates. Environmental PIL is a product of the court’s response to the inaction of the state and to the wrongful action of state agencies with regard to the performance of their statutory duties which have resulted in endangering or in impairing the quality of life of people due to environmental degradation. The proactive judiciary acting as “amicus environment” has developed a new environmental jurisprudence. This has been built on innovative substantive and procedural features, often contrary to the traditional judicial process in human rights and the environment. Substantive changes include the extension of fundamental rights, particularly the right to life, the derivative application of principles of international environmental law and strict compliance with the regulations and standards. Associated procedural expansion has provided a platform for the implementation of these substantive rights. They include a broader understanding of *locus standi*, interpreting letters written to the court as petitions, appointing fact-finding commissions and implementing directions as being continuous mandamus. See Michael G. Faure & A.V. Raja, *Effectiveness of Environmental Public Interest Litigation in India: Determining the Key Variables*, 21 (2) *Fordham Env’tl. L. Rev.* 239 (2010); Geetonjoy Sahu, *Implications of Indian Supreme Court’s Innovations for Environmental Jurisprudence*, 4/1 *LEAD J.* 1 (2008); Lavanya Rajamani, *Public Interest Environmental Litigation in India: Exploring Issues of Access, Participation, Equity, Effectiveness and Sustainability*, 19(3) *J. Env’tl. L.* 293 (2007); *Chhetriya Pardushan Mukti Sangharsh Samiti vs. State of U.P.*, A.I.R. 1990 S.C. 2060; *Subhash Kumar v. State of Bihar*, A.I.R. 1991 S.C. 420; *M.C. Mehta v. Kamal Nath*, (2000) 6 S.C.C. 213; *In re Noise Pollution v. Unknown*, A.I.R. 2005 S.C. 3136; *Delhi Jal Board v. National Campaign for Dignity and Rights of Sewerage and Allied Workers*, (2011) 8 S.C.C. 574; *State of Uttaranchal v. Balwant Singh Chauhal*, (2010) 3 S.C.C. 402.

⁵⁶ *Virender Gaur v. State of Haryana*, (1995) 2 S.C.C. 577; *Francis Coralie v. Delhi Administration*, A.I.R. 1981 S.C. 746.

Article 48A, a directive principle of state policy, mandates the state to protect and improve the environment and safeguard forests and wildlife. Article 51A(g) imposes a fundamental duty on every citizen to protect and improve the natural environment including forests, lakes, rivers, and wildlife and have compassion for creatures. The social obligation under Article 51A(g) broadened the scope to permit public-spirited citizens, interested institutions and NGOs to file and advance PILs for biodiversity conservation thereby relaxing the standing requirement.⁵⁷

Importantly, the Supreme Court gave effect to Articles 21, 48A and 51A(g) by citing them as mutually complementary and, in appropriate cases, has issued directions in biodiversity cases. A duty cast on the state under Article 48A is to be read as conferring a corresponding right on citizens under Article 51A(g), though couched in the language as “duty” and, therefore, the right to life under Article 2a (fundamental right) must be read to include the same within its ambit. In *Intellectuals Forum Tirupathi v. State of A.P.*⁵⁸ the Supreme Court observed:

the environmental protection and conservation of natural resources has been given a status of a fundamental right and brought under Article 21 of the Constitution of India. This apart, Articles 48A and 51A(g) are fundamental in the governance of the country and require the state to apply these principles in making laws and further these two articles are to be kept in mind in understanding the scope and purport of the fundamental rights guaranteed by the Constitution including Article 21.⁵⁹

In *T.N. Godavarman v. Union of India*⁶⁰ the Supreme Court held there is a constitutional imperative to preserve and enhance forest cover as a natural gene pool reserve. India's biodiversity is reflected in the heterogeneity of its forest cover. The preservation of ecosystems, species and all varieties of life needs to be managed for both present and future generations. Subsequently, a series of significant orders were passed under *Godavarman's case* that included forest management planning, no non-forestry activity in a national park or wildlife sanctuary, and a ban on felling trees and timber.

Constitutionally protected environmental rights discourse is reflected in several other biodiversity related judgments. These are characterised as the right to “protection and preservation of nature's gifts”;⁶¹ “protecting material biological resources and people's right to enjoy life”;⁶² “nature's bounty, maintain ecological balance and need

⁵⁷ See *supra* notes 26 & 55.

⁵⁸ (2006) 3 S.C.C. 549.

⁵⁹ *Id.* at 576.

⁶⁰ (2006) 1 S.C.C. 1.

⁶¹ *M.K. Janardhanam v. District Collector*, 2002 S.C.C. Online Madras 494.

⁶² *Shailesh R. Shah v. State of Gujarat*, 2002 S.C.C. Online Gujarat 164.

to be protected”;⁶³ “inter-relationship between environment, forests and wildlife and their protection”;⁶⁴ and “ecology and environment protection for human existence.”⁶⁵

The recognition of the importance and urgency of biodiversity conservation is reflected in the pragmatic discourse in the senior courts especially when these resources are not renewable, and the outcome is irreversible. Thus, the judicial lexicon of interpretation preserved the link between life and healthy biodiversity and successfully placed human rights (in the Indian context, a fundamental right) within the biodiversity discourse.

The second strand observed “sectoral” legislation, namely how the forests and wildlife laws played a major role in biodiversity litigation. The primary forests legislation includes the “colonial” Indian Forest Act 1927 and the Forest (Conservation) Act 1980. The framework of the Forest Act 1927 consolidated the forest laws, regulated the transit of forest produce and the duty leviable on timber and other forest produce. The 1927 Act divides forests into reserved, protected and village forests. Forest departments and authorities were established in every state to regulate forest areas and activities. These responsibilities include protecting against encroachment and illegal forest felling; prohibiting certain activities including grazing, cultivation, charcoal burning and stone quarrying; and imposing penalties for offences committed under the Act. The 1980 Forest (Conservation) Act was a response to the decline in forest cover that was creating ecological imbalance and environmental degradation. The 1980 Act prohibits the de-reservation of forests and use of forest land for non-forest purposes. The Act prohibits the cutting of forest trees without prior clearance approval from central Government. The Wildlife (Protection) Act 1972 covers plants, wild animals, and their habitat. The 1972 Act adopts a two-fold conservation strategy: protecting specified endangered species regardless of location, and all species in designated areas called sanctuaries and national parks. The Act established Wildlife Advisory Boards and appointed Wildlife Wardens to implement the Act.

Approaching the courts via sectoral legislation was litigants’ preferred plaintiff option. The reason being local communities played an important role in managing the forests and wildlife alongside the state authorities. For example, the joint forest management programme involved the local communities in partnership with the government forest department through joint committees to conserve the degraded forests.⁶⁶ The local context became important as it was easier for communities to interact with the forest staff and file complaints if they encountered ecological threats covered by specific forest or wildlife laws.⁶⁷ Accordingly, the senior courts entertained

⁶³ *Vijay S. Punia v. Rajasthan State Board for Water*, 2003 S.C.C. Online Rajasthan 29.

⁶⁴ *State of Gujarat v. Mirzapur Moti Kuresh*, (2005) 8 S.C.C. 534.

⁶⁵ *P. Krishnam Raju v. District Collector*, 2002 S.C.C. Online A.P. 346.

⁶⁶ Neema Pathak & Ashish Kothari, *Indigenous Community Conserved Areas: The Legal Framework in India*, IUCN-EPLP No. 81 (2009) (Mar. 10, 2021), available at https://www.iucn.org/downloads/india_3.pdf.

⁶⁷ *Id.*

cases and provided appropriate relief under sectoral legislation. For example, in *Suo Moto v. State of Karnataka*,⁶⁸ the High Court of Karnataka took cognizance of the unexplained death of elephants in the Mysore forest area. Referring to Articles 48A and 51A(g) of the Indian Constitution, the court observed that it is the obligation of society to ensure the conservation and welfare of the animal world by maintaining an ecological balance. The court adjudicated the matter under the Wildlife Act 1972⁶⁹ and directed the appointment of a Task Force expert committee for the conservation of elephants as they represent the ancient cultural heritage of the state of Karnataka. The terms of reference of the Task Force included the issues related to human-elephant conflict in Karnataka and suggest recommendations for an effective conservation and management regime for the species and its habitat with focus on the participation of local communities. The Task Force recommended short-term⁷⁰ and long-term measures⁷¹ based on a zone-based approach that included an elephant conservation zone, elephant-human coexistence zone, and an elephant removal zone. Interestingly, the court did not refer to the Biodiversity Act although it did state the survival of human species was dependant on the protection of biodiversity. The court observed:

biodiversity is not only vital for the functioning of the ecosystem but for the survival of humans. Elephants are inseparable entities of biodiversity and are considered “key stone species” in the Indian jungles.⁷²

In *P.K. Fravesh v. State of Karnataka*⁷³ the Court followed a similar trajectory by banning night traffic in the core area of a tiger reserve. In arriving at this conclusion, it undertook an extensive discussion of wildlife species protection in the context of the Wildlife Act 1972 (Arts. 48A and 51A(g)). However, there was no reference to the Biodiversity Act.

Similarly, in *Balan v. Kesavan*⁷⁴ the Kerala High Court considered a land ownership challenge under the Kerala Forest Ecologically Fragile Land (Vesting and Management) Act, 2003.⁷⁵ The Act 2003 mandates the State Government of

⁶⁸ (2009) S.C.C. Online Kar 789.

⁶⁹ Wildlife Act, 1972, Secs. 6, 21, 29, 33-A & 34.

⁷⁰ Short-term measures included habitat management, immunisation of cattle, translocation of elephants, maintenance of barriers, flying squads, law enforcement and awareness programmes.

⁷¹ Long term measures envisaged reducing biotic pressure, integrated land use planning, wild elephant population management and capacity building of forest staff.

⁷² See *supra* note 69, para 58.

⁷³ I.L.R. 2010 K.A.R. 3729; see also *Cattle Remedies v. Licensing Authority/Director of Ayurveda and Unani Sciences*, 2007 (2) A.W.C. 1093.

⁷⁴ (2006) S.C.C. Online Ker 372.

⁷⁵ The Preamble of the Act states: “where the earth’s biological resources with their intrinsic ecological, genetic, economic, social, cultural, scientific, educational, recreational and aesthetic values are global assets and public trust vital to the sustained economic and social development, maintenance of ecological balance and the very existence of humanity.”

Kerala through the forest department to manage ecologically fragile land in forest areas with a view to maintaining ecological balance and conserving the biodiversity. The court stated the land in question was vested in the State by operation of law. However, it failed to appreciate and refer to the provisions of the Biodiversity Act to determine ecological fragility and endemic species in the forest land. The relevance of the NBA and SBB was ignored.

Parallels are drawn with *People for Ethical Treatment of Animals v. Commissioner, Brihan Mumbai Mahanagarpalika*.⁷⁶ The Mumbai High Court acknowledged the deplorable conditions experienced by the animals in Byculla Zoo, Mumbai. Referring to the Wildlife Act 1972 and the Recognition of Zoo Rules 1992 and Article 51A(g) of the Constitution of India, the court reminded the authorities to follow the mandate of conservation of the wildlife as it is the duty of every citizen to show compassion for "living creatures." It directed the establishment of a Monitoring Committee to review the conditions in the zoo and suggest measures for improvement. The Monitoring Committee included experts from Central Zoo Authority, Bombay Natural History Society, People for Ethical Treatment of Animals and Mr. Bittu Sehgal an eminent environmentalist. Accordingly, the Monitoring Committee recommended short and long term measures that included improvement to the zoological park, upgrading and enlargement of animal enclosures, reduction of noise levels in the zoo, recording the relevant biological information of the animals in the zoological park, and strictly following disinfection schedules in animal enclosures and feeding cubicles. However, neither the petitioner nor the court referred to the Biodiversity Act nor to the NBA or the SBB.

Hydroelectric power projects in biodiversity rich areas have been litigated in the High Courts. In *Athup Lepcha v. State of Sikkim*⁷⁷ a PIL was filed in the Sikkim High Court challenging the environmental and forest clearances given for the construction of the Teesta Stage III hydroelectric project. The petitioners argued that Sikkim is a biodiversity hotspot with many native medicinal plants and herbs in the forest. The proposed project was to be undertaken in the biosphere reserve area and the Khanchenzonga National Park. The petitioners challenged the project as it amounted to exploiting the region's biodiversity contrary to the Forest (Conservation) Act 1980 read with the Environment Protection Act 1986. The Court rejected the petitioners' argument and relied on the findings of the expert Forest Advisory Committee under the Forest Act 1980. The Forest Advisory Committee while giving approval to the project considered several aspects including green-belt development, biodiversity conservation, wildlife management, creating ambient air quality, compensatory afforestation, and social upliftment programmes. Surprisingly, the Court did not refer to the Biodiversity Act or involve the regulatory bodies NBA or SBA despite the petitioners alleging violation under the Biodiversity Act.⁷⁸

⁷⁶ (2005) S.C.C. Online Bom 822.

⁷⁷ MANU/SI/0026/2010.

⁷⁸ *Id.* See also *Nar Bahadur Bhandari v. State of Sikkim*, MANU/SI/0023/2010.

The above discussion underlines two important points. First, the wider understanding of biodiversity was limited to the discourses of forest laws and wildlife protection. This limitation was a consequence of the decisions of local and community litigants whose preferred approach to the court was based on specific rather than broad biodiversity legislation. However, this does not imply that the courts were unaware of the importance of conservation of biodiversity. The courts directed the appointment of expert and monitoring committees that gave expert testimony and suggested measures to secure biodiversity conservation under specific legislation.

Second, the “stand-alone” general legislation being the Biodiversity Act, mirrors the significant challenges created by the numerous incidences of legal fragmentation. Fragmentation in the field of international environmental law has generated a body of active academic literature including attempts to conceptualise or bridge fragmentation.⁷⁹ It can be referred to as

on the one hand an increased thematic specialization, for example, in regulation specifically addressing forests, and on the other hand diversification in international [national] governance arrangements, where many regulations may have a bearing in a specific situation.⁸⁰

In the Indian context, the isolation and disconnect between forests, wildlife and biodiversity laws may lead to conflict between norms and divergent institutional responses.⁸¹ The “multiplicity of institutional arrangements, and consequently the overlapping of regimes”⁸² can challenge the coherence of biodiversity governance. There is a pressing need to explore “open legal spaces for synergies even when possibilities for mutual support are not stated”⁸³ as part of institutional and judicial responses. Improved institutional coordination facilitates judicial creativity by substantively interlinking areas of biodiversity laws. This provides

⁷⁹ Harro van Asselt, *Managing the Fragmentation of International Environmental Law: Forests at the Intersection of the Climate and Biodiversity Regimes*, 44(4) N.Y.U. J. Int'l L. & Pol. 1205 (2012); Edith Brown Weiss, *International Environmental Law: Contemporary Issues and the Emergence of a New World Order*, 81(3) Geo. L.J. 675 (1993); Cinnamon P. Carlarne, *Good Climate Governance: Only a Fragmented System of International Law Away?*, 30(4) Law & Pol'y 450 (2008); Frank Biermann et al., *The Fragmentation of Global Governance Architectures: A Framework for Analysis*, 9(4) Glob. Environ. Pol. 14 (2009).

⁸⁰ Claudia Ituarte-Lima et al., *Incorporating International Biodiversity Law Principles and Rights Perspective into the European Union Timber Regulation*, 19(3) Int. Environ. Agreem. 255, 257 (2019). See Harro van Asselt, *Dealing with the Fragmentation of Global Climate Governance: Legal and Political Approaches in Interplay Management Global Governance*, Global Governance Working Paper No. 30 (May 2007) (Mar. 10, 2021), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1335082. Asselt defines fragmentation as “the implications of increased specialization and diversification in international governance arrangements, including the overlap of substantive rules and jurisdictions.”

⁸¹ See *infra* section on access and benefit sharing.

⁸² See van Asselt, *supra* note 80, at 2.

⁸³ See Ituarte-Lima et al. 2019, at 257.

an opportunity to examine overlapping mandates more closely and to begin structuring new mechanisms for addressing these issues in a comprehensive, joined-up manner.⁸⁴

This legal coordination will contribute to improved biodiversity jurisprudence and governance.

5. Second Phase in Post-Biodiversity Act Period (2010–2020)

The last decade witnessed a considerable expansion of biodiversity litigation. In addition to the senior courts, the establishment of the National Green Tribunal (NGT) in 2010 as a specialised body has changed and is continually evolving the environmental jurisprudential landscape in India.⁸⁵ The Biodiversity Act is included in Schedule I of the NGT Act, thus giving the NGT jurisdiction as a court of first instance on biodiversity litigation. The tribunal is empowered to decide civil cases relating to environmental protection and the conservation of forests and other natural resources (including the enforcement of any legal right relating to the environment) and to give relief and compensation for damages to persons and property.

The NGT is a forum that offers greater plurality for environmental including biodiversity justice. It is equipped with the necessary expertise to handle environmental and biodiversity disputes involving multi-disciplinary issues. Experts are “central,” not “marginal,” to the NGT’s normative structure.⁸⁶ Experienced scientists, practising ecologists and natural resource managers are considered experts.⁸⁷ The engagement of the NGT’s scientific experts in the decision-making process is akin to Peter Haas⁸⁸ theoretical concept of “epistemic communities” operating within an environmental regime.

⁸⁴ Carlarne 2008, at 471.

⁸⁵ See Nain Gill, *Environmental Justice in India*, *supra* note 26; Nupur Chowdhury & Nidhi Srivastava, *The National Green Tribunal in India: Examining the Question of Jurisdiction*, 21(2) Asia Pac. J. Env’tl. L. 190 (2018); Sudha Shrotria, *Environmental Justice: Is the National Green Tribunal of India Effective?*, 17(3) Env’tl. L. Rev. 169 (2015).

⁸⁶ Gitanjali Nain Gill, *Environmental Justice in India: The National Green Tribunal and Expert Members*, 5(1) Transnatl. Env’tl. L. 175 (2016).

⁸⁷ Michael Drescher et al., *Toward Rigorous Use of Expert Knowledge in Ecological Research*, 4(7) Ecosphere 1 (2013).

⁸⁸ Peter M. Haas, *Epistemic Communities, Constructivism, and International Environmental Policy* (2016); Peter M. Haas, *Ideas, Experts and Governance in The Role of ‘Experts’ in International and European Decision-Making Processes* 19 (Monika Ambrus et al. eds., 2014); Peter M. Haas, *Epistemic Communities in Oxford Handbook of International Environmental Law* 791 (Daniel Bodansky et al. eds., 2007). Haas at 793 describes distinctive features of “epistemic communities as: knowledge-based experts with an authoritative claim to policy relevant knowledge within their domain of expertise. Their members share knowledge about the causation of ... phenomena ... and a common set of normative beliefs about what actions will benefit human welfare in such a domain.”

The benefit of this multi-faceted, multi-skilled body produces a coherent and effective institutional mechanism to apply complex laws and principles in a uniform and consistent manner while simultaneously reshaping the approach to solve the environmental and biodiversity problem at its source rather than being limited to predetermined remedies. The combination of legal, scientific, and technical expertise has a dynamic impact on the content and development of environmental and biodiversity policies and law.⁸⁹

The NGT is mandated to pass orders, make decisions and awards in conformity with sustainable development, and the precautionary and polluter pays principles.⁹⁰ It has developed and expanded its procedures and powers in its commitment to resolve biodiversity disputes. For example, the adoption of an on-spot investigative procedure involving the inspection of affected sites by expert members allows the comparison of contradictory claims, positions and reports filed by the parties.⁹¹ The stakeholder consultative process engages the diversity of stakeholders, ensures effective information sharing and employs techniques that help the submission of time-bound, clear-cut proposals and suggestions for the effective enforcement of environmental laws.⁹² It's applicable to cases of wider ramification involving PAN-India issues such as river cleaning. The use of *suo-motu* ("on its own motion") is an integral part of the NGT for better and effective functioning of the institution.⁹³

The following cases are illustrative of a new launchpad for biodiversity litigation in India. They include:

5.1. Definitional Issues

The Biodiversity Act defines biological resources as

plants, animals and microorganisms or parts thereof, their genetic material and by-products (excluding value added products) with actual or potential use or value, but does not include human genetic material.⁹⁴

⁸⁹ See Nain Gill 2016; Gitanjali Nain Gill, *The National Green Tribunal of India: Decision-Making, Scientific Expertise and Uncertainty*, 29(2-3) *Envtl. L. Mgmt.* 82 (2017).

⁹⁰ NGT Act, 2010, Sec. 20.

⁹¹ See Nain Gill, *Environmental Justice in India*, *supra* note 26, at 166; *Ministry of Environment and Forests v. Nirma Ltd.*, Supreme Court, 4 August 2014.

⁹² *Id.* at 167–168; *Manoj Mishra v. Union of India*, NGT Judgment, 13 January 2015; *Vardhaman Kaushik v. Union of India* and *Sanjay Kulshrestha v. Union of India*, NGT Order, 7 April 2015; see also Usha Tandon, *Assessing India's Green Tribunal for Conservation of Biodiversity in Biodiversity: Law, Policy and Governance* 200, 215 (Usha Tandon et al. eds., 2018).

⁹³ *EAS Sarma v. Union of India*, Order, 1 June 2020.

⁹⁴ Biodiversity Act, Sec. 2(c).

The Uttarakhand High Court in *Divya Pharmacy v. Union of India*⁹⁵ recognised “Yarsagumba” (local name “Keera Jadi”), a herb in the Himalayan region as a biological resource.⁹⁶ It constitutes a main ingredient and raw material in the manufacture of ayurvedic products.

In *Biodiversity Management Committee v. Western Coalfields*,⁹⁷ the issue before the NGT was whether coal should be treated as a bio-resource. The BMC of village Eklehara District Chhindwara in Madhya Pradesh contended that the subsidiaries of Coal India Limited were extracting coal, “a biological resource,” from mines within its jurisdiction without obtaining the approval for commercial utilisation or sharing the benefits.⁹⁸ The coal companies argued coal is not a “biological resource” and did not require approval or involve benefit sharing under the Biodiversity Act. The tribunal upheld the coal companies and observed that coal has no capacity to grow, reproduce or evolve. It is without a genetic structure and is “neither a genetic material nor a genetic resource” and therefore, is not a biological resource.⁹⁹

*Lilason Breweries Ltd. v. Madhya Pradesh State Biodiversity Board*¹⁰⁰ also illustrates the bio-resource issue. The legal question was whether malt, a raw material, used in the manufacture of beer can be classified as a bio-resource. The Madhya Pradesh SBA argued that malt is a by-product of a plant and therefore must be regarded as a bio-resource. However, the NGT rejected the position of the Madhya Pradesh SBA. The interpretation led to incomplete, discordant opinion amongst the regulatory authorities and the alcohol industry.¹⁰¹ In the wastepaper case,¹⁰² the Uttarakhand High Court refrained from giving its opinion on whether wastepaper comes within the ambit of the legal definition of biological resources in the Biodiversity Act.¹⁰³

⁹⁵ 2018 S.C.C. Online Utt 1035.

⁹⁶ *Id.* para. 93.

⁹⁷ NGT Judgment, 16 October 2015.

⁹⁸ Kanchi Kohli & Shalini Bhutani, *Legal Meaning of Biodiversity*, 48(33) Econ. Polit. Wkly 15 (2013); Shashikant Trivedi, *Is Coal a Mineral or Bio-Resource?*, Business Standard, 12 September 2013 (Mar. 10, 2021), available at https://www.business-standard.com/article/economy-policy/is-coal-a-mineral-or-bio-resource-113091100946_1.html.

⁹⁹ *Biodiversity Management Committee v. Western Coalfields*, para. 40.

¹⁰⁰ NGT Judgment, 28 May 2013.

¹⁰¹ Shalini Bhutani & Kanchi Kohli, *Litigating India's Biological Diversity Act: A Study of Legal Cases*, Kalpavriksh Environmental Action Group (November 2016) (Mar. 10, 2021), available at <https://counterview1.files.wordpress.com/2016/12/bd-litigating-report-final-5-12-2016.pdf>. See also Divyanshu Priyadarshi et al., *Biological Resources Under the Biological Diversity Act: The Ambit in Handbook on Biodiversity Laws, Access and Benefit Sharing* 112 (2019).

¹⁰² *M/s Naini Papers v. State of Uttarakhand High Court*, 2 June 2016.

¹⁰³ Bhutani & Kohli, *supra* note 101, at 18.

5.2. Conservation of Biodiversity

The courts now recognise and consider nature and inanimate objects as within the biodiversity justice mandate. This is an emerging area whereby a “nature-centred” or “eco-centric” approach is advanced by the judiciary. The Supreme Court in *Centre for Environment Law, WWF-Iv. Union of India*¹⁰⁴ adopted a “species best interest standard” to the long-term survival and *ex situ* protection of Asiatic lions. It advanced the eco-centric approach wherein nature includes both humans and non-humans. The humans have a duty to prevent the species from becoming extinct and should promote effective species protection regimes. The Supreme Court ordered the translocation of Asiatic lions from an existing habitat to an alternative suitable habitat and observed:

We must focus our attention to safeguard the interest of species, as species has equal rights to exist on this earth. Asiatic lion has become critically endangered because of human intervention. Today the only living representatives of the lions once found throughout much of South-West Asia occur in India's Gir Forest. Asiatic lion currently exists as a single sub-population and is thus vulnerable to extinction from unpredictable events, such as an epidemic or large forest fire etc. and we are committed to safeguard this endangered species because this species has a right to live on this earth, just like human being. The cardinal issue is not whether the Asiatic lion is a “family member” or is part of the “Indian culture and civilization,” or the pride of a State but the preservation of an endangered species for which we have to apply the “species best interest standard.” Our approach should not be human-centric or family-centric but eco-centric. Scientific reasoning for its re-location has to supersede the family bond or pride of the people and we have to look at the species best interest especially in a situation where the specie is found to be a critically endangered one and the necessity of the second home has been keenly felt.¹⁰⁵

Similarly, in *Animal Welfare Board of India v. A. Nagaraja*¹⁰⁶ the Supreme Court applied an eco-centric approach to recognise the rights of animals and banned the use of bulls as performing animals for Jallikattu events or bullock-cart races. Couched in the language of fundamental duty under Article 51A(g) and (h) of the Constitution of India, the court stated:

citizens should, therefore, develop a spirit of compassion and humanism ... to look after the welfare and well-being of the animals and the duty to

¹⁰⁴ (2013) 8 S.C.C. 234. The court referred to the CBD and domestic laws while examining the necessity of a second home for Asiatic lions.

¹⁰⁵ *Id.* paras. 40 & 49.

¹⁰⁶ (2014) 5 S.C.C. 547.

prevent the infliction of pain or suffering on animals highlights the principles of humanism in Article 51A(h).¹⁰⁷

*Goa Foundation v. Union of India*¹⁰⁸ relates to the conservation and protection of the Western Ghats, a World Heritage Site. The Western Ghats are a treasure trove of biological diversity and recognised as a global “hotspot of biodiversity.” They are a repository of endemic, rare and endangered flora and fauna. The Ghats are areas of major plantations including tea, coffee, rubber, and various spices. A case was filed by two NGOs: Goa Foundation and the Peaceful Society, Goa. They sought directions requiring the state government to conserve and protect the Western Ghats, as requested by the Western Ghats Ecology Expert Panel 22 (WGEEP). The Union argued the NGT lacked jurisdiction to issue directions as the WGEEP report was pending for consideration before the Ministry of Environment and Forests. Accepting the contention of the NGOs, the Tribunal observed that the authorities were required to maintain and ensure biodiversity equilibrium in the Ghats. Non-performance of the statutory obligation attracted the jurisdiction of the Tribunal under the NGT Act.

It is argued that the state took a position detrimental to the conservation of the Western Ghats. Instead of opposing the petition on the ground of jurisdictional error, the state should have used it as an opportunity to develop and apply the principle of eco-centrism as opposed to anthropocentrism. The adoption of an eco-centric approach would have prioritised and encouraged the development and enforcement of species protection law in the discourse of biodiversity conservation, or what some scholars and green environmentalists’ term “ecological justice.”¹⁰⁹

Similarly, in *Rohit Chaudhary v. Union of India*¹¹⁰ the NGT allowed an application against unregulated quarrying and illegal mining activities permitted in and around the Kaziranga National Park. The national park is not only a tiger reserve under the provisions of the Wildlife (Protection) Act 1972, but also a UNESCO World Heritage Site. In a strongly worded observation, the NGT stated the callous and indifferent attitude by the authorities and infringement of law had led to unregulated and illegal activities in and around the national park that threatened the biodiversity, eco-sensitive zone, and ecology. The Tribunal directed the authorities to close the illegal activities with immediate effect.

In *Forward Foundation v. State of Karnataka*¹¹¹ the NGT admitted an application filed by an NGO, Forward Foundation, committed to protecting the ecology and

¹⁰⁷ *Animal Welfare Board of India v. A. Nagaraja*, paras. 57 & 58.

¹⁰⁸ NGT Judgment, 18 July 2013.

¹⁰⁹ Brad Jessup, *The Journey of Environmental Justice Through Public and International Law in Environmental Discourses in Public and International Law* 65 (Brad Jessup & Kim Rubenstein eds., 2012).

¹¹⁰ NGT Judgment, 7 September 2012.

¹¹¹ NGT Judgment, 7 May 2015.

biodiversity in the State of Karnataka. The principal grievance related to commercial projects being developed by the builders without prior environmental clearance on the wetlands and catchment areas of the Agara and the Bellandur Lakes. NGT expert members visited the site to make an informed judgment of facts and place their findings before the Tribunal. Based on their scientific reports and Google satellite images, the NGT found there was a possibility of the ecology, lakes and wetlands being adversely affected. The Tribunal restrained the projects and observed:

wetlands are amongst the most productive ... they are also ecologically sensitive and adaptive systems. "Free" services provided by wet-lands are often taken for granted, but they can easily be lost as wetlands are altered or degraded in a watershed.¹¹²

Such judgments reflect a move towards a new understanding of biodiversity conservation by emphasising species existence and conservation. It is especially important for countries such as India, where apart from having serious implications for distributive justice, eco-centric morality has been eroded in the quest for economic prosperity.

However, a different note was struck in the much publicised and controversial case of *Manoj Misra v. Delhi Development Authority*.¹¹³ The Art of Living (AOL) Foundation was directed to pay Rupees 5 crores (£500,000) as an interim environmental fine for allegedly damaging the Yamuna floodplains by organising a world cultural festival. Floodplains act as aquifers and provide a habitat for riparian plants and animals and create wetlands for the biological cleaning of wastewater. The festival was attended by Prime Minister Modi and his cabinet. It is suggested that the NGT backed down and allowed the festival to take place despite its earlier 2015 order wherein it mandated that no activity should take place on the floodplain. Permission to allow the event was a consequence of delay on the part of the applicant to approach the NGT – a case of *fait accompli* – as AOL had substantially completed the construction work on the floodplain. The NGT failed to enforce its orders against AOL.

The AOL episode exposes a weakness in India's environmental regulatory system, demonstrating the willingness of authorities to bend rules at the dictate of the affluent and influential. The NGT's *fait accompli* argument was disconcerting and turns back the clock. The environmental compensation cost only works if payment is enforced and is sufficiently punitive to act as a deterrent. The NGT, normally a pillar of strength, within this national controversy should have been bold and set an exemplar by demonstrating its independence and freedom from external, high-level pressure.

¹¹² *Forward Foundation v. State of Karnataka*, para. 56.

¹¹³ 2017 S.C.C. Online NGT 966; see also Gitanjali Nain Gill, *Environmental Protection and Developmental Interests: A Case Study of the River Yamuna and the Commonwealth Games, Delhi 2010*, 6(1/2) Int'l J. L. Built Env't 69 (2014).

5.3. Current and Future Challenges

India's response to the cross-sectoral nature of complex biodiversity issues, incorporating economic development policies, is an ongoing challenge. Unsustainable use of natural resources not only undermines the resilience of ecosystems, also there are direct and indirect implications for health and living standards. Pre-planning for biodiversity issues through policy interventions and financial commitments at the project-planning stage of development projects is an important way to minimise adverse environmental impacts. For example, in *Narmada Khand Swabhiman Sewa v. Madhya Pradesh*¹¹⁴ the NGT expert judge suggested the introduction of a policy change to integrate aspects of biodiversity protection and commercial activities in the Biosphere Reserves.¹¹⁵ It was claimed the policy should critically assess sustainability, accompanied by a set of related quantitative, qualitative or descriptive attributes by preparing a detailed landscape plan and environmental impact assessment based on the principle of precaution and sustainable development. The NGT observed:

BRs are thus special environments for both people and nature and are living examples of how human beings and nature can co-exist while respecting each other's needs. The world's major ecosystem types and landscapes are represented in this network. Here there is no bar on utilization of natural resources, provided they do not have any adverse effect on the ecological diversity. However, these economic uses should be characteristic of the region in the buffer and transition zones and should be in consonance with the site conditions giving more emphasis on rehabilitation of the area and restoring the ecology in a way that it turns to sustainable productivity and must involve the local communities besides utilizing the natural resources in a rational and responsible manner and for the well-being of the local people besides contributing to economic development of the nation.¹¹⁶

In *K.D. Kodwani v. District Collector*¹¹⁷ and *Tulsi Advani v. State of Rajasthan*¹¹⁸ the Tribunal emphasised the need to consider the translocation of trees as an alternative to felling them. Factors including project feasibility assessment, species consideration, site identification and weather conditions would determine the feasibility of translocation. The NGT observed that trees are the foundation species of the forest. No doubt, translocation is an expensive proposition, but it must be given due weight

¹¹⁴ NGT Judgment, 1 October 2014.

¹¹⁵ Biosphere reserve is a UNESCO international designation for representative parts of natural and cultural landscapes extending over large areas of terrestrial or coastal/marine ecosystems or a combination thereof.

¹¹⁶ NGT Judgment, 1 October 2014, para. 27.

¹¹⁷ NGT Judgment, 25 August 2014.

¹¹⁸ NGT Judgment, 19 February 2015.

for biodiversity protection. In October 2020, Delhi became the first Indian state to adopt the “Tree Transplantation Policy”¹¹⁹ to protect and conserve biodiversity.

A challenge faced by the NGT is the adjudication of wildlife cases. The Wildlife (Protection) Act 1972 is not listed under Schedule 1 of the NGT Act and therefore the Tribunal had no statutory jurisdiction to adjudicate these matters. However, the NGT in *Tribunal on its Own Motion v. Secretary of State*¹²⁰ created an exception by entertaining the matter relating to movement of tigers and the operation of mining activities close to their wildlife habitats. The tribunal stated wildlife in a particular ecosystem is a part of the “environment.”¹²¹ Any action that causes damage to the wildlife, or that is likely to lead to damage to wildlife, falls within the purview of the tribunal.

5.4. Personhood to Biological Entities

The Uttarakhand High Court in *Mohd. Salim v. State of Uttarakhand*¹²² declared

the rivers Ganga and Yamuna, all their tributaries, streams, every natural water flowing with flow continuously or intermittently of these rivers as juristic/legal persons/living entities having status of legal person with all corresponding rights, duties and liabilities of a living person.¹²³

From a spiritual ecology perspective, the court described

Hindus have deep Astha [faith] in rivers Ganga and Yamuna and they collectively connect with these rivers.¹²⁴

¹¹⁹ Delhi Cabinet gives nod for ‘Tree Transplantation Policy’; *The Hindu*, 30 May 2020 (Mar. 10, 2021), available at <https://www.thehindu.com/news/cities/Delhi/delhi-cabinet-gives-nod-for-tree-transplantation-policy/article32817172.ece>.

¹²⁰ NGT Judgment, 4 April 2014.

¹²¹ Section 2(c) of the NGT Act defines “environment” to include water, air and land and the inter-relationship which exists among and between water, air and land and human beings, other living creatures, plants, micro-organisms and property. See a contrary decision *Sachin v. State of Maharashtra*, NGT Judgment, 25 March 2014.

¹²² 2017 S.C.C. Online Utt 367.

¹²³ *Id.* para. 19. See generally Martuwarra RiverOfLife et al., *Recognizing the Martuwarra’s First Law Right to Life as a Living Ancestral Being*, 9(3) *Transnatl. Envntl. L.* 541 (2020); Elizabeth Macpherson et al., *Constitutional Law, Ecosystems, and Indigenous Peoples in Colombia: Biocultural Rights and Legal Subjects*, 9(3) *Transnatl. Envntl. L.* 521 (2020); Laura Schimmoller, *Paving the Way for Rights of Nature in Germany: Lessons Learnt from Legal Reform in New Zealand and Ecuador*, 9(3) *Transnatl. Envntl. L.* 569 (2020); Paola Villavicencio Calzadilla & Louis J. Kotzé, *Living in Harmony with Nature? A Critical Appraisal of the Rights of Mother Earth in Bolivia*, 7(3) *Transnatl. Envntl. L.* 397 (2018); Louis J. Kotzé & Paola Villavicencio Calzadilla, *Somewhere Between Rhetoric and Reality: Environmental Constitutionalism and Rights of Nature in Ecuador*, 6(3) *Transnatl. Envntl. L.* 401 (2017); Catherine J. Iorns Magallanes, *Reflecting on Cosmology and Environmental Protection: Maori Cultural Rights in Aotearoa New Zealand in Research Handbook on Human Rights and the Environment* 274 (Anna Grear & Louis J. Kotzé eds., 2015).

¹²⁴ See an interesting article by Kelly D. Alley, *River Goddess, Personhood and Rights of Nature: Implications for Spiritual Ecology*, 10(9) *Relig.* 502 (2019).

Additionally, the High Court advocated that the government is bound to promote the physical and ecological properties of the river. To quote,

rivers Ganga and Yamuna are central to the existence of half of Indian population and their health and well-being. The rivers have provided both physical and spiritual sustenance to all of us from time immemorial. Rivers Ganga and Yamuna have spiritual and physical sustenance. They support and assist both the life and natural resources and health and well-being of the entire community. Rivers Ganga and Yamuna are breathing, living, and sustaining the communities from mountains to sea.¹²⁵

Director NAMAMI Gange, Chief Secretary and the Advocate General, from the State of Uttarakhand were declared loco parentis of the Rivers Ganga and Yamuna. The judgment drew criticism¹²⁶ as the court did not elucidate the consequences of granting legal personhood to these rivers. Soon thereafter this judgement was stayed by the Supreme Court.¹²⁷

Again, the Uttarakhand High Court in *Lalit Miglani v. State of Uttarakhand*¹²⁸ declared that the Himalayas, glaciers, streams and other water bodies like natural springs, as legal entities and juristic persons alongside rivers Yamuna and Ganga. These entities maintain their own vital ecosystem and are scientifically and biologically living.¹²⁹ Local inhabitants living on the banks of the river or lakes have a duty to protect the river ecosystem and their involvement in the regulation of the river ecosystem was sought by giving them representation in the governance of these entities. The Supreme Court again stayed the implementation of this judgment.

It is interesting to note that in both cases the Uttarakhand High Court recognised the rights of the rivers and glaciers by validating the "Hindu notion of deities as juristic persons"¹³⁰ based on "faith and morality."¹³¹ However, these judgments "reveal a lack of engagement or substantive discussion"¹³² of the rights of nature discourse as

¹²⁵ 2017 S.C.C. Online Utt 367, para. 17.

¹²⁶ Shibani Ghosh, *The River as Being*, *The Hindu*, 27 March 2017 (Mar. 10, 2021), available at <https://www.thehindu.com/opinion/op-ed/the-river-as-being/article17668210.ece>; Chandan B.R. Reddy, *Legal Personality to Rivers: An In-Depth Analysis*, *Acclaims* (August 2018) (Mar. 10, 2021), available at <http://www.penacclaims.com/wp-content/uploads/2018/09/Chandan-BR-Reddy.pdf>.

¹²⁷ 2017 S.C.C. Online S.C. 903.

¹²⁸ 2017 S.C.C. Online Utt 392.

¹²⁹ *Id.* para. 51.

¹³⁰ See *supra* note 125.

¹³¹ Stellina Jolly & K.S. Roshan Menon, *Of Ebbs and Flows: Understanding the Legal Consequences of Granting Personhood to Natural Entities in India*, *Transnatl. Envtl. L.* (2021) (published online by Cambridge University Press).

¹³² *Id.*

found in other countries. For instance, the Whanganui river in New Zealand and the Atrato in Colombo cases are “premised on a cultural integrity model, which has more to do with protecting the spiritual connection between indigenous communities and riverine ecosystems.”¹³³ Despite being creative judgments there is a limited conceptualisation that does not fully recognise the intrinsic value and ecosystem services provided by these biological entities.

5.5. Implementation of the Biodiversity Act

In an ongoing 2019 case, the NGT in *Chandra Bhal Singh v. Union of India*¹³⁴ directed the expeditious implementation of the Biodiversity Act and the respective Rules. The Ministry of Environment, Forest and Climate Change (MoEFCC) and the NBA were ordered to submit a compliance report on the constitution of BMCs and PBRs in every state by February 2020. BMCs are statutory bodies created by local bodies under the Biodiversity Act.¹³⁵ BMCs are key players for promoting conservation, sustainable use, and documentation of biological diversity.¹³⁶ People’s biodiversity registers (PBRs)¹³⁷ is a dynamic document and captures comprehensive information on availability and knowledge of local biological resources. Gadgil states “PBRs is an attempt to record people’s knowledge and perception of the status, uses, history, ongoing changes and forces driving these changes in the biodiversity resources of their own localities.”¹³⁸ The NGT order stated that the defaulting states will be fined Rs. 10 lakhs per month from 1 February 2020 onwards.

NGT’s impetus led to the MoEFCC and NBA submitting a Compliance Report in February 2020.¹³⁹ BMCs have been formed in 2,43,499 (90%) local bodies in the states, whereas 95,252 PBRs (39.12 %) have been completed by 31st January 2020.¹⁴⁰ The NGT has prioritised biodiversity cases where non-compliance with its orders reveals a stark account of the shortcomings and continuing challenges facing India’s biodiversity governance.

¹³³ Jolly & Roshan Menon 2021; see *supra* note 123.

¹³⁴ NGT Order, 9 August 2018. At the time of filing petition in 2016, the compliance for BMCs was 3.58 percent and PBRs was 14.31 percent. See Mridhu Tandon, *India’s Biodiversity Finally Shows Progress due to the NGT*, Mongabay-India, 9 June 2020 (Mar. 10, 2021), available at <https://india.mongabay.com/2020/06/commentary-indias-biological-diversity-act-finally-shows-progress-due-to-ngt/>.

¹³⁵ Biodiversity Act, Sec. 41.

¹³⁶ NBA, Guidelines for Operationalization of Biodiversity Management Committees (BMCs) (2013) (Mar. 10, 2021), available at http://nbaindia.org/uploaded/pdf/Guidelines_BMC_1.pdf.

¹³⁷ Biological Diversity Rules, 2004, Rule 22.

¹³⁸ Madhav Gadgil, *People’s Biodiversity Registers: Lessons Learnt*, 2(3-4) Environ. Dev. Sustain. 233 (2000).

¹³⁹ Compliance Report submitted before the NGT on 13 February 2020 (Mar. 10, 2021), available at https://greentribunal.gov.in/sites/default/files/news_updates/MOEF%20&%20CC%20AND%20N.B.A.-FINAL%20REPORT%20IN%20OA%20347%20OF%202016.pdf.

¹⁴⁰ *Id.* at 3.

5.6. Access and Benefit Sharing

India ratified the Nagoya Protocol¹⁴¹ in 2012 and committed to its implementation. The NBA regulates access and benefit sharing (ABS) with the help of SBBs and local BMCs.¹⁴²

In 2013, Madhya Pradesh State Biodiversity Board (MPSBB) issued an order requiring companies using State bio-resources for commercial use to share benefits arising out of such commercial use. The money should be deposited in the Biodiversity fund and used for biodiversity conservation in the State. Some companies were served notice of their non-compliance. Several companies challenged these notices before the NGT.¹⁴³ Domestic industries argued they were not subject to the control of ABS. Section 7 of the Biodiversity Act states that the Indian industry is required to give prior intimation to the concerned SBB about obtaining the biological resources for commercial utilisation. Many other States, including Karnataka and Andhra Pradesh, followed the MPSBB position and started levying a charge for accessing bio-resources. The NGT bench asked the NBA and the Government of India to examine whether the SBBs can issue notices where there are no guidelines.¹⁴⁴ These developments and litigation were instrumental in the NBA preparing national level Guidelines on Access to Biological Resources and Associated Knowledge and Benefits Sharing Regulations (ABS Guidelines).¹⁴⁵

In *Divya Pharmacy v. Union of India*¹⁴⁶ the petitioner sought relief against the order passed by the Uttarakhand Biodiversity Board (UBB) under the "Fair and Equitable

¹⁴¹ Secretariat of the Convention on Biological Diversity, Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation to the Convention on Biological Diversity (2010) (Mar. 10, 2021), available at <https://www.cbd.int/abs/doc/protocol/nagoya-protocol-en.pdf>. The Nagoya Protocol advances the CBD's third objective: the fair and equitable sharing of benefits arising out of the utilisation of genetic resources. It provides a strong basis for greater legal certainty and transparency for both providers and users of genetic resources. The Protocol recognises that benefits derived by users of genetic resources should be shared with those who provide them, with the ultimate objective being the conservation and sustainable use of biodiversity.

¹⁴² Biodiversity Act, Ch. VI (Secs. 22–26) & Ch. X (Sec. 41).

¹⁴³ These included *Agro Solvent Products Pvt. Ltd. v. M.P. State Biodiversity Board*, Appeal No. 06/2013; *Ruchi Soya Industries v. M.P. State Bio Diversity*, Appeal No. 07/2013; *Dabur India Ltd. v. M.P. State Bio-Diversity Board*, Appeal No. 01/2014.

¹⁴⁴ NGT Order, 1 August 2014.

¹⁴⁵ NBA, Guidelines on Access to Biological Resources and Associated Knowledge and Benefit Sharing Regulation (2014) (Mar. 10, 2021), available at <http://extwprlegs1.fao.org/docs/pdf/ind188691.pdf>. The ABS Guidelines prescribe different parameters of benefit sharing for different purposes. These include high economic value of a biological resource, obtaining intellectual property rights on research or information on any biological resources obtained from India, transfer of results of research and transfer of accessed biological resource and/or associated knowledge to third party. See Pushpa K. Lakshmanan, *Implementing the Nagoya Protocol on Access and Benefit Sharing in India* in *Biodiversity: Law, Policy and Governance* 109, 114–116 (Usha Tandon et al. eds., 2018); Kanchi Kohli & Shalini Bhutani, *Chasing 'Benefits': Issues on Access to Genetic Resources and Traditional Knowledge with Reference to India's Biodiversity Regime a Post-Nagoya Protocol View on Access and Benefit Sharing* (2018).

¹⁴⁶ 2018 S.C.C. Online Utt 1035.

Benefit Sharing" (FEBS) provisions as provided in the Biological Diversity Act. FEBS is one of the three important elements of biodiversity conservation. It gives benefits to the indigenous and local communities, who either grow biological resources, or have traditional knowledge of these resources. The question before the Uttarakhand High Court was whether there is a difference in the statutory obligation between foreign entities and Indian persons under FEBS. The Biodiversity Act requires the NBA to give prior approval to persons/entities with some "foreign element" association while extracting biological resources and determine equitable benefit sharing.¹⁴⁷ Divya Pharmacy argued it was not a foreign but an Indian entity and therefore did not attract FEBS provisions. The High Court rejected their argument by stating that under FEBS there is no distinction between a "foreign entity" and a "domestic entity." It held FEBS involves purposive reading based on the broad parameters of the Biodiversity Act, the historical rights and the benefits of the local and indigenous communities, and India's international treaty commitments.¹⁴⁸ According to the High Court,

the rights of "indigenous and local communities" were extremely important and emphatically declared in the Nagoya Protocol. These rights should be protected, equally from outside as well as from within. The focus of the Nagoya Protocol is on FEBS, and protection of indigenous and local communities, and the effort is that the indigenous and local communities must receive their fair and equitable share for parting with their traditional knowledge and resources. India being a signatory to the Rio and the Nagoya Protocol, is bound to fulfil its international commitments and make implementation of FEBS effective and strong.¹⁴⁹

The judgment is a welcome step in biodiversity adjudication. Many Indian companies extract biological resources as raw material for commercial purposes. Now they are required to seek prior approval and share their revenue with those local communities responsible for conserving and protecting the resources. The judgment recognises community property rights as

¹⁴⁷ Biodiversity Act, Secs. 2a, 3(2), 21, 23. Equitable benefit sharing includes grant of joint ownership of intellectual property rights, transfer of technology, and payment of monetary compensation and other non-monetary benefits of the benefit claimers as the NBA may deem fit.

¹⁴⁸ The High Court analysed the 1972 Stockholm Declaration, 1992 CBD, and the 2010 Nagoya Protocol. According to the court, the Stockholm manifesto recognised that earth's resources are finite and there is an urgent need to safeguard these resources. The CBD recognises the close and traditional dependence of many indigenous and local communities embodying traditional lifestyles on biological resources, and the desirability of sharing equitably benefits arising from the use of traditional knowledge, innovations and practices relevant to the conservation of biological diversity and the sustainable use of its components. The Nagoya Protocol is a supplementary agreement to the CBD and promotes equity and fairness between providers and users of genetic resources.

¹⁴⁹ *Divya Pharmacy v. Union of India*, paras. 73 & 74.

biological resources are definitely the property of a nation where they are geographically located, but these are also the property, in a manner of speaking, of the indigenous and local communities who have conserved it through centuries.¹⁵⁰

However, sceptics argue that the inter-related design and implementation issues should be resolved before the benefits can be realised by the local community. This again raises the issue of legal fragmentation:¹⁵¹ the incongruence of the Biodiversity Act, the ABS Guidelines, and the powers of regulatory authorities including NBA and SBBs. For instance, Bhutani and Kohli¹⁵² raise thought-provoking questions about access: when did access take place? Is it when the raw material is obtained or at the point of its commercial utilisation with its development as a product or subsequent sale? The Biodiversity Act and the judicial decisions are silent on this moot question. Again, the nature and quantification of benefit is problematic. Should it not include non-monetary benefits for the betterment of local communities such as constructing a school? To answer these questions, India needs a clearer ABS policy and detailed ABS Guidelines for improved operational mechanism and effective implementation.¹⁵³ The new draft ABS Guideline (2019)¹⁵⁴ offers possible answers to the above questions.

On a positive note, considering India's rich biodiversity and biological resources, the courts have ensured that the regulatory authorities evolve guidelines and create opportunities to benefit local and indigenous communities under ABS provisions.

Conclusion

Indian biodiversity legal claims are increasing. There is growing public recognition of biodiversity importance and concern about its decline at an unprecedented rate. As with other nation states that are signatories to the CBD, India accepts and honours its legal commitment through its laws and judicial practice. The constitutionally based judicial journey from PIL to specialised adjudication in the NGT provides a steadfast foundation to promote decision-making based upon a rights-based approach. The proactive, amicus friendly, Indian judiciary through expansive interpretation and the integrated approach of the constitutional mandates (Arts. 21, 48A and 51A(g)) have produced a powerful

¹⁵⁰ *Divya Pharmacy v. Union of India*, para. 94.

¹⁵¹ See *supra* notes 79 & 80.

¹⁵² Shalini Bhutani & Kanchan Kohli, *Despite Landmark Judgment, Issues of Regulation Remain in India's Biodiversity Regime*, *The Wire*, 5 March 2019 (Mar. 10, 2021), available at <https://thewire.in/law/divya-pharmacy-india-biodiversity-act>.

¹⁵³ *Id.*

¹⁵⁴ The 2019 Guidelines deal with how benefit sharing obligations are to be determined and imposed by the National Biodiversity Authority (Mar. 10, 2021), available at <http://asbb.gov.in/access/draft-guideline-abs.pdf>.

sympiotic link between human rights and biodiversity conservation discourse. The terminological boundaries between environment, nature, ecology and biodiversity have overlapped and blended to advance “collective biodiversity concerns.” These include “conservation and protection of nature and inanimate objects are inextricable parts of life”; “eco-centric approach that is life-centred, nature-centred where nature includes both humans and non-humans”; and “personhood to biological identities.”

However, this biodiversity litigation journey still faces challenges that mirror legal fragmentation discourse. The sectoral legislation (forests and wildlife), and the Biodiversity Act are part of the same corpus and share the same goals of protecting and conserving biodiversity, but the multiple governance mechanisms are conflictual. Conflicting norms and disparate institutional responses produce different and disjointed responses within biodiversity laws. The gaps in the ABS raise operational issues regarding the “what,” “who” and “how” thereby creating ambiguities in the governance of the protection of biodiversity and the benefits for local and indigenous communities.

Nevertheless, closer cooperation and institutional integration would provide synergetic legal structures supporting the legitimacy of biodiversity regime. For example, the establishment of the NGT, a judicial body staffed by scientific experts, engages, produces, and enforces scientifically supported policies and laws thereby taking its remit beyond the courtroom door and into the wider community. The NGT has impacted upon the country’s biodiversity jurisprudence by formulating biodiversity principles where they were undervalued or undeveloped, evolving its own procedures, and exposing serious administrative and compliance weaknesses. Similarly, the formulation of draft ABS Guideline (2019) aims to clarify and improve rules and regulations regarding the ABS governance. In the creation of synergetic legal space, all dimensions of biodiversity need to be balanced with the objectives of conservation and sustainable use as guiding principles.

The future of biodiversity litigation holds hope and promise. The Indian judiciary enjoys widespread public credibility, and the results of its positive decisions continue to resonate across the country.

References

- A Qualified Hope: The Indian Supreme Court and Progressive Social Change* (Gerald N. Rosenberg et al. eds., 2019). <https://doi.org/10.1017/9781108565530>
- Alley K.D. *River Goddess, Personhood and Rights of Nature: Implications for Spiritual Ecology*, 10(9) *Relig.* 502 (2019). <https://doi.org/10.3390/rel10090502>
- Bhuwania A. *Courting the People: Public Interest Litigation in Post-Emergency India* (2017). <https://doi.org/10.1017/9781316551745>
- Biodiversity, Genetic Resources and Intellectual Property: Developments in Access and Benefit Sharing* (Charles Lawson & Kamalesh Adhikari eds., 2018). <https://doi.org/10.4324/9781315098517>

Conserving Biodiversity in Areas Beyond National Jurisdiction (David Freestone ed., 2019). <https://doi.org/10.1163/9789004391703>

Divan S. & Rosencranz A. *Environmental Law and Policy in India: Cases, Materials and Statutes* (2001).

Ecological Restoration Law: Concepts and Case Studies (Afshin Akhtar-Khavari & Benjamin J. Richardson eds., 2020)

Holladay Z. *Public Interest Litigation in India as a Paradigm for Developing Nations*, 19(2) *Indiana J. Glob. Leg. Stud.* 555 (2012). <https://doi.org/10.2979/indjglolegstu.19.2.555>

Hutchison A. *The Whanganui River as a Legal Person*, 39(3) *Alt. L.J.* 179 (2014). <https://doi.org/10.1177/1037969x1403900309>

Ituarte-Lima C. et al. *Incorporating International Biodiversity Law Principles and Rights Perspective into the European Union Timber Regulation*, 19(3) *Int. Environ. Agreem.* 255 (2019). <https://doi.org/10.1007/s10784-019-09439-6>

O'Donnell E. *Legal Rights for Rivers: Competition, Collaboration and Water Governance* (2018). <https://doi.org/10.4324/9780429469053>

Prip C. *The Convention on Biological Diversity as a Legal Framework for Safeguarding Ecosystem Services*, 29(B) *Ecosyst. Serv.* 199 (2018). <https://doi.org/10.1016/j.ecoser.2017.02.015>

Research Handbook on Biodiversity and Law (Michael Bowman et al. eds., 2016). <https://doi.org/10.4337/9781781004791>

Research Handbook on Human Rights and the Environment (Anna Grear & Louis J. Kotzé eds., 2015).

Stone C.D. *Should Trees Have Standing? Towards Legal Rights for Natural Objects*, 26(6) *Stan. L. Rev.* 1488 (1974). <https://doi.org/10.2307/1228012>

Sundar N. et al. *Branching Out: Joint Forest Management in India* (2001).

Information about the authors

Gitanjali Nain Gill (Newcastle, United Kingdom) – Professor of Environmental Law, Northumbria Law School, Northumbria University (Newcastle-upon-Tyne, NE1 8ST, United Kingdom; e-mail: gita.gill@northumbria.ac.uk).

Nupur Chowdhury (Delhi, India) – Assistant Professor of Law, Centre for the Study of Law and Governance, Jawaharlal Nehru University (Baba Ganga Nath Marg, New Delhi, 110067, India, e-mail: nupur@jnu.ac.in).

Nidhi Srivastava (Delhi, India) – PhD Scholar, Energy Studies Programme, School of International Studies, Jawaharlal Nehru University (4075, B 5 & 6, Vasant Kunj, New Delhi, 110070, India; e-mail: sriv.nidhi@gmail.com).