



DEGRADATION OF BIODIVERSITY - CULPABILITY OF GREEN ENVIRONMENT OR DARK HUMANITY?

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Abstract : *Balancing biodiversity demands with environmentally sustainable development is a challenge for governments, developers, and scientists alike. This research entails the practical, scientific, legal and policy analysis of biodiversity conservation in the backdrop of urbanisation. Environmental decision-making requires more site-specific, evidence-based research that considers the greater landscape's biodiversity. Setbacks, offsets, buffers and corridors in urban environments are said to assist improve long-term environmental consequences. Various significant court rulings are reviewed while considering setbacks close to development. Also, new study shows that riparian zones are biologically unique from non-riparian bush land. Also, riparian corridor width influences plant and invertebrate fauna community composition, supporting the adoption of large buffers to maximise biodiversity. Using site-specific empirical data in biodiversity management and decision-making can assist restrict and reduce deforestation and fragmentation.*

Keywords : Biodiversity, Sustainability, Wildlife, Environment Protection

I. INTRODUCTION

A balance of the ecosystem has been sought since antiquity in order to improve life on Earth and save the planet. A stable kingdom is dependent on a stable environment, as Chanakya had noted.¹

Human life, it is argued, can only exist in harmony with nature if man maintains a delicate balance with it. However, the condition of ecological balance is presently in jeopardy due to an ever-increasing proportion of "ecological misbehaviour" and the resulting dangers.² Environmental pollution and resource exploitation were not a major concern in ancient times. Even back then, there were measures in place to keep people safe, and they were adhering to them.

1. D. Kaur, 'Some Aspects of Environment Management' in R.K. Sapru ed., Environmental Management in India at 29 (1987).

2. Prof. R. P. Anand, 'Development and Environment: The case of Developing countries' 20(1) I.J.I.L at 1 and 19 (1980).

However, despite the fact that environmental concerns and ecological misconduct have already reached crisis proportions, the necessary regulatory measures are still not being implemented as intended. United Nations (UNGA) expressed deep concern about the continuing deterioration of the environment, as well as trends that, if allowed to continue, might disrupt the planetary ecological balance, jeopardise the life-sustaining qualities of Earth and leading to an ecology catastrophe.³

Wild genetic resources are abundant in the Indian subcontinent. Agricultural development programmes rely heavily on the genes found in wild species and relatives of crop plants. In order to ensure food, nutritional, and agricultural economic security, it is imperative that the country's agro-biodiversity management system pay special attention to the significant wild-related species and varieties in various crop groups that are prevalent in distinct phytogeographic zones. Humanity's basic survival is under jeopardy because of the ongoing loss of biodiversity. Discussions on biodiversity conservation have often concentrated on tropical rain forests. Rain forests, which span just 7% of the planet's surface area, are home to more than half of all known species.

Today, conservation is a hotly contested topic. For conservation efforts to be successful, they must take into account all of the factors contributing to the present loss of biodiversity while also taking use of the possibilities that genes, species, and ecosystems provide for long-term growth.⁴

Even after five years since the United Nations Conference on Environment and Development (UNCED), serious environmental problems remain deeply ingrained in the socio-economic fabric of countries worldwide. This was acknowledged in 1997 at a U.N. General Assembly Special Session to Review and Appraise Agenda 21 Implementation. Things weren't going as planned in terms of the state of the global environment, according to this evaluation. Preservation and sustainable use of biodiversity, as well as an equal distribution of the benefits resulting from the use of genetic resources, are still urgently required. Overfishing, pollution, and the unwarranted introduction of exotic species all pose serious threats to the planet's biodiversity. Biodiversity conservation requires rapid action, starting with a strategy to protect flora and fauna and their natural habitats.

II. ROLE OF JUDICIARY IN PROTECTION OF BIODIVERSITY

In terms of environmental legislation and judicial practise in India, the Doon Valley quarrying case⁵ is notable. This is the country's first case of its sort including environmental concerns and ecological equilibrium. Limestone quarries were shut down by the supreme court because they were damaging the environment and disrupting ecological balance, a responsibility that not only governments, but also every citizen, must take on in order to preserve the environment and maintain the ecological balance untouched. In accordance with Article 51-A(g) of the Constitution, this is a basic responsibility of every citizen.

3. *Id.*

4. International Union for Conservation and United Nation Environmental Programme, 1992.

5. *RLEK v State of U.P* AIR. 1985 SC 652.

In the Banwasi Seva Ashram case,⁶ the issue that necessitated the most thorough investigation was the adivasi's claims to land and other rights in the region of Mirzapur in Uttar Pradesh. The National Thermal Power Corporation needed the property to build its Rihand Super Thermal Power Project. Encroachment and other forest offences were documented as criminal cases, and a deliberate effort was undertaken to prevent them from moving freely. Even the Uttar Pradesh Public Premises (Eviction of Unauthorized Occupants) Act 1972 was used to evict them from the premises. An expert committee, including a retired High Court Judge and two other officers, was formed to gather information in order to decide on the tribal people's claims to hereditary and customary rights in the tehsils in question and on their claims to their customary rights in relation to things like food, fuel, small timber, sand and stone for building purposes, and timber flowers and fruit. A high-powered committee was also tasked with investigating the legality of such possession in order to make a final verdict.

The court ruled that the claimants had been given the right to assert their rights in relation to land included in the reserve forest. However, no one had an opinion on whether or not they could be kept up. If no claims were made in accordance with Section 6 of the Indian Forest Act (IFA), they may now be filed. The court also granted the land sought to be acquired for the project, and such land may be acquired by following Land Acquisition Act procedures in accordance with Section 4 of the Indian Forest Act (IFA). The claimants were also given instructions on delineation, quick settlement of rights, and the issuance of an adequate title document.

It was in this circumstance that Kamath Holiday Resorts⁷ had the collector lease out a plot in a forest reserve area for a snack restaurant and bar to serve visitors. The collector didn't think it was essential to follow the method outlined in Section 2 of the Forest Conservation Act (FCA) since the land leased was located inside Union Territory. It was challenged by the Conservator of Forests.

In the Murad AH Khan & Ors. case,⁸ the defendants were accused of shooting and removing an elephant's ivory tusks from the Kundurugutu forest. A judicial magistrate was tasked with investigating the allegations and, after receiving a petition from the accused, the High Court quashed all of the proceedings against the defendants, finding that the magistrate had acted outside of his authority and that the facts as alleged did not amount to an offence. It was upheld in Supreme Court by admitting appeal by State Government under Wild Life Protection Act of taking cognizance of the crime. Supreme Court reinstated orders of Magistrate. Because of its familiarity with laws pertaining to wildlife, the Supreme Court noted in its ruling that "The policy and object of wild life legislation are the result of increased knowledge of the persuasive necessity to rebuild the significant environmental imbalance introduced by man's depredations on nature. The environmental imbalances and environmental degradation that have resulted are at such an alarming point that unless urgent, determined, and successful efforts are taken, the harm may be irreparable. As the world's

6. *Banwasi Seva Ashram v State of Uttar Pradesh & Ors.*, AIR 1987 SC 374.

7. *Union of India v Kamath Holiday Resorts Pvt. Ltd.*, AIR 1996 SC 1940.

8. *Murad Ali Khan & Ors. v State of Bihar* (1998)4 SCC 655

animal and plant species are disappearing at an alarming pace, protecting them has never been more important for the future of mankind.

When it came to bird-trapping for commercial purposes and breeding in captivity in the Nisar Khan case,⁹ the Supreme Court decided to expand the 1991 amendment's restriction on shooting wild animals to include that practise. Thus, "Trapping" of birds that fall within the definition of "hunting" is outlawed in this case.

An appeals court ruled that the Doon Valley region should be classified non-industrial in A.R.C. Cement Ltd. case,¹⁰ preventing the cement plant from operating in the area where mining operations had been halted. However, the petitioner requested that the government find another location for the relocation of the petitioner's cement firm.

To ban mechanical stone-crushing operations in and around the complexes of Delhi and Faridabad, the Supreme Court issued a directive in the M.C. Mehta case.¹¹ However, in order to promote sustainable development, new "crushing zones" were built up in Pali, Haryana, for the stone crushers who had been ordered to suspend their operations in the Delhi, Faridabad, and Ballabhgarh complexes, as well. Supreme Court decision in this case is notable for another reason: The Supreme Court laid out exactly what workers in 168 sectors were entitled to whether they relocated or relocated their businesses. The Supreme Court has since offered further guidance on the rights and benefits of employees of businesses that are moving or transferring locations. For workers in industries that were not relocated or shut down in accordance with the Supreme Court's prior directives, it has also given a package of compensation. 110 Consequently, the Supreme Court has also taken care of workers' rights.

T.N. Tanneries is a well-known Supreme Court decision in which the Court accepted the notion of sustainable development as a counterbalance in the Vellore Citizen's Welfare Forum case.¹² The Supreme Court said that "The Precautionary Principle" and "The Polluter Pays Principle" are key characteristics of sustainable development and have been recognised as part of the law of the nation after describing the main concepts of sustainable development.

Upon learning in a case¹³ that Delhi Development Authority (DDA) was allegedly depleting the city forest by chopping down trees and erecting infrastructure such as buildings and roads in an area designated as "Green" in the Master Plan and expected to be preserved as a part of the forest, the Supreme Court issued orders directing the DDA to stop demolishing the forest.

The Supreme Court¹⁴ declared in Delhi Transport Department, Re that the State Government must implement the "precautionary principle" as part of the notion of "sustainable development" in order to

9. *Nisar Khan v Union of India* AIR 2003 SC 1867.

10. *A.R.C. Cement Ltd. v State of U.P* 1993 Supp (1) SC 57; see also (1993) Supp (1) SC 426.

11. *Surindra Kumar Singh v State of Bihar* (1991) (1992)3 SC 256. Supp (2) SC 628 and *M.C. Mehta v. Union of India* (1992) Supp (2) SC 85 and (1996)8 SC 462.

12. *Vellore Citizen's Welfare Forum v Union of India* (1996)5 SC 647.

13. *M.L Sud v Union of India* (1992) Supp (2) SC 123.

14. *In Re: Suo Motu Proceedings, Delhi v Unknown* (1998) 9 SC 250.

reduce pollution. It is the duty of the state's government to manage pollution, and if necessary, to prevent it from occurring. The Court said that it may be necessary to impose limitations on the use of taxis, three-wheelers, and other city vehicles, and it sent notices to various operators via their unions asking for their assistance in combating pollution.

Since the courts have played an important role in reconciling the issues of development and conservation, especially in regard to natural resource exploitation, it can be said that they have played an important role in the preservation and maintenance of ecological balance and the diversity of species on this planet. At the same time, the Court has recognised the efforts of those who are concerned about the environment and the ecological balance in bringing such important matters before the court.

III. INTERNATIONAL PERSPECTIVE RELATING TO BIODIVERSITY

Policy for genetic resources intersects with several facets of intellectual property law in a tangled web. Depending on their missions and technological skills, many institutions have tackled different elements of this issue. Many international groups have worked to preserve biological variety. International cooperation is necessary to preserve and protect the world's cultural and natural heritage, according to the Convention for the Protection of the World Culture and Natural Heritage, accepted by the General Conference of the United Nations Educational, Scientific and Cultural Organization (UNESCO) in Paris from October 17 to November 21, 1972.¹⁵ Intergovernmental and non-profit groups are both involved in worldwide efforts to address concerns of intellectual property rights and biodiversity. All of the signs of a law-in-the-making may be seen in the present position in international law regarding genetic heritage and traditional knowledge. Several international treaties have been drawn up in response to concerns about the deterioration of genetic resources and their preservation and use.

1. Stockholm Declaration 1972

Humanity's first effort to take stock of its influence on the environment came in Stockholm in 1972 at the United Nations Conference on Human Environment, which took place from June 5-16. Thus, rather than laying out specific policy stances, the Stockholm Declaration focuses on more general environmental policy aims and objectives. In the prologue of the Stockholm Declaration, there are seven introductory declarations, followed by 26 principles.¹⁶

At the time of its adoption, the declaration included clauses that were either recognised to already embody international law or anticipated to set future normative expectations. As part of the Stockholm Declaration, it is suggested that the environment should be treated as an object of study.¹⁷ While the World Charter for

15. Arjun Prasad Nagore, *Biological Diversity and International Environment Law* (APH Publishing Corporations New Delhi 1996), at p.23

16. Gunther Handl, Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration), 1972 and the Rio Declaration on Environment and Development, 1992 (2012) United Nations Audiovisual Library of International Law visit www.un.org/law/avl. See also R. K. Lal Panjabi, 'From Stockholm to Rio: Comparison of the Declaratory Principles of International Environmental Law' 21 *Denver Journal International Law and Policy* (1993) pp. 215-287.

17. Principles 1-2, 5 and several Preambular Paragraphs

Nature of 1982¹⁸ and the Convention on Biological Diversity place emphasis on the "intrinsic value" of all life, the focus in the proclamation is on the "internal value" of each and every living thing, regardless of its monetary value to humans. Having a decent environment that allows a person to live with dignity and well-being is a basic human right, as stated by the Stockholm Declaration. In this way the Stockholm Declaration, axiomatically characterises economic and social growth as vital to human well-being¹⁹ after declaring that both natural and man-made parts of man's environment are necessary.²⁰

Precautionary approach should be extensively used by States according to their capacities, according to the Declaration.²¹ A lack of complete scientific confidence must not be an excuse for States to take cost-effective actions to avoid environmental deterioration where there are dangers of significant or permanent harm.²² Because the Declaration's working group was unable to agree on a clause requiring states to notify other states that may be impacted by substantial transboundary environmental consequences, no such responsibility was included in the document. Stockholm Declaration is a basis of current international environmental and biodiversity legislation. There are few concrete obligations placed on governments by its principles, which are more aspirational than obligatory - the operative word being "should" rather than "must."

2. World Heritage Convention 1972

Unique natural locations and items of exceptional universal importance, both in terms of aesthetics and science, were deemed worthy of preservation by the World Heritage Convention in 1972.²³ Climate change poses an additional threat to biodiversity by endangering plant and animal species. This was recognised during the meeting. Contracting parties are obliged by four specific obligations; two general obligations; and five "soft" or incentive-based responsibilities. At the same time, the Convention demonstrates a vital exchange of human values, across time or within a cultural region of the globe, on advancements in architectural or technological innovations as well as monumental arts and urban planning and landscape design.

Climate change poses an additional threat to biodiversity because it threatens plant and animal species. The Convention is recognised as an international instrument of universal relevance since it focuses on climate change challenges.²⁴ According to two authors comparing the World Heritage Convention to the Ramsar Convention, it has more strict and perform assigned tasks on its members to take conservation measures and

18. General Assembly resolution 37/7 of 1982.

19. The Stockholm Declaration on the Human Environment, 1972; Preambular Paragraph 1.

20. *Id.*, Principle 8.

21. *Id.*, Principles 13-15 and 17-18.

22. *Id.*, Principle 15.

23. The Convention Concerning the Protection of the World Cultural and Natural Heritage, adopted by UNESCO in 1972. For the text see 1037 UNTS 151; 27 UST 37; 11 International Legal Materials 1358 (1972).

24. Lakshman Guruswamy, Jason C. Roberts and Catina Dry water, 'Protecting the Cultural and Natural Heritage: Finding Common Ground' 34(4) Tulsa Law Journal (1999) pp. 713- 744.

provides listed sites with sufficient protection, but the constraints on listing inhibit it from being the main instrument of conservation measures.²⁵

3. Washington Convention 1973

Endangered animals and plants are protected under the Washington Convention,²⁶ a multilateral convention that was signed in 1973 by countries throughout the world. Members of the International Union for Conservation of Nature approved a resolution in 1963, which led to the creation of this document (IUCN). Signing began in 1973 and the treaty came into effect on July 1, 1975. With 150 signatories, it is one of the most effective international animal conservation accords ever.

International trading in endangered species of both species of plants and animals is regulated under the Convention on International Trade in Endangered Species. In order to prevent the international trade of wild animal and plant specimens from endangering the existence of such species, it protects more than 35,000 different species to differing degrees. Ten thousand plant and animal varieties have to adhere to its rules.²⁷

Trade prohibitions may have challenges and controversies since they do not cover all elements of biodiversity, as the Convention has not done. With respect to environmental protection, the Convention has been criticised for making it difficult to assess its effectiveness, but work done within its framework is generally thought to be relatively efficient and successful in comparison with other international conventions dealing with species protection.²⁸

4. World Charter for Nature 1982

Conservation of wildlife and biodiversity is made easier by the United Nations World Charter for Nature,²⁹ which was adopted in 1982 by a majority of the UN General Assembly and outlines specific measures to be taken to fulfil humanity's responsibility to protect nature and all of its inhabitants. A moral code of conduct is required for humans to offer other creatures the respect they deserve under the Charter's premise that all life is unique and deserves respect, regardless of its monetary value to us.³⁰

Though its broad principles are established in required words, they are also presented in extremely generic terms, the Charter gave nothing more specific in terms of application than this general exhortation. Other United Nations resolutions must be used to evaluate this Charter's legal standing. Despite the fact that opposing opinions have been expressed,³¹ it is impossible to claim that the Charter had any legally enforceable status in connection to resource conservation; in fact, its drafters agreed that by its very

25. Patricia Birnie and Alan Boyle, *International Law and the Environment* (Clarendon Press 1994) at p. 470.

26. The Convention was signed at Washington, D.C., on 3 March 1973. For the text of the Convention see 12 International Legal Materials (1973) 1105.

27. David M. Ong, 'The Convention on International Trade in Endangered Species (CITES, 1973): Implications of Recent Developments in International and EC Environmental Law,' 10(2) Journal of Environmental Law (1998) pp. 291-314.

28. J. Ebbesson, Compatibility of International, Op. Cit. at p. 200.

29. The World Charter for Nature was adopted by United Nations member nation-states on October 28, 1982.

30. *Id.*, Preamble.

31. Harold W. Wood, 'The United Nations World Charter for Nature: The Developing Nations' Initiative to Establish Protections for the Environment' 12 (4) Ecology Law Quarterly (1985) pp. 977-996 at p. 981.

character, the Charter cannot have any strong affinity or punishments linked to it.³² It used "must" just to make a declarative statement.³³ In spite of this, some have argued that it should be considered a special instrument, a declaration of principles in the style of such General Assembly Resolutions as the Universal Declaration of Human Rights,³⁴ and its restatement in subsequent strategies shows that it did have some moral and political force. When it was first adopted, it was believed that it would have little impact on international policy-making. However, it has had a greater impact than expected on future international policy-making.

5. Brundland Commission Report 1987

When it comes to sustainable development, this document goes into great detail and emphasises the need of preserving and enhancing biodiversity. Sustainability is defined as "development that satisfies the demands of the present without jeopardising the generations' ability to meet and satisfy their own needs" in the study. The two most important notions are included in it-³⁵

- The idea of "needs," in particular the most basic requirements of the world's impoverished, should take precedence; and
- Technology and societal structures create constraints on the environment's capacity to fulfil current and future requirements.

UN Educational, Scientific and Cultural Organization's designation of biosphere reserves as "biological provinces" was highlighted in the Commission's report and a new species treaty was recommended to safeguard "universal resources." In order to ensure the long-term preservation of species, it proposed the establishment of a trust fund in which the countries that reaped the most from the exploitation of resources would contribute the most, while a proportionate share of the benefits of the development of the resource base would be attributed to the 'possessor' nations. World Bank environmental assessment of its projects was developed, with a focus on habitat conservation and life support systems in the assessment process. This is in line with what the World Bank is doing right now.

6. Convention on Biodiversity (CBD)

Biological resources, ecosystems, and all species are protected under the Convention on Biodiversity (CBD). Intellectual property and ensuring fair use and distribution of biodiversity's benefits are also addressed in this first international environmental pact.³⁶ At its core, the CBD aimed at creating a global

32. Draft World Charter for Nature: Report of the Secretary-General, 36 U.N. GAOR (Agenda Item 23), U.N. Doc. A/539 (1981) at p. 7.

33. Harold W. Wood, 'The United Nations World Charter for Nature' Op. Cit. at p. 982-984.

34. Jackson, 'Priorities for Survival' 12(1) Ambio (1983) pp. 132-134 at p. 133.

35. J. C. Dernbach, 'Achieving Sustainable Development: The Centrality and Multiple Facets of Integrated Decision Making' 10 Indiana Journal of Global Legal Studies (2003) pp. 247-285; J. C. Dernbach, 'Sustainable Development as a Framework for National Governance' 4(1) Case Western Reserve Law Review (1998) pp. 1-103.

36. Tony Simpson, 'Indigenous heritage and self-determination; the culture and intellectual property rights of indigenous people' (On behalf of the Forest Peoples Programme) Copenhagen (International Working Group for Indigenous Affairs (IWGIA)) (1997) at p.96.

system to promote biodiversity conservation³⁷ and sustainable use of genetic resources while also ensuring that "fair and equitable sharing" of economic gains from such use was ensured.³⁸

The implementation of the Convention on Biological Diversity (CBD) is the responsibility of each member country. The Convention on Biological Diversity is primarily composed of the Montreal-based Secretariat³⁹ and the Conference of the Parties, which includes all of the countries that have signed the Treaty.⁴⁰ The Conference of Parties is tasked with reviewing the implementation of the Convention on Biological Diversity.

It is quite probable that this will be the primary framework for the formulation and implementation of biodiversity protection regulations.⁴¹ Because the Convention is worldwide and takes an ecosystem perspective, Philip Sands⁴² believes that it is especially essential because it links conservation and financial resources on a large scale. Convention's legal responsibilities are not very specific, but Ebbesson⁴³ points out that the convention offers a variety of tools for species protection and establishes principles for future work, giving it a process-oriented nature. In this approach, protocols and legal principles for a variety of legal challenges, such as the usage and protection of biodiversity and the sharing of advantages resulting from the extraction of genetic resources, may be developed. The 1992 Convention on Biological Diversity is a monumental undertaking. However, despite its limited provisions, it has already achieved a lot. In a legal sense, however, the Convention constitutes a significant moment in time.

7. The 1992 Rio Declaration and Agenda 21

Because its primary goal was to recognise and encourage sustainable development, the 1992 Rio Declaration⁴⁴ by the United Nations Conference on Environment and Development shall not cover any stipulations on natural resources as precise as those suggested in the instruments outlined previously. The issue of animal rights was hardly mentioned.⁴⁵ With anthropomorphic goals, it works for international accords that maintain the integrity of the entire environmental and development system, while also ensuring that everyone's interests are taken into account and protected. It's important to note that they aren't seen as individual parts, but rather as an integrated system. The Sustainable Use of Natural Resources Convention, as well as the Desertification and Climate Change Conventions, and other important agreements concluded after Rio, all require sustainable use of natural resources. This does not mean, however, that sustainable development does not necessitate restraint in the use of natural resources. Biodiversity Conservation is made

37. F. McConnell, 'The Biodiversity Convention. A Negotiating History' (1996) London, The Hague, Boston, Kluwer cited in Michael Blakeney, 'Regulating access to genetic Resources' in S.K.Verma & Raman Mittal (ed), 'Intellectual Property Rights A Global Vision' The Indian Law Institute, (2002) at p. 12.

38. CBD, art. 1.

39. CBD, art. 24.

40. CBD, art. 23 (4).

41. James S. Miller, 'Impact of the Convention on Biological Diversity: The Lessons of Ten Years of Experience with Models for Equitable Sharing of Benefits' in Charles R. McManis (ed.), *Biodiversity and the Law: Intellectual Property, Biotechnology and Traditional Knowledge*, (Earthscan London 2007) pp. 58-67

42. Philip Sands, *Principles on International Environmental Law I* (Manchester University Press 1995) at p. 451.

43. J. Ebbesson, *Compatibility of International, Op. Cit.* at p. 164.

44. U.N. Doc., A/CONF. 151/ 5/ Rev. I, June 13, 1992; 31 International Legal Materials (1992) 874.

45. *Id.*, Preamble.

possible by recognising that each country has the freedom to develop and use its own natural resources, according to the shared but differing obligations of developed and developing nations.⁴⁶

Agenda 21⁴⁷ is the second document approved in Rio that outlines specific goals, objectives, activities, and ways of implementing sustainable development. Global agreement and political will at the highest level of development and environmental cooperation are reflected in this global partnership for sustainable development. The protection of biological variety is addressed in Chapter 15 of Agenda 21, a document with 40 chapters. Chapter 15 of Agenda 21 aims to promote the Convention on Biological Variety by improving the protection of biological diversity as well as the optimal use of biological resources. There are many necessary products and services provided by a wide diversity of genes, species, populations, as well as ecosystems. This is further acknowledged in Chapter 15. Food, clothing, and shelter are all provided by biological resources. Biodiversity is concentrated in natural ecosystems such as forests, grassland and rangeland, desert and tundra regions as well as river systems and lakes. Gene banks, botanical gardens, zoos, and other types of germplasm repositories play a smaller but still important role in germplasm conservation, as do the fields and gardens of farmers. Human activity is primarily responsible for the ongoing reduction of biodiversity, which poses a severe danger to human progress. According to this ambitious plan of policies and activities, Agenda 21 emphasises the critical need for biodiversity protection across the globe.

As stated above, the Convention on Biological Variety has several legal requirements to maintain biological diversity. However, the Convention does not create an international monitoring or observer system, which would be impossible for a comprehensive framework of 'soft' obligations that needs substantial implementation of national law to be effective. The Preamble to the Convention states that in situ protection of biodiversity and environmental habitats is essential for maintaining and recovering viable populations and species. Because most of the affected locations and species are under national authority, national agencies are responsible for enforcement. The effectiveness with which its contractual parties, and perhaps even non-parties, fulfil this requirement may be subject to international scrutiny and complaints. For this critique to be successful, it has to be able to express itself both within the Convention and in the broader international society.

IV. CONCLUSION

Biological diversity in India is under grave danger, yet nothing is being done to preserve it from biopiracy, maintain the intrinsic vitality, respect its inherent relationship with people's knowledge, and prevent its abuse for trade and economic purposes. The difficulty for a nation like India with so much biodiversity is to guarantee that its protection and usage benefits its people. Biodiversity and its knowledge have the potential to create riches. So long as biodiversity laws inherently contribute to inequity, either via substance or

46. Arif Ahmed and Jahid Mustofa, 'Role of Soft Law in Environmental Protection: An Overview' 4(2) Global Journal of Politics and Law Research (2016) pp. 1-18.

47. Agenda 21 is an action plan of the United Nations with regard to sustainable development. It was adopted in the Earth Summit (UN Conference on Environment and Development) held in Rio de Janeiro, Brazil, in 1992.

execution, they do not require revision.⁴⁸ Accessing biodiversity causes an ecological problem; hence the legislation and its implementation must be examined. The Biodiversity Act's focus on identifying endangered species and documenting biological resources does not ensure conservation. A lack of proper protections may actually lead to increased biodiversity loss and marginalisation of the local people who have been its main custodians.

However, the Act's documenting and inventorying procedures have not resulted in considerable progress towards conservation or livelihoods goals in the years before and following data collecting. It also reduces communities to secondary stakeholders, instead relying on scientists or bureaucrats who only have a fragmentary understanding of the ground realities. Ironically, communities are referred to be 'benefit-claimers' after others have been provided access to resources. The community's conservation role, via newly formed committees, has yet to be developed. The village committees' roles and responsibilities have yet to be defined. It is critical to refocus and prioritise the present regulatory system to prioritise conservation while protecting community interests. This will safeguard both the remaining biological variety and the knowledge connected with it.⁴⁹

Though the Biological Diversity Act is a conservation law, its implementation lacks evidence of this goal. Instead, the Act is being utilised to expedite the acceptance of germplasm for biotechnological processes and the pursuit of IPRs. Indeed, biodiversity rules are intertwined with community sovereignty. Biological resources will remain to be viewed as state property until local decision-making as well as sovereignty over biological resources and expertise is achieved.⁵⁰ The repercussions of commercialising biological resources and knowledge must be examined. Privatization and its advocates' promises of tremendous riches must be fought since they increase inequities and injustices.

V. SUGGESTIONS

According to the Wildlife Act of 1972, traffickers have frequently exploited ownership papers to wash freshly obtained animal products, such as tiger or leopard skins. When the courts decide to restore the scaled stocks to dealers and enable them to retain their personal ownership certificates, the issue gets more problematic. As a result, the whole issue of ownership certificates should be tightened up by changing the Act so these certificates never become an unlawful trading device.⁵¹

The Animal Act 1972 does not protect endangered wildlife species from other countries, hence Indian wildlife officials have no authority to interfere. To comply with India's CITES responsibilities, the Act should be revised to include species that are endangered outside of India's borders. Schedules for

48. Deepa Mookerjee, 'Biodiversity in India: Legal Framework as a Tool for Conservation' 3 Environmental and Forest Law Times (2011) pp. 10-16.

49. Tim O. Riordan and Susanne Stoll-Kleeman, *Biodiversity, Sustainability and Human Communities* (Cambridge University Press, Cambridge, 2002).

50. Aditya Choudhary, 'The Biological Diversity Act, 2002: Is it the Right Solution' 26 Delhi Law Review (2004) pp. 126-142.

51. Arjya B. Majumdar, Debosmita Nandy, Swayambhu Mukherjee, *Environment and Wildlife Laws in India*, (LexisNexis 2013).

endangered species are woefully inadequate in terms of detail. As a matter of urgency, all of this must be remedied in order to prevent wasteful and excessive usage of beneficial plants.

Offenders who violate the Wildlife (Protection) Act, 1972 face up to three years in jail, a fine of up to Rs. 25,000, or a combination of the two.⁵² In light of the very high value of the animal or animal item, this punishment clause is too mild. Furthermore, people who work in the wildlife trade are released on bail and are free to further damage the biodiversity of the nation. Because of inexperienced wildlife authorities, insufficient compensation for public prosecutors, protracted court hearings, and so on, this is the result. This means that the criminal provisions of the Act need to be strengthened even more to ensure that those who violate them face even greater consequences. A session court will no longer be permitted to bail out an offender if he or she is charged with a crime under Section 511 of the Indian Penal Code (IPC).⁵³ Penalties for repeat offenders will be tougher yet. Professional merchants and poachers will undoubtedly use taxidermy as a determining factor.

In order to meet the Millennium Development Goals and the 2010 Biodiversity Targets, sufficient financial and technological resources must be deployed, with a focus on poor nations.

Some of the original cow breeds are on the verge of extinction as a result of domestic animal varieties being selectively selected to improve milk production. Local flora is also in danger of being extinct. This is a significant problem for our agricultural sector. Most of the genetic material for plants and animals comes from India. Conservation and restoration of this must be done.⁵⁴

It is possible that a national water policy should be implemented by the government in order to better use available water resources and reduce water pollution. River water projects and plants are being postponed due to interstate river conflicts, resulting in an enormous rise in project costs as well as a slew of unexpected issues. Furthermore, water resources are underutilised.

The Air (Prevention and Regulate of Pollution) Act, 1981, is the primary law in our nation to prevent, control, and abate air pollution. To be more successful, the Act requires several modifications. Section 2⁵⁵ gives definition of air pollution must include radiations and vibrations as well, and the Pollution Boards should be allowed greater freedom to exercise their authority without intervention from the government or politicians.

Environmental courts are long overdue, as they are needed to deal with a wide range of environmental issues, including pollution, natural resource exploitation and its impact on the environment, hazardous substance handling as well as standardisation, environmental engineering and so forth.

52. Wildlife (Protection) Act 1972, s 51.

53. Indian Penal Code 1860, s 511.

54. Shoji Lal Bairwa, Kerobim Lakra, Pravin Kumar and S. Kushwaha, 'Sustainable Agriculture and Rural Livelihood Security in India' 4(10) Journal of Science (2014) pp. 625-631.

55. Air (Prevention and Regulate of Pollution) Act 1981, s 2.