



Article Type: Review Article

Available online: www.ujlbm.twistingmemoirs.com

THE CONTINUOUS DEVELOPMENT OF BIODIVERSITY CONSERVATION REGIMES: A LEGAL ANALYSIS BEFORE AND AFTER THE CREATION OF THE UNITED NATIONS

Dr. Monika Bhardwaj*,

Assistant Professor, The Law School, University of Jammu, Jammu & Kashmir, India,

Corresponding Author: Dr. Monika Bhardwaj, Email: monarinki2176@gmail.com

ORCID ID: 0009-0002-3415-2187

ABSTRACT

The conservation of biological diversity has emerged as a critical global environmental concern, growing in significance as ecological degradation accelerates. Human activities driven by excessive exploitation, such as indiscriminate deforestation, overhunting, and habitat destruction, are causing rapid biodiversity loss and disrupting the delicate balance of nature. This loss not only threatens ecosystems but also poses severe long-term risks to human well-being and survival. Alarming, at the current rate of exploitation, several endangered species could disappear within the next two to three years. Addressing this crisis requires urgent and coordinated action at both national and international levels. International legal organizations have taken notable steps to conserve biodiversity, focusing on the protection of endangered species from overexploitation and extinction. Regional and transboundary agreements further strengthen these global efforts, ensuring shared responsibility for biodiversity protection. Enforcement and monitoring mechanisms play a crucial role in translating these legal frameworks into tangible conservation outcomes. This paper examines the effectiveness of recognized international standards in addressing the threats posed to biodiversity. It also emphasizes the need for stronger global cooperation, legal enforcement, and community participation to achieve lasting conservation results. Ultimately, preserving biodiversity is not only an environmental necessity but also an ethical obligation to safeguard the planet's natural heritage for future generations.

Key words: Biodiversity Conservation, Legal Analysis, Development, United Nations, deforestation.

1. INTRODUCTION

There is a lack of scientific understanding of many species and ecosystems, and there is little understanding on how to conserve species. Likewise, the protection of the biodiversity is a vital

part of contemporary human rights, for it is, as a former Vice-President of the International Court of Justice put it, a *sine qua non* for numerous human rights such as the right to health and the right to life itself [2]. Human laws must be reformulated to keep human activities in harmony with the unchanging and universal laws of nature [3].

Biodiversity is not a new word. Biodiversity is the name for all the different kinds of life on Earth and the patterns they make in nature. The Convention on Biological Diversity from 1992 says that biodiversity is "the variety of living organisms from all sources, including terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are a part. This includes diversity within species, between species, and in ecosystems [4]. The term is used to talk about how different things are in nature, like how many regions, species, or genes are in a certain group [5].

The main things that make it hard to protect biodiversity are the following: Biological resources, especially in particular plant genetic resources, cannot be sold to the general public. Genetic resources don't have a regulated market. There is little scientific understanding of many species and ecosystems, and there is little understanding on how to conserve them. In comparison to mineral and other natural resources, biological resources are undervalued. The undervaluation of biodiversity is due to the fact that it is highly challenging to estimate the complete economic value of the full variety of goods and services it provides. There are virtually few local institutions dedicated to protecting and utilizing biodiversity. There aren't enough incentives for the general public to support biodiversity conservation.

Government policies in several countries have narrowly concentrated a conservation effort, which has led to insufficient funding for biodiversity preservation. Rich manufacturers and traders overuse some of the precious biological species, leaving the area with few left over species. Political incoherence among many nations impedes efforts to conserve biodiversity. It can be exceedingly challenging to preserve all the varieties or strains of a species in a certain location when the exchange of genetic resources between two or more countries is so constrained [6].

Therefore, maintaining biodiversity is essential to ensuring human survival on this planet. The biodiversity includes plants, animals, forests, land, and water resources that are essential to the survival of people, other animals, and vegetation. Any imbalance will inevitably disrupt the ecosystem's regular cycle of functioning and be harmful to life on Earth. Our planet has become suitable for the types of life we know today because to the evolution of plants and animals over hundreds of millions of years. They assist in preserving the earth's chemical equilibrium, stabilizing the climate, defending watersheds, and replenishing soil. A basis for human creativity, the diversity of nature is a source of beauty, amusement, understanding, and knowledge. Due to all of these factors, maintaining biodiversity and responsibly managing biological resources are now major global concerns.

2. GLOBAL LEGAL FRAMEWORK FOR BIODIVERSITY CONSERVATION:

2.1 Pre-United Nations Period: A Quick Overview:

At the beginning of the twenty first century, biodiversity protection is not in the same state as it was a number of years before. The potential effects of international agreements and protocols on the environment and sustainable development have been reduced to meagre symbols of complacency and apathy as a result of the increasing integration of global processes, the proliferation of private enterprise, and neoliberal practices. Major environmental challenges are now confused in international negotiations, with barely any direct attention or money allocated to their relief. Environmentalists' current common goals include reducing and cleaning up man-made pollution, with future goals of zero pollution, reducing societal reliance

on fossil fuels, developing green, low-carbon, or renewable energy sources, conserving and sustainably using limited resources, maintaining pristine ecosystems, saving threatened or endangered species and ecosystems from extinction, and establishing natural and sustainable communities [7].

Since most natural resources come from other countries, it makes no sense for a state to govern its environment alone. Therefore, when it comes to shared natural resources, international cooperation is required. On occasion, different international initiatives have been made to not only safeguard and improve the environment, but also to protect it. The adoption of a number of bilateral treaties relating to fishing stocks can be used to date the development of international environmental law to at least the 19th century. Following that, more bilateral and regional accords were ratified, most of which focused on protecting endangered species. The American Fisheries Society, which was expanded in 1902 and renamed International Association of Game, Fish, and Conservation Commission, was the first international effort to conserve the environment. It was founded in 1870. Following that, more bilateral and regional accords were ratified, most of which focused on protecting endangered species. Although several bilateral accords attempted to control transboundary pollution, overall treaty law developments were haphazard, intermittent, and narrow in scope [8]. Two international arbitrations provide as excellent illustrations of how international law normally approaches environmental issues. The Behring Fur Seals Arbitration involved a disagreement between the United States and Great Britain over alleged over-exploitation of fur seals in regions outside of the (then) US territorial seas' three nautical mile limit [9]. Despite the significance of seal conservation for local US citizens and their migration between the high seas and US territories, the Panel concluded that the US lacked any right of protection and property in the seals.

The resolution of the conflict, however, included a number of clauses requiring the parties to limit seal fishing in the region. These clauses shared many characteristics with contemporary conservation treaties. The "Trail Smelter" arbitration between the US and Canada over sulphur emissions from a facility in Canada that harmed crops, trees, and pastures in the US State of Washington is another case in point [10]. In this case, it was noted that no state has the right to use or permit the use of its territory in such a way as to cause harm or fumes in or to the territory of another or the properties of people there, when the case is of serious consequences and the harm is established by clear and convincing evidence. This is true both under international law and in the United States. The principle of *sic uteretur ut alienum non laedas*, which literally translates as "enjoy your own property in such a manner as not to injure the right of another," was adhered to while allocating the compensation.

This principle was subsequently used to the development of compensating jurisprudence in general and specifically to the determination of environmental wrongs, which was supported by numerous international organizations [11]. From these beginnings an extensive body on International treaty law has emerged, together with the more tentative emergence of the new norms of customary international environmental law [12]. The first international environmental accord dates to 1967 and deals with fisheries. The International Ornithological Congress and Convention to Protect Agricultural Birds was established in 1902 as a result of Switzerland's proposal for an international regulatory commission for the preservation of birds in 1872. This convention aims to forbid the killing or destruction of specific birds and offer them complete protection. Additionally, it permitted the capturing of birds for scientific study, research, and population growth [13].

The 'Convention for the Protection of Birds Useful to Agriculture' was signed in Paris on March 19, 1902, and it is still in effect today despite being entirely superseded. Given that all of the Bird Treaty's 1902 signatories were in reality European, this agreement served both regional and sectoral purposes. The "London Convention Relative to the Preservation of Fauna and Flora in their Natural State" was signed on November 8th, 1933. The "Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere" was the last convention to

be signed before the war on October 12, 1940, in Washington. It is still in effect today, albeit having minimal impact. It was designed to act as the American Continent's counterpart to the 1933 London Convention on Africa. Therefore, the initial trend in international conservation legislation was either regional, dealing with certain geographic areas, or sectoral, dealing with specific species or species-related issues [14].

Before the First World War, the concept of a global conservation treaty was first proposed. A Standing Committee of Governmental Representatives was founded in 1913 after a text was agreed upon at a meeting in Berne. Its duties included gathering and disseminating information on worldwide nature conservation as well as promoting the cause. However, after the start of the conflict, nothing further occurred.

After that, during an IUCN conference in Fontainebleau in 1948, the idea of a global treaty was revived, and it was addressed at the inaugural UNESCO-IUCN International Technical Conference on Nature Protection in Lake Success (USA) in 1949. Many delegations believed that the differences in national conditions and laws would make such a convention all but impossible to implement. The consensus during the discussion was that it would be preferable to keep negotiating sectoral and regional treaties. The IUCN will move forward with more work on a global conservation treaty, it was determined [15]. The Convention on Preservation of Flora and Fauna in Their Natural State, which took place in 1933, was one of the significant events of the first half of the 20th century. Through the establishment of national parks and reserves, the regulation of hunting, and the collecting of species, this convention sought to preserve the native fauna and flora of several regions of the world, particularly Africa. Additionally, it had rules for the protection of forests, for encouraging the domestication of wild animals that are significant economically, and for outlawing specific hunting techniques, such as the use of poison, explosives, blinding lights, nets, pits, and snares, among others. It also placed limitations on the export of some skins and furs as well as the exchange of trophies. This convention's biggest flaw was the lack of institutional arrangements for administering the rules and enforcing their compliance [16].

2.2 Changes in the After-UN Era:

After World War II, a new era began in which countries began building international organizations to address environmental challenges. During this time, too, people began to draw connections between economic growth and either environmental damage or environmental protection. The enormous unscientific use of natural resources, together with the progress of science and technology, were the primary drivers of the emergence of international environmental law at this time. Furthermore, Canadian businesses contributed to transboundary environmental issues, such as Acid Rain in North America, as a result of the industrial revolution. Thus, scientists were the first to bring the world's attention to the need for international action on environmental concerns, followed by the inter-governmental summits. International law was applied in the 1949 Corfu Channel case, where mines placed in territorial seas threatened international navigation and caused transboundary injury [17]. In 1945, with the founding of the United Nations Organization (UNO), international environmental law received a significant boost. The United Nations has always been concerned about potential environmental risks that could compromise the success of the organization's stated mission. The U. N. pledges to promote: Higher standards of living, full employment and conditions of economic and social progress and development; Solutions of international economic, social health and related problems and International cultural and economic cooperation; Universal respect for and observance of human rights and fundamental freedoms for all without distinctions as to race, sex, language or religion [18].

3. CONVENTION ON BIOLOGICAL DIVERSITY, 1992:

An increasing amount of effort was put out on a national and international scale to protect

biodiversity. In order to preserve and responsibly utilize biodiversity for future generations, the international community has established the Convention on Biological Diversity. To aid in the creation of national strategies for the conservation and sustainable use of biodiversity, the Convention on Biological Diversity was created as a global instrument. It aims to collect and disseminate data on all elements of biodiversity conservation, including the importance of biodiversity on a global scale, the conservation status of its components, the processes that pose a threat to biodiversity, the state of our knowledge in this area, and the effectiveness of existing conservation efforts. The growing international commitment to sustainable development was the impetus for the CBD. It is an important global instrument which first evolved through the United Nations Conference on Environment and Development (UNCED) which was held in Rio de Janeiro in June 1992 [19].

4. BACKGROUND TO THE ADAPTION OF THE CONVENTION:

Species and ecosystems are being lost at an alarming rate, and as a result, there is a growing consensus that the international community must act together to stop this trend. Prior to the ratification of the CBD, there were significant gaps in coverage for both species and ecosystems due to the sectoral and regional structure of international treaties for the protection of species and ecosystems. While many places, such as the Arctic, the Middle East, and much of Asia, are protected by regional conservation agreements, these varying treaties' scopes and requirements leave numerous locations vulnerable. However, the regional conservation treaties that were signed off on in the late 1970s and early 1980s do not provide enough resources for the goal of protecting biodiversity. The IUCN's 15th General Assembly, held in Christchurch, New Zealand, in 1981, officially introduced the concept and mandated that the Union's Secretariat conduct initial research on the topic. At its 17th Session in San Jose (Costa Rica), the Assembly decided that the first draught which had been produced should be further developed, following a request from the next IUCN General Assembly, held in Madrid in 1984, for the IUCN Secretariat to develop a number of principles to serve as a basis for a preliminary draught of a global instrument on the conservation of the world's genetic resources. In June 1989, following extensive IUCN-wide deliberations, a draught was finalized [20]. IUCN, a draft was completed in June 1989 [21]. The IUCN proposals centered on three main points:

1. A general obligation for all States to conserve biological diversity
2. The principle of freedom of access to wild genetic resources
3. The principle that the cost of conservation should be shared equitably by all nations.

The Convention was finally enacted and made available for signing on June 5, 1992, at the United Nations Conference on Environment and Development in Rio de Janeiro, after many years of arduous negotiations. Since then, 192 countries have ratified the CBD. The two main protocols relating to present Convention are the following:

- 4.1 Cartagena Protocol on Biosafety
- 4.2 Nagoya Protocol

4.1. Cartagena Protocol on Biosafety:

Following the treaty on biological diversity comes the Cartagena Protocol on Biosafety. The Protocol only addresses the worldwide transmission of LMOs (Living Modified Organisms), and it is associated with the worldwide Plant Protection Conventions and the Spread of Pest Agreement [22]. A biosafety protocol was examined in two international governmental committees on the CBD (October 1993 and June/July 1994) under CBD regulations. The first Conference of Parties (COP I) created an open-ended expert working committee to examine a biosafety protocol. The second conference of parties (COP-II) adopted a protocol and created

an open-ended ad hoc working group based on that working group's report. The biosafety working group met six times since 1996. The Cartagena ExCOP failed. Three rounds of informal meetings in Montreal and Vienna followed, and the final ExCOP adopted the agreement in Montreal (January 2000). The Cartagena Protocol, adopted in January 2000, follows the 1992 Rio Summit Convention on Biological Diversity. The biosafety Protocol will "chart out a new direction in the growth and development of modern biotechnology" [23]. The protocol solely covers the international movement of LMOs; however, it is linked to the SPS Agreements, the International Plant Protection Convention, and the FAO.

The Protocol's scope, precautionary principle, link to previous agreements, and liability were the main negotiation concerns. More or less decided by Montreal was whether the Protocol should encompass LMOs (Living Modified Organisms) intended for direct use as food or feed or for processing. This class includes commonly traded GMO corn, soy, wheat, canola, and tomatoes. Since commodities are not intended for introduction into the ecosystem, opponents of the CBD Protocol contended that they do not threaten biodiversity and should not be included. LMOs introduced into the ecosystem, such as seeds and microorganisms, can mutate, move, and multiply, threatening native species. Some said LMO could never be prevented from entering the environment, regardless of purpose. They also urged that the Protocol should consider LMO's human health hazards, which the negotiators seem to have interpreted as biodiversity consequences and direct contact (allergic reactions) rather than food safety risks. The precautionary principle states that preventive action should be performed even without scientific assurance, especially where the costs of action are low and the hazards of inaction are substantial (P. Sands, 1995). After determining that Parties might take a careful approach to LMO import limitations, the real negotiations focused on operationalizing the principle of precaution. Some worried that the precautionary principle could be used to prohibit commerce of harmless goods to protect domestic producers. They claimed such restrictions required credible science and risk assessment. Others claimed that the sound-science argument was an excuse to limit an international environmental law principle.

4.2 Nagoya Protocol:

A supplementary agreement to the current Convention, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) to the Convention on Biological Diversity, contributes to the conservation and sustainable use of Biodiversity [24]. It is a supplementary agreement to the Convention on Biological Diversity. It offers a clear legal framework for the efficient realization of one of the three goals of the CBD: the equitable and fair distribution of gains attributable to the use of genetic resources.

The Nagoya Protocol on ABS was ratified on October 29, 2010, in Nagoya, Japan. It came into effect on October 12, 2014, or 90 days later, when the fifty-first instrument of ratification was deposited. Its goal is the fair and equal distribution of benefits resulting from the use of genetic resources, helping to preserve and sustain the use of genetic resources [25]. The CBD-covered genetic resources and the advantages resulting from their use are subject to the Nagoya Protocol. The Nagoya Protocol also addresses the advantages of using traditional knowledge (TK) connected with genetic resources protected by the CBD.

5. BIODIVERSITY CONSERVATION AND SDGS:

"Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss" are the objectives of Sustainable Development Goal 15 of the 2030 Agenda for Sustainable Development. In the Future We Want, the Rio+20 Conference's final report, Member States reaffirmed that "intrinsic value of biological diversity, as well as the ecological, genetic, social,

economic, scientific, educational, cultural, recreational, and aesthetic values of biological diversity and its critical role in maintaining ecosystems that provide essential services, are critical foundations for sustainable development and human well-being." The Member States also stressed "the seriousness of global ecosystem degradation and biodiversity loss" and "the detrimental effects that this situation has on food security, nutrition, water access, and health of the rural poor and people worldwide" [26].

6. UNEP AND BIODIVERSITY CONSERVATION:

UNEP is in favor of preserving forests for their advantages to society, the economy, and the environment. Together with its partners, UNEP is leading the Decade on Ecosystem Restoration (2021-2030) and supports sustainable land management. The Decade attempts to compile the latest research and recommended methods for restoring ecosystems and to promote action. UNEP works with conventions and academic institutions concerned with biodiversity. An international agreement with legal force, the Convention on Biological Diversity addresses biodiversity at all scales, including species, ecosystems, and genetic resources. The Cartagena Protocol on Biosafety also addresses biotechnology. The Convention acknowledges that biological diversity encompasses more than just the ecosystems and populations of plants, animals, and microorganisms. It concerns individuals and our need for safe and dependable access to food, health care, clean water and air, housing, and a safe environment in which to live. The Secretariat of the Convention is housed at UNEP [27]. The Convention on the Conservation of Migratory Species of Wild Animals (CITES), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and the Inter-governmental Panel on Biodiversity and Ecosystem Services all collaborate closely with UNEP and are housed there.

7. EMERGING PANDEMICS AND BIOLOGICAL DIVERSITY:

The COVID-19 pandemic has brought to light the intricate relationships between newly emerging infectious illnesses, illegal wildlife trading, habitat degradation, biodiversity fragmentation, and changing dispersal patterns brought on by new weather extremes. According to research, new zoonotic diseases are becoming more common. Most infectious diseases that are known to infect humans—60% of all known infections—and 75% of newly developing infections—are zoonotic. Global outbreaks like COVID-19 would undoubtedly increase in frequency unless nations take drastic measures to stop zoonotic contagions. The COVID-19 recovery funding has primarily ignored biodiversity, indicating a concerning trend. Ecological niches for generalist species, like bats and rats, bring them closer to people. Habitat modification and urbanization put strain on biodiversity. These species are more likely to serve as zoonotic disease reservoirs due to their diversity [28].

8. CONCLUSION:

As the planet Earth shows signs of disturbance and the loss of biodiversity is an unavoidable phenomenon when viewed from a global viewpoint, an author has made a sincere effort to investigate the numerous legislative advances for biodiversity conservation both before and after the foundation of the United Nations. It is high time to look into and examine legal development at international level to counter the adverse effects on the environment so that a better, balanced, and ecofriendly development could become a reality. This threat to biodiversity has been exacerbated in the last three to four decades due to ever increasing man's intervention to the nature. As a result of this, it is high time to look into and examine legal

development at international level. To address the escalating biodiversity crisis, future efforts must prioritize stronger global cooperation and robust legal frameworks to enhance conservation measures. Community participation and awareness should be amplified to foster sustainable practices and equitable benefit-sharing from biological resources. Integrating biodiversity goals with climate action and sustainable development initiatives will ensure a holistic approach to environmental protection. Additionally, expanding research and monitoring mechanisms is crucial to mitigate emerging threats, such as zoonotic diseases linked to habitat destruction. Finally, enforcing stricter regulations against illegal wildlife trade and habitat degradation will be vital to safeguarding ecosystems for future generations.

9. REFERENCES:

1. Assistant Professor, the Law School, University of Jammu.
2. WEERAMANTARY, Christopher, Separate Opinion of Judge Weeramantary, Judgment of 25 September 1997 in the case concerning the Gabčíkovo-Nagymaros Project, ICJ Reports 1997, p.91
3. Our Common Future, "Report of World Commission on Environment and Development," 1987, p.330.
4. Convention on Biological Diversity, 1992, Article 2.
5. J A McNeely, *Conserving the World's Biological Diversity*, London: IUCN, 17(1990).
6. See, Supriyo Chakraborty, *Biodiversity* 38 (2004).
7. See generally, Bell and McGillivray, *Environmental Law*, 3(2008); IUCN, *An Eye on Nature*, online: www.iucn.org; B. Ward and R. Dubos, *Only One Earth: The Care and Maintenance of a Small Planet*, 1972; Philip Sands, *Principles of International Environment Law*, 1-17(1995).
8. Philip Sands, *Principles of International Environment law*, 26 (1995)
9. (1898) *Moore's International Arbitration Awards*, 755.
10. 3 RIAA 1907 (1941)
11. R. K. Singh, *Environmental Law* 381 (2011)
12. Bell and Mc. Gillivray, *Environmental Law*, 95 (2005)
13. E B Weiss, *Global Environmental Change: The Introductory Framework* pp. 3-40; and A.S. Timoshenko, *Ecological Security: Responses to Global Challenges*, in E B Weiss, et al., (ed.) *Environmental Change and International Law*, UN University Press, Japan, 413-459(1992).
14. See, generally, Birnie and Boyle, *International law and the Environment*, 545-589 (1992); Kiss and D. Shelton, *International Environmental Law*, 1-20 (1991).
15. Cyrille de Klemm, *Biological Diversity Conservation and the Law: Legal Mechanisms for conserving Species and Ecosystems*, IUCN, Gland, Switzerland and Cambridge, UK 7-10 (1993).
16. *ibid*
17. Corfu Channel case, 1949 ICJ 4.
18. See, UN Charter at www.un.org.
19. Phillips Sands, *Principles of International Environmental Law*, 14(1995); Birnie and Boyle, *International: Law and the Environment*, 545(2002).
20. Visit www.iucn.org.
21. Visit www.iucn.org.
22. See, Stanley W. Burgiel, "The Cartagena Protocol on Biosafety: Taking the Steps from Negotiation to Implementation", *RECEIL* 11(1) (2002) at 53 *et seq*
23. Patricia Kameeri-Mobet, (2002) "The Development of Biosafety Protocol Regulation in Africa in the context of Cartagena Protocol: Legal and Administrative Issues" *RECEIL* 11©62
24. The text of the protocol along with India's submissions are available at <http://www.envnfor.nic.in>
25. Visit <https://www.cbd.int/abs/about/default.shtml/>

26. Visit <https://sdgs.un.org/>
27. Visit https://www.unep.org/unep-and-biodiversity-conference?_
28. Visit <https://www.unep.org/unep-and-biodiversity>