

# Sustaining Biodiversity: International and National Legal Perspective

**Shashank Kumar Dey**

L.L.M. Hidayatullah National Law university, Chhattisgarh, India  
Shashank619dey@gmail.com

**Abstract:** *Biodiversity is an attribute of an area and specifically refers to the variety within and among living organisms, assemblages of living organisms, biotic communities and biotic processes, whether naturally occurring or modified by humans. However the problem arose with the industrialization and modernization of the society with the exploitation of the natural resources and it has posed new threats like global warming, drastic climate change, and Air, Water and Land pollution. Now the rationale of this research is to understand the reasons of the damage to the Biodiversity and the legislative enactments regarding the same also the recent development in the legal remedies and the approach of the courts regarding the same.*

*This proposed study aspires to make a humble attempt to provide the pivotal role and impact of biodiversity in human's life and the comparative analysis of the international conventions, treaties and the Indian laws, policies regarding safeguarding of biodiversity and ultimately the Earth.*

**Key Words:** *Biodiversity, Modernization, Industrialization, Legislation.*

## 1. INTRODUCTION:

In this universe the earth has an iota of existence and different ecosystems flourish on earth, consisting of biotic and abiotic components of environment through nutrient and energy flows. The human ecosystem is also part of this chain and they utilize the natural resources for their existence and development. As it is said that our very own existence invites challenges similarly humans through their improper planning in agriculture, forestry, fishing, and hunting have disturbed the balance of the ecological system. The modern human life has paradoxically been so dependent on technology that they ignore the biological and physical systems that support their existence. Mentally, they have become so isolated from the nature that some writers and social scientists consider this isolation as a form of insanity.<sup>1</sup> The humans have evolved from hunter- gathering society which have been dependent mainly on biodiversity for its subsistence. The rise of industrialization has eased the dependence on agriculture, so the emphasis on biodiversity has decreased. The biodiversity is the source of food, medicine, clothing, housing, spirituality and intellectuality and these are no doubt the basis of life. A quarter of earth's total biodiversity is 1.7million species and in next 2-3 decades they will be at verge of extinction.<sup>2</sup> The present human life style threatens the existence of life and necessary steps are needed to protect it.

## 2. LITERATURE REVIEW:

Biodiversity is a term coined by the International Union for the Conservation of nature (IUCN, 1986) that represents the life in totality on earth. During 1980's the rate of extinction of species from the ecosystem alarmed the scientist to research and see how the species can influence the physical habitats and the elements in the biogeochemical cycles and the ecosystems productivity.

## 3. METHOD:

This research is doctrinal research and its primary sources are the various International Conventions and Protocols on environmental law, research articles by different scholars, books on the environmental law and the legislative enactments by Parliament.

This research is descriptive providing an analysis of the positive law, principles, and doctrines of law and substantiated with facts from different authentic sources which leads to the discovery of law. The structure of the research is –

- Historical Approach
- Conceptual Approach
- Statute Approach

### 3.1 WHAT IS BIODIVERSITY?

Biodiversity as a term was used for the first by Lovejoy (1980) and now it's the general term for describing particular number of species. In 1980 Robert E. Jenkins and Thomas Lovejoy used the term Biodiversity, five years later in 1985 Biodiversity term was coined by W.G. Rosen.<sup>3</sup> The term was used in Washington in a symposium in 1986, till that time people were aware regarding the extinction of several species and then biodiversity emerged as a significant issue.

Biodiversity maybe a new word but biological diversity is not, and since the last decade this definition has kept taking turns. It's also argued by many that biodiversity do not mean the number of species in an area.<sup>4</sup>

Biodiversity is an attribute of an area and specially referring to variation within and among living organisms, assemblages of living organisms, biotic communities and processes whether natural or man-made.<sup>5</sup> It can be measured in terms of identity of types, assemblages of species, biotic communities and processes and the amount of abundance and structure of each of them. This definition allows for modification according to the context in which it is used, however various authors have proposed specific and detailed elaborations of this definition.

### 3.2 Conservation of Biodiversity in Ancient India

India is a very ancient civilization, a highly developed one in which all aspects of life were blended harmoniously resulting in a very healthy lifestyle both physically and spiritually. The earth has always been described in the ancient Indian scriptures as the mother who nourishes and sustains the human race and all the living beings and Hinduism has always respected and considered nature as mother. The *Vedas*, *Puranas*, *Upanishads* and other manuscripts of Hinduism have always endeavoured for conservation of plants, animals, wild life and detailed description of their utility to the people. The '*Yajur Veda*' puts emphasis on the relationship between animals and plants which should be of respect and kindness and not of subjugation and domination. The Hindu culture lays instruction to have harmony with the nature and show respect to the divinity in nature.

### 3.3 Reasons for loss of biodiversity

Destruction of natural habitat of many species is caused by the human actions for the settlement, agriculture, highway construction, industries, mining, dams, building etc. The impact of which that species adopt to the changed environment or if fails then succumb to predators, starvation, disease or eventually die.

- **Hunting**

The wild animal market across the globe is of million dollars as these animals are utilized for skin, fur, meat, cosmetics, perfumes, decoration or for medicines. The poaching has led to 95% of Rhino population to be exterminated for their horn which are more than 15000 dollars' worth in pharmaceutical industry.<sup>6</sup> In last decade 1/3rd of elephants of Africa has been killed for their tusk i.e. 3000 tons of ivory, the international regulations have banned and to large extent reduced illegal trading and poaching of African elephants. The Indian government has banned the trade in Indian ivory in 1987.

- **Introduction of Exotic Species:**

Any species which is not natural inhabitant of locality but is accidentally introduced into the system be termed as exotic species. Native species are subjected to competition for food and space due to these new exotic species. There are several instances where exotic species have caused extensive damage to biotic community of the ecosystem. The initiation of Nile perch from north in Lake Victoria the Africa's largest lake have almost caused the loss of almost half of 400 original fish species of lake to extent of extinction.<sup>7</sup> Pollution causes further damage to the natural habitat.

### 3.4 Global deterioration of Biodiversity

The state of biodiversity and ecosystems is at its most perilous point in human history and the decline is accelerating, which is a warning for the whole human community.<sup>8</sup> In between these threats the human population has got doubled since 1970 to 7.6 billion and (per capita of consumption of materials had a rise of 15% over the last 5 decades),<sup>9</sup> report also includes status of indigenous and local communities. The lands of indigenous people are shrinking at a bit slower pace but 72% of indicators of these communities show deterioration of nature.

There are 8 million known animals and plants species and out of which 1 million are under the serious threat of extinction, and the gravity of the threat increases because they include more than 40% of amphibian species and the third of marine mammals. Since 1900 native species are approximately 20% less abundant then before and the condition of natural ecosystems have declined 47% since the latest estimates and others are deteriorating at 4% every decade. The report shows other metrics of the decline of nature and its human domination.

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of natural ecosystems have declined 47% since the latest estimates and others are deteriorating at 4% every decade.<sup>10</sup> The report shows other metrics of the decline of nature and its human domination.

They include- Out of the whole, two third has been 'severely altered' by human activities and more than a third of land and two-third of freshwater is used for crops or livestock. The living coral reef has dropped at least half since 1870's.<sup>11</sup> More than hundred million hectares of tropical forests have been destroyed in last three decades. The wetlands which is the rich source of clean water and fish have been destroyed three times faster than forests.<sup>12</sup> The modern day product of pollution i.e. plastic has increased ten times since 1980 and crossed from 300million to 400 million tons of industrial waste which are dumped annually. The coasts are loomed large with the 400 low-oxygen dead zones which is equivalent to the area of United Kingdom.

### 3.5 Stockholm Conference (UNEP)

The Conference model has been fruitful, however the inexorably coordinated and complete worldwide advancement plan earnestly requires new methodologies. This issue was at the focal point of the plan for Johannesburg. As a result of Stockholm, condition services and offices were built up in excess of 100 nations; a key necessity for conveying forward the aftereffects of the meeting. IT prompted fast increment in the number of non-governmental and intergovernmental associations committed to the natural protection. In a period of twenty year, an estimated ten million associations of this nature were shaped.

The United Nations Environment Program was set up in Nairobi to act as a catalytic instrument to advance the consequences of the Conference. The Declaration and the Action Plan with proposals for deliberate activity embraced at Stockholm were especially instrumental in later fast improvement of international environmental law. The Principle 21 had affirmation specifically centrality as it contained the provisions that states were having the obligation to ensure that exercises close to their locale or control were not the reason for harm to nature past their own borders.

The principles herein in the Charter shall be reflected in law and practice of each state and at the international level. The knowledge of the nature can be further segregated by all possible means, mainly by ecological education which is an integral part of general education. All planning must incorporate among its basic components, plan of techniques for the preservation and assurance of nature, and the foundation of inventories of ecosystems and evaluations of the impacts on the nature of the proposed strategies and exercises, these components must be revealed to the general population by the suitable methods so as to allow the effective counsel and the participation. The assets, programs and authoritative structures that are important to accomplish the target of the preservation of nature shall be provided.

### 3.6 UNCED

The Rio Declaration was set up as a follow-up to the revelation of the United Nations Conference on the Human Environment in Stockholm in June 1972. The Rio Declaration states two prime goals: (1) establishment of a unique and fair global partnership through participation between the States, and key areas of social orders and individuals; and (2) universal understandings which guarantee the regard of the interests of all and safeguards the global ecological and developmental frameworks. In its first guideline, the Rio Declaration states: "People are at the focal point of concerns for sustainable development and they have the right to live a healthy and productive life in complete congruity with the nature. This announcement is bolstered in the "standard 8" by a solicitation to states to "reduce, and eliminate the patterns of production and consumption which are impractical and to advance proper segment arrangements", while other principles affirm the need of connecting ecological protection and the development procedure.

### 3.7 INDIAN LEGAL AND POLICY FRAMEWORK TOWARDS BIODIVERSITY ETHICS

The geographical area of India spreads between latitudes 8<sup>0</sup>4 and 37<sup>0</sup>6 N, longitudes 68<sup>0</sup>7 and 97<sup>0</sup>25'E, covering total area of 3,287,469 sq km. It has four geographical zones which are named as the great mountain zone, plains of the Ganga and the Indus, the desert region and the southern peninsula and the island systems of Lakshadweep and Andaman & Nicobar. The climate of India is controlled and affected by the geographical location, topographical features and the directions of the rain bearing winds. The Himalayas of the north and the seas of the south have the major bearing on the climate. The Central Asia has given the Indian subcontinent elements of tropical climate and the cool moisture laden winds from the seas give it elements of the oceanic climate.

The population of India is 1.35 billion with 48 % of females and 51% of males and this is almost 18% of world population and the growth rate is also having a sharp decline from the earlier decadal growths of 23.9% during 1981-1991.<sup>13</sup> Indian's majority population lives in the villages and they are 68% while the rest is urban population. Since the last census the growth of the urban population has risen due to the migration from the rural areas being a crucial factor contributing in the process.

### 3.8 Biodiversity regulations and Legal Framework in India:

The Forest Act was passed in 1927 and its Objective was:

Consolidate laws regarding the forests, regulate and transit of the forest produce and to levy duty on the timber and other products. The Act also empowers the State Government to compose any forestland or wasteland as the reserved forest and issue notification in the official gazette.<sup>14</sup> The notification should be published in official gazette and unless done it is of no effect. The Act gives the procedural norms for claiming against the government for the loss of legal rights of the indigenous people over the forests.

The forests in the villages are established and the village community is given rights for any land which has been declared as reserved forest. The rules regarding the norms under which the village community can get the fire woods and other forest products or pasture are to be made by the state governments. There must be rules for the assignment of duties to the village for the protection and improvement of the forests.

Drawbacks of the Indian Forest Act 1927-

The Act was not intended to protect the vegetation cover rather regulation of the cutting trees and get revenue which is earned after the cutting of the trees from the forest products. It also constraints the indigenous people who had rights and privileges to use the forests and its products since time immemorial. It focuses on supplying the raw material for the forest based industries, and forest in accepted as the significant factor in the ecological balance and environmental preservation.

Wildlife (Protection) Act 1972

The primary objectives of the enactment is to give protection to the wild animals, birds and plants. The Act authorizes the Central Government to pronounce certain regions as Sanctuaries or National Park. The Act has been upheld for the two primary purposes i.e. to give protection of wild animals, birds and plants and for the issues by some chance or unexpectedly related therewith and guarantee the natural and ecological security of the country.

Environment (Protection) Act, 1986

It is also an enabling law which acts as the nexus for the essential legislative policy on environmental protection and delegate's wide powers to the executive to guarantee the bureaucrats frame important guidelines and rules.

Environment "consists of water, air and land and the interconnectedness among them and individuals, other living animals, plants and microorganisms and property."<sup>15</sup> The Environmental Pollutant "signifies any solid, liquid, or gaseous substance present in such concentration as might be, or tend to be harming to environment.

Biological Diversity Act 2002

The primary aim is to ensure the Conservation of the Biological Diversity and to use the components in sustainable way to confirm the reasonable and legitimate sharing of the advantages emerging out of the utilization of natural resources, information and formatters, associated therewith or coincidental thereto. To accomplish its aim the following prohibitions have been forced: No person (Citizen of India, NRI and body Corporate) will attempt Bio assorted variety related exercises without the approval of the National Authority.

The Act is in accordance with the arrangements of the international laws and strategies, primarily CBD and the Bonn Guidelines. The entire procedure are depicted in the Act and can be contributed considerably to encourage an International system on genetic resources and conventional information.

#### 4. RECOMMENDATIONS:

- There should be a regular review of the environmental laws by the legislature in the light of the problem faced by the executive in their implementation. The legislative measures can succeed only through the involvement if the industries and people.
- There must be dedicated research and development facility for the production and use of environmental friendly technologies. Cleaning the earth has the capability of gaining the status of an industry but would require large scale promotion of research and development.
- In the energy sector, new technologies for environmental sound energy systems, including new and sustainable energy sources and nuclear energy, improving energy efficiency, improving environmental management in mining are potential areas for research where substantial reduction in pollution could be accomplished.
- The judiciary must see that the dormant penal sanctions under the different environmental laws against the 'Offences by Government Departments' are put to adequate use so that officials playing foul with the Indian environment, are made accountable.

#### 5. CONCLUSION:

From the analysis of the heading it has been realized that our rich biodiversity is under continuous threat and the present legislative tools and legal mechanism are not well equipped to deal with these threats as a whole. Till now,

as the Biological Diversity in India is concerned it can be said that the biodiversity is the epicenter of biological organisms, and the ecosystem provides all the natural resources for the nourishment of humans. Soil is the significant medium for the variance of the organism. It is the existential ground for the microbes, fungi, bacteria, insects, millipedes, termites, earthworms etc and they are mainly found inside the soil.

This research work has undertaken the study of such laws and analyzed the major shortcomings that can be seen as, these laws are outdated and lack statements of policy objectives, mutually inconsistent and they lack provisions for the implementation of the machinery as there is no proper procedure for reviewing the efficiency of these laws. Our environmental laws are based on the deterrent theory of criminal justice, but the retributive values of the penalties fail to deter because there is absolute disparity between the retribution and the economic benefits of non-compliance.

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