



Legal safeguards for biological diversity in India

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Abstract

Safeguarding the environment is one of the significant challenges facing the world today. The global community is making unprecedented efforts to protect environmental rights. Climate change has impacted every aspect of human life. It negatively influences human health and longevity, leading to various natural disasters that are beyond human control. Conserving biological diversity is crucial for environmental protection, which is an invaluable right. Besides its aesthetic appeal, biological diversity is vital for environmental stability and climate resilience. Biodiversity safeguards ecosystems, food webs, and food security. India boasts a wealth of medicinal plants that hold significant pharmaceutical value. Additionally, the country is home to many rare species of animals and birds. Following the Stockholm Declaration, environmental law in India has been rapidly advancing. The judiciary has recognized the right to a healthy environment as a fundamental aspect of the right to life. The Biological Diversity Act 2002 is the major legislation to protect biodiversity in India. This paper examines the importance of biological diversity in environmental law and the legal acknowledgment of biodiversity in India.

Keywords: environment, biological diversity, ecosystem, climate change

Introduction

Beyond mere adherence to international agreements, India's pursuit of sustainable development reflects the complex interplay between environmental conservation, social equity, economic prosperity and climate change. Its national goals in this regard require a holistic understanding of sustainable development that balances immediate needs with long-term sustainability, ensuring that present actions do not compromise the well-being of future generations. It acknowledges that solutions to today's challenges must not only address pressing issues but also lay the groundwork for a resilient and equitable future." D.Y. Chandrachud J.

Biological diversity is the term given to the variety of life on earth and the natural patterns it forms. At the 1992 Earth Summit in Rio de Janeiro, world leaders agreed on a comprehensive strategy for sustainable development. One of the key agreements adopted at Rio was the Convention on Biological Diversity^[1]. The Rio Declaration on Environment and Development, and the Statement of principles for the Sustainable Management of Forests were adopted by more than 178 Governments at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil, 1992. Agenda 21 is a comprehensive plan of action to be taken globally, regionally by organizations of the United Nations System, Governments, and Major Groups in every area in which human impacts on the environment^[2]. The UN Sustainable Development Summit 2015 adopted "Transforming Our World: the 2030 Agenda for Sustainable Development", with 17 sustainable development goals (SDGs). Goal 14 is to conserve and sustainably use the oceans, seas and marine resources for sustainable development. Goal 15 is to protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss^[3].

Convention on Biological Diversity

The Convention on Biological Diversity (CBD) entered into force on 29 December 1993. India is a party to the

convention since 1994. The Convention establishes three main goals: the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits from the use of genetic resources^[4]. Article 2 of the CBD defines "Biological diversity" as the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems. "Biological resources" includes genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity. "Sustainable use" means the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.

The treaty recognizes the national sovereignty of the countries over all genetic resources, and provides that access to valuable biological resources be carried out on "mutually agreed terms" and subject to the "prior informed consent" of the country of origin. When a micro organism, plant, or animal is used for a commercial application, the country from which it came has the right to benefit. Such benefits can include cash, samples of what is collected, the participation or training of national researchers, the transfer of biotechnology equipment and know-how, and shares of any profits from the use of the resources. Countries have the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction^[5].

The Convention also recognizes the close and traditional dependence of indigenous and local communities on biological resources and the need to ensure that these communities share in the benefits arising from the use of their traditional knowledge and practices relating to the conservation and sustainable use of biodiversity. Member

governments have undertaken "to respect, preserve and maintain" such knowledge and practices, to promote their wider application with the approval and involvement of the communities concerned, and to encourage the equitable sharing of the benefits derived from their utilization^[6].

Article 7 of the CBD states that each contracting Party shall identify components of biological diversity important for its conservation and sustainable use and monitor it paying particular attention to those requiring urgent conservation measures and those which offer the greatest potential for sustainable use. Article 8 of the CBD, provides detailed guidelines for establishing protected areas for conservation of biodiversity and measures to be taken. Article 9 directs the State parties to adopt measures for the ex-situ conservation of components of biological diversity preferably in the country of origin of such components. Article 10 states that countries shall make sustainable use of components of biological diversity and adopt measures to avoid or minimize adverse impacts on biological diversity. States shall protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements and support local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced.

The Secretariat of the Convention on Biological Diversity (SCBD) is based in Montreal, Canada. Its main function is to assist governments in the implementation of the CBD and its programmes of work, to organize meetings, draft documents, and coordinate with other international organizations and collect and spread information. The Executive Secretary is the head of the Secretariat^[7].

a. Nagoya Protocol on Access and Benefit Sharing (ABS) 2010

The Nagoya Protocol of 2010 is a supplementary agreement to the 1992 Rio de Janeiro Convention on Biological Diversity. The objective of this Protocol is the fair and equitable sharing of benefits arising from the utilization of genetic resources. India signed the Protocol on 11th May 2011, and ratified it on 9th October^[8]. The preamble of Nagoya Protocol, inter alia, recognised the "importance of promoting equity and fairness in negotiations and mutually agreed terms between providers and users of genetic resources". It also recognised "the vital role that women play in access and benefit-sharing and affirming the need for the full participation of women at all levels of policy-making and implementation for biodiversity conservation.

The Protocol provides that benefits arising from the utilization of genetic resources as well as subsequent applications and commercialization shall be shared in a fair and equitable way with the Party providing such resources, that is the country of origin of such resources or a Party that has acquired the genetic resources in accordance with the Convention. Such sharing shall be upon mutually agreed terms. Each Party shall take legislative, administrative or policy measures, as appropriate, with the aim of ensuring that benefits arising from the utilization of genetic resources that are held by indigenous and local communities, in accordance with domestic legislation regarding the established rights of these indigenous and local communities over these genetic resources, are shared in a fair and equitable way with the communities concerned, based on

mutually agreed terms. indigenous and local communities must get their fair and equitable share of parting with their traditional knowledge and resources^[9].

b. The Cartagena Protocol on Biosafety 2000

The Cartagena Protocol on Biosafety is another protocol to CBD. The objective of the protocol is to ensure the safe handling, transport and use of living modified organisms (LMOs) resulting from modern biotechnology that may have adverse effects on biological diversity, taking also into account risks to human health. It was adopted on 29 January 2000 and entered into force on 11 September 2003^[10].

c. The Kunming-Montreal Global Biodiversity Framework (GBF) 2022

It is an international agreement adopted in 2022 by the Parties to the Convention on Biological Diversity (CBD). Its main goal is to halt and reverse biodiversity loss by 2030, and ultimately achieve a vision of living in harmony with nature by 2050. The GBF includes 4 global goals and 23 specific targets for 2030, outlining a global biodiversity action agenda for the next decade^[11].

d. Convention on the Conservation of Migratory Species of Wild Animals (CMC) 1983

The convention also known as Bonn Convention provides for the global conservation and sustainable use of migratory animals and their habitats^[12]. It states that countries shall endeavour to conserve and, where feasible and appropriate, restore those habitats of the species which are of importance in removing the species from danger of extinction and to prevent, remove, compensate for or minimize, as appropriate, the adverse effects of activities or obstacles that seriously impede or prevent the migration of the species; and to the extent feasible and appropriate, to prevent, reduce or control factors that are endangering or are likely to further endanger the species, including strictly controlling the introduction of, or controlling or eliminating, already introduced exotic species^[13].

e. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), (1975)

The objective of Convention is to ensure that international trade in animals and plants does not threaten their survival in the wild. The Convention places a joint responsibility on producer and consumer parties for managing wildlife trade sustainably and preventing illegal trade. CITES regulates international trade in over 36,000 species of plants and animals, including their products and derivatives, ensuring their survival in the wild with benefits for the livelihoods of local people and the global environment^[14].

f. The International Treaty on Plant Genetic Resources for Food and Agriculture (PGRFA) (2004)

The objectives of the treaty are the conservation and sustainable use of all plant genetic resources for food and agriculture and the fair and equitable sharing of the benefits arising out of their use, in harmony with the Convention on Biological Diversity, for sustainable agriculture and food security^[15]. The core of the PGRFA is the Multilateral System (MLS), a defined shared pool of genetic resources comprising many important crops and forages. This is the

ITPGRFA's Access and Benefit-Sharing system. Genetic resources included in the MLS are available for research, breeding and training for food and agriculture purposes. The benefits arising from their use are to be shared through the exchange of information, access to and transfer of technology, capacity-building, and the sharing of the benefits arising from commercialisation^[16].

g. The Ramsar Convention on Wetlands (1971)

The Convention on Wetlands provides the framework for the conservation and wise use of wetlands and their resources^[17]. Wetlands include swamps, marshes, billabongs, lakes, salt marshes, mudflats, mangroves, coral reefs, fens, peat bogs, or bodies of water - whether natural or artificial, permanent or temporary and underground wetlands. Water within these areas can be static or flowing; fresh, brackish or saline; and can include inland rivers and coastal or marine water to a depth of six metres at low tide. Wetlands can be included on the List of Wetlands of International Importance because of their ecological, botanical, zoological, limnological or hydrological importance^[18].

h. The World Heritage Convention (1972)

The Convention defines the kind of natural or cultural sites which can be considered for inscription on the world heritage List. The World Heritage List includes 1223 properties forming part of the cultural and natural heritage which the World Heritage Committee considers as having outstanding universal value. Each country pledges to conserve not only the World Heritage sites situated on its territory, but also to protect its national heritage. The States Parties are encouraged to integrate the protection of the cultural and natural heritage into regional planning programmes, set up staff and services at their sites, undertake scientific and technical conservation research and adopt measures which give this heritage a function in the day-to-day life of the community^[19].

i. The International Plant Protection Convention (I PPC) (1952)

It is the intergovernmental treaty that aims to protect the world's plants, agricultural products and natural resources from plant pests. IPPC develops, adopts and promotes the application of International Phytosanitary Measures (I SPM) as the main tool to safeguard global food security, facilitate safe trade and protect the environment. Keeping plants healthy means safeguarding global food security. Protecting plants and plant resources and important crops from pests will help feed an increasingly hungry world. Facilitating the safe trade of goods by applying international phytosanitary standards will help mitigate the negative impacts of plant pests on the environment, economies and livelihoods. Protecting plants and plant resources from the impact of a warming climate will mitigate the introduction and spread of invasive species, and thus helps to protect the environment and biodiversity^[20].

j. The International Whaling Commission (1946)

The International Whaling Commission was set up in 1946 to regulate the global whaling industry. Several whale species were on the verge of extinction due to the catastrophic over-hunting seen in the late 19th and early 20th century^[21]. The 67th meeting of the International

Whaling Commission (I WC-67) in Florianópolis, Brazil, adopted the "Florianópolis Declaration of 2018" and affirmed the continued moratorium against commercial whaling and amended the Schedule regarding aboriginal subsistence whaling^[22].

Environmental rights in India

Right to environment is not expressly mentioned as a fundamental right in the Constitution of India. But through the creative interpretation of article 21, the honourable Supreme Court has held that right to fresh environment is included under the fundamental right to right to life. Article 48A of the Constitution provides that the State shall endeavour to protect and improve the environment and to safeguard the forests and wild life of the country. Article 51A(g) of the Constitution states that it shall be the fundamental duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures.

There are plethora of legislations that directly dealt with the protection of environment in India. The Environment (Protection) Act, 1986 was enacted to carry out the principle of United Nations Conference on the Human Environment held at Stockholm in June, 1972. The Act defines environment as includes 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-organism and property^[23]. The Bharatiya Nyaya Sanhita penalises certain acts that pollute environment^[24].

The Water (Prevention and Control of Pollution) Act 1974 provide for constitution of Central Pollution Control Board and State Pollution Control Boards to discharge various functions under the Act like maintaining purity of water^[25]. The Air (Prevention and Control of Pollution) Act 1981 confers power on Central Pollution Control Board and State Pollution Control Boards to implement the provisions of the Act^[26]. The Wildlife Protection Act 1972 provides for the appointment of Director of Wild Life Preservation at the centre level. State government appoints Chief Wild Life Wardens, Wild Life Wardens, and Honorary Wild Life Wardens. There is National Board for Wild Life to promote the conservation and development of wildlife and forests. The Board can frame policies and advise the Central and State Governments on promoting wildlife conservation and effectively controlling poaching and illegal trade; recommend setting up and managing national parks and sanctuaries; conduct impact assessment of activities on wildlife; review progress of wildlife conservation; and prepare and publish status reports on wildlife in the country. Central Zoo Authority regulates the functioning of zoos by laying down minimum standards, recognition and de recognition, maintaining records, coordinating personnel training, and providing assistance^[27]. There is a Central Advisory Committee under the Forest (Conservation) Act, 1980 to advise the Central Government on the grant of approval for State Government's use of forest land for non-forest purposes and on any other matter connected with forest conservation which may be referred to it by the Central Government^[28].

a. Judicial interpretation of right to environment

Supreme court gives a purposeful interpretation of environmental rights and gives effect to the international

commitment of India. In *M.K. Ranjitsinh V Union of India* Supreme court held that articles 21 and 14 of the Constitution includes right to a healthy environment and the right to be free from adverse effects of climate change. The writ petition was filed for issuing directions to the government for the conservation of the rare species called Great Indian Bustard (GIB) which is native to southern and western India. The International Union for Conservation of Nature (IUCN) classified the GIB as a 'critically endangered' species. The court has made some interim orders to protect the GIB by prohibiting the installation of transmission lines for the distribution of solar power in an area about 99,000 square kilometres which caused vast adverse implications for the power sector in India. In the final judgement, court removed the prohibition. The court has to balance two conflicting interests namely preservation of endangered species (protection of biodiversity) and promotion of solar energy which is a development goal for a clean future. Supreme Court held that it is necessary to adopt a holistic approach which does not sacrifice either of the two goals at the altar of the other. Care must be taken by all actors including the State and the courts to ensure that both goals are met without compromising on either. Court emphasised that India is a signatory to various conventions that require use of clean fuels like solar power. The court ordered to appoint an expert committee to take a viable solution^[29].

In *Re : T.N. Godavarman Thirumulpad V Union of India* court expressed its concern on the lack of proper implementation of environmental laws. Court observes that rule of law in environmental governance seeks to redress this issue as the implementation gap has a direct bearing on the protection of the environment, forests, wildlife, sustainable development, and public health, eventually affecting fundamental human rights to a clean environment that are intrinsically tied to right to life^[30].

The apex court has applied various international principles of environmental jurisprudence while dealing with different issues of pollution. In *M.C. Mehta V Kamal Nath*, Span Motels Private Limited owns a resort Span Resorts for tourists in the Kullu-Manali valley. It was brought to the notice of the court that the motel authorities encroached the forest areas and diverted the natural flow of river Beas using heavy earth movers which caused serious environmental issues. Mr. Kamal Nath was the Minister of Environment and Forests having close connection with the motel authorities regularised the encroachment of forest land by the motel. The apex court applied the doctrine of Public Trust Doctrine which primarily rests on the principle that certain resources like air sea, waters and the forests have such a great importance to the people as a whole that it would be wholly unjustifiable to make them a subject of private ownership. The said resources being a gift of nature, they should be made freely available to everyone irrespective of the status in life. The doctrine enjoins upon the Government to protect the resources for the enjoyment of the general public rather than to permit their use for private ownership or commercial purposes^[31].

In *Vellore Citizens Welfare Forum V Union of India*, the apex court explained the Precautionary Principle and Polluters Pays principle^[32]. It was observed that "Some of the salient principles of Sustainable Development, as culled out from Brundtland Report and other international documents, are inter-Generational Equity, Use and

Conservation of Natural Resources, Environmental Protection, the Precautionary Principle, Polluter Pays principle, Obligation to assist and cooperate, Eradication of Poverty and Financial Assistance to the developing countries. We are, however, of the view that The Precautionary Principle and The Polluter Pays principle are essential features of Sustainable Development. Environment measures by the State Government and the statutory authorities must anticipate, prevent and attack the causes of environmental degradation. Where there are threats of serious and irreversible damage, lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. The Onus of proof is on the actor or the developer/industrialist to show that this action is environmentally benign.

Indian Council for Enviro-Legal Action V Union of India, is a landmark decision on environmental law. Public Interest litigation was filed pointing out the contamination of soil and groundwater due to disposal of H-acid waste. The Court ruled that "Once the activity carried on is hazardous or inherently dangerous, the person carrying on such activity is liable to make good the loss caused to any other person by his activity irrespective of the fact whether he took reasonable care while carrying on his activity. The rule is premised upon the very nature of the activity carried on"^[33]. In *Divya Pharmacy V Union of India*, Uttarakhand High Court held that both Indian and foreign entities were obligated under the Biological Diversity Act to share benefits with the local and indigenous communities when a biological resource was exploited. It established that Indian companies must seek permission from State Biodiversity Boards to extract biological resources and share benefits with local communities. This case highlights the requirement for fair and equitable benefit sharing (FEBS) as mandated by the Biological Diversity Act, 2002^[34].

Biological Diversity Act 2002

India is a Party to the Convention on Biological Diversity (CBD). The Ministry of Environment, Forest and Climate Change (MoEFCC) is the nodal Ministry for implementation of CBD in India. India is recognized as a leader on biodiversity conservation in developing and implementing relevant legal and policy regimes^[35]. India enacted the Biological Diversity Act to fulfil the mandate of article 6 of the convention. Act recognises that India is rich in biological diversity and associated traditional and contemporary knowledge. The Act was passed to provide for conservation of biological diversity, sustainable use of its components and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge and for matters connected therewith or incidental thereto.

According to section 2(b), biological diversity or biodiversity means 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. Section 2(c) states that biological resources include plants, animals, micro-organisms or parts of their genetic material and derivatives (excluding value added products), with actual or potential use or value for humanity, but does not include human genetic material. Section 2(o) defines sustainable use means the use of components of biological diversity in such manner and at such rate that does not lead to the long-term decline of the biological diversity thereby maintaining its potential to meet the needs and aspirations of present and future generations.

a. Establishment of National Biodiversity Authority

Section 8 provides for the constitution of National Biodiversity Authority (NBA). The Authority shall make regulations for access to biological resources and traditional knowledge associated thereto, and for determination of fair and equitable sharing of benefits. Authority may advise the Central Government on matters relating to the conservation of biodiversity, sustainable use of its components and fair and equitable sharing of benefits arising out of the utilisation of biological resources and advise the State Governments in the selection of areas of biodiversity importance to be notified as biodiversity heritage sites and measures for the management of such heritage sites. The National Biodiversity Authority may, on behalf of the Central Government, take any measures necessary to oppose the grant of intellectual property rights in any country outside India on any biological resource which is found in or brought from India, including those deposited in repositories outside India, or traditional knowledge associated thereto accessed^[36]. Access and Benefit Sharing (ABS) Guidelines, 2014 lays down the principles of benefit sharing.

Special provisions are made in respect of foreign entities like a foreign citizen, non-resident Indian citizen or a body corporate, association or organisation not incorporated or registered in India while dealing with traditional knowledge and biological resource of India. According to section 3 of the Act, the above mentioned categories are prohibited from obtaining any biological resource occurring in India or knowledge associated thereto for research or for commercial utilisation or for bio-survey and bio-utilisation without the permission of National Biodiversity Authority. Prior approval of the national authority is required for transferring result of research on any biological resource occurring in, or obtained or accessed from, India or traditional knowledge associated thereto to the above mentioned persons. If the results of research are used for obtaining commercial utilisation or for obtaining any intellectual property rights, within or outside India, prior approval of the National Biodiversity Authority is essential. Where the results of research are used for further research, then, the registration with the National Biodiversity Authority shall be necessary^[37]. Application for intellectual property rights not to be made without approval of National Biodiversity Authority. Sections 19 and 20 states that Foreign entities or Indian entities with non-Indian participation must seek prior approval from the NBA.

b. State Biodiversity Board

Section 22 of the Act provides for the establishment of State Biodiversity Board (S BB) and section 23 explains the power of the board. The board advise the State Government on matters relating to the conservation of biodiversity, sustainable use of its components and fair and equitable sharing of benefits arising out of the utilisation of biological resources or traditional knowledge associated thereto, in conformity with the regulations or guidelines if any, issued by the Central Government or the National Biodiversity Authority.

The State Biodiversity Boards also regulate biological resource by granting of approvals or otherwise upon requests for commercial utilization or bio-survey and bio-utilization of any biological resource by the Indians. The Local Level Biodiversity Management committees (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]. Section 7 of the Act requires Indian entities to give prior intimation to the S BB before accessing biological resources for commercial use.

c. Duties of the Central Government

Section 36 of the Act explains the duty of central government in protecting the bio diversity. The Central Government shall in consultation with the State Government and Union territories develop national strategies, plans and programmes for the conservation and promotion and sustainable use of biological diversity including measures for identification and monitoring of areas rich in biological resources, promotion of in situ, and ex situ, conservation of biological resources, including cultivars, folk varieties and landraces, incentives for research, training and public education to increase awareness with respect to biodiversity. Where the Central Government has reason to believe that any area rich in biological diversity, biological resources and their habitats is being threatened by overuse, abuse or neglect, it shall issue directives to the concerned State Government to take immediate ameliorative measures, offering such State Government any technical and other assistance that is possible to be provided or needed. The Central Government shall integrate the conservation, promotion and sustainable use of biological diversity into relevant sectoral policies or cross-sectoral plans and programmes and shall take measures for assessment of environmental impact of that project which is likely to have adverse effect on biological diversity, with a view to avoid or minimise such effects and where appropriate provide for public participation in such assessment. The government shall take steps to regulate, manage or control the risks associated with the use and release of living modified organisms resulting from biotechnology likely to have adverse impact on the conservation and sustainable use of biological diversity and human health. The Central Government shall endeavour to respect and protect the knowledge of local people relating to biological diversity, as recommended by the National Biodiversity Authority through such measures, which may include registration of such knowledge at the local, State or national levels, and other measures for protection, including sui generis system. The Central Government may authorise National Biodiversity Authority or any other organisation to take any measure necessary to monitor and regulate within the territory of India, the access and utilisation of biological resources obtained from a foreign country in order to meet the international obligations to which India is a signatory. According to section 38, sCentral Government can notify any species which is on the verge of extinction or likely to become extinct in the near future as a threatened species and prohibit or regulate collection thereof for any purpose and take appropriate steps to rehabilitate and preserve those species.

d. Duties of the State Government

According to section 36B, the State Government shall develop strategies, plans, programmes for the conservation

and promotion and sustainable use of biological diversity, including measures for identification and monitoring of areas rich in biological resources, promotion of in situ, and ex situ, conservation of biological resources, including cultivars, folk varieties and landraces, incentives for research, training and public education to increase awareness with respect to biodiversity, in conformity with the national strategies, plans and programmes.

The State Government shall, as far as practicable, wherever it deems appropriate, integrate the conservation, promotion and sustainable use of biological diversity into relevant sectoral policies or cross-sectoral plans and programmes. On the recommendations of the State Biodiversity Board, State Government may, from time to time, notify in the Official Gazette, areas of biodiversity importance as biodiversity heritage sites and may frame rules for the management and conservation of all the biodiversity heritage sites.

e. Constitution of Biodiversity Management Committee

According to section 41, the local bodies have the duty to constitute a Biodiversity Management Committee within its area for the purpose of promoting conservation, sustainable use and documentation of biological diversity including preservation of habitats, conservation of landraces, folk varieties, farmers' varieties, and cultivars, domesticated stocks and breeds of animals, living things in water bodies and microorganisms and chronicling of knowledge relating to biological diversity. The National Biodiversity Authority and the State Biodiversity Boards shall consult the Biodiversity Management Committees while taking any decision relating to the use of biological resources or traditional knowledge associated thereto occurring within the territorial jurisdiction of the Biodiversity Management Committee.

Conclusion

Protection of biodiversity is crucial for the survival of humanity. In addition to supporting tourism, biological diversity holds importance in relation to human rights. A variety of plants, animals, and microorganisms are vital for maintaining ecological balance and climate stability. India has signed various international agreements that acknowledge and encourage biodiversity.

The Biological Diversity Act 2002 represents India's commitment under The Convention on Biological Diversity and The Nagoya Protocol of 2010. authorities like National Biodiversity Authority, State biodiversity Board and Biodiversity Management Committee

are entrusted with conservation of biological diversity, sustainable use of its components and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge. The rights of local communities must be safeguarded against unscrupulous businesses that exploit traditional knowledge and resources. Careful consideration should be given when granting intellectual property rights related to traditional knowledge. The principles of sustainable development dictate that development and environmental protection must go hand in hand. Development that jeopardizes environmental integrity and biological diversity will not be accepted. Areas that are ecologically sensitive should be preserved. The effective enforcement of the Biological Diversity Act will aid in protecting biodiversity and natural resources in India.

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