

ТЕОРЕТИКО-ИСТОРИЧЕСКИЕ ПРАВОВЫЕ НАУКИ

Научная статья

УДК 349.6; DOI: 10.61260/2074-1626-2024-3-7-21

СТАНОВЛЕНИЕ И РАЗВИТИЕ ЗАКОНОДАТЕЛЬСТВА О СОХРАНЕНИИ БИОРАЗНООБРАЗИЯ В ИНДИИ

✉Agarwal Mala.

B.B.D. college, Chimanpura (Shahpura), Jaipur, Rajasthan, India.

Гавриленко Владимир Александрович.

Санкт-Петербургский университет ГПС МЧС России, Санкт-Петербург, Россия

✉agarwal.mala@yahoo.co.in

Аннотация. Статья посвящена вопросам становления и развития законодательства Индии, регулирующего сферу охраны природы и биологического разнообразия страны. Анализируется национальное законодательство разных периодов, начиная с конца XIX в. и заканчивая началом XXI в. Авторы подробно исследуют особенности правовых актов разных периодов и указывают тенденции их развития, изменения и совершенствования. Формулируются выводы об индийских правовых традициях в природоохранной сфере.

Биоразнообразие представляет собой разнообразие и изменчивость живых организмов и растений на определенной территории. В настоящее время биоразнообразие находится под угрозой из-за освоения, чрезмерной эксплуатации природных ресурсов и загрязнения окружающей среды. Чтобы спасти планету Земля, сохранение природы сейчас обсуждается практически на всех международных площадках. Индия является регионом с огромным биоразнообразием и подписала множество международных конвенций по защите и сохранению природы страны. Следуя этим конвенциям, для защиты от глобальных, а также местных физических, климатических проблем и вмешательства человека, Индия разработала множество политических стратегий, приняла ряд законов и актов по сохранению природы страны. На правительственном уровне было предпринято много усилий, что во многом помогает защитить природу от деградации. В настоящем исследовании обобщены многие акты, принятые парламентом Индии для сохранения биоразнообразия.

Ключевые слова: Индия, биоразнообразие, окружающая среда, экология, международные конвенции, национальное законодательство

Для цитирования: Agarwal Mala, Гавриленко В.А. Становление и развитие законодательства о сохранении биоразнообразия в Индии // Право. Безопасность. Чрезвычайные ситуации. 2024. № 4 (65). С. 7–21. DOI: 10.61260/2074-1626-2024-4-7-21.

Scientific article

FORMATION AND DEVELOPMENT OF BIODIVERSITY CONSERVATION LEGISLATION IN INDIA

✉Agarwal Mala.

B.B.D. College, Chimanpura (Shahpura), Jaipur, Rajasthan, India.

Gavrilenco Vladimir A.

Saint-Petersburg university of State fire service of EMERCOM of Russia, Saint-Petersburg, Russia

✉agarwal.mala@yahoo.co.in

Abstract. Article is devoted to the issues of formation and development of the legislation of India, regulating the sphere of protection of nature and biological diversity of the country. National legislation of different periods is analyzed, starting from the end of the 19th century and ending with the beginning of the 21st century. The authors examine in detail the features of legal acts of different periods and indicate the trends of their development, change and improvement. Conclusions about Indian legal traditions in the sphere of environmental protection are formulated.

Biodiversity is the variety and variability of living organisms and plants in a given area. At present time biodiversity is under threat due to development, overexploitation of natural resources and environmental pollution. To save the planet earth conservation of nature is now being discussed in almost all the international platform. India is a mega-biodiversity region and signatory of many international conventions to protect and conserve the nature. To follow these conventions, to save the biodiversity from global as well as local physical, climatic challenges and human interference,

India has made many policies, passed many laws and enacted a number of acts to conserve the country's nature. A lot of efforts have been made at government level, which is helping a lot to protect the nature for being degraded. The present paper summarises many of the acts passed by the Parliament of India to conserve biodiversity.

Keywords: India, biodiversity, environment, ecology, international conventions, national legislation

For citation: Agarwal Mala, Gavrilenko V.A. Formation and development of biodiversity conservation legislation in India // *Pravo. Bezopasnost'. Chrezvychajnye situacii* = Right. Safety. Emergency situations. 2024. № 4 (65). P. 7–21. DOI: 10.61260/2074-1626-2024-4-7-21.

Introduction

India is one of the seventeen mega diverse countries. The diverse physical features and climatic conditions of India are responsible for a variety of ecosystems such as forests, grasslands, wetlands, and desert, coastal and marine ecosystems. It is situated at the tri-junction of the Afro-tropical, Indo-Malayan and Pale arctic realms, all of which support rich biodiversity. India has ten biogeographic zones and houses 11,80 % species of plants, 8,58 % species of mammals, 13,66 % species of aves, 7,91 % species of reptiles, 4,66 % species of amphibians, and 11,72 % species of fishes. Out of 34 globally identified biodiversity hotspots, four spots namely the Himalaya, Indo-Burma, the Western Ghats-Sri Lanka and Sunda land, belong to India. The country is also a recognized center of crop diversity and produces hundreds of varieties of crop plants such as rice, maize, millets etc. [1].

India's biodiversity faces several global and regional threats, changes in established weather patterns due to global warming are causing shifts in the distribution of species, breeding patterns, and increasing vulnerability to diseases. Rising sea levels and increased ocean acidification endanger coastal and marine biodiversity. The melting Himalayan glaciers threaten the unique species adapted to cold environments in the high-altitude biospheres. One of the most profound threats to biodiversity in India comes from habitat loss and fragmentation due to urbanization, infrastructure development, deforestation, pollution, and climate change, causing the displacement of wildlife and the destruction of habitats [2].

India is a signatory to several major international conventions relating to the conservation and management of wildlife. Some of these are the Convention on Biological Diversity, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Convention on the Conservation of Migratory Species of Wild Animals, etc. Indian Government is taking steps to conserve biodiversity by making policies, protecting forest and wild life, and making laws to protect the flora, fauna and ecosystems of country. A number of laws have been enacted.

1. The Fisheries Act, 1897.
2. The Destructive Insects and Pests Act, 1914.
3. The Indian Forest Act, 1927.
4. The Agricultural Produce (Grading and Marketing) Act, 1937.
5. The Indian Coffee Act, 1942.
6. Import and Export Act, 1942.
7. The Rubber (Production and Marketing) Act, 1947.
8. The Tea Act, 1952.
9. Mining and Mineral Development (Regulation) Act, 1957.
10. Prevention of Cruelty to Animal Act, 1960.
11. The Customs Act, 1962.
12. The Spices Board Act, 1986.
13. The Seeds Act, 1966.

14. The Patents Act, 1970.
15. The Wildlife (Protection) Act, 1972.
16. Marine Products Export Development Authority Act, 1972.
17. The Water (Prevention and Control of Pollution) Act, 1974.
18. Tobacco Board Act, 1975.
19. Territorial Water, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Act, 1976.
20. Water (Prevention and Control of Pollution) Cess Act, 1977.
21. Maritime zones of India (Regulation and fishing by Foreign Vessels) Act, 1980.
22. Forest Conservation Act, 1980.
23. Air (Prevention and control of Pollution) Act, 1981.
24. Agricultural and Processed Food Products Export Development Authority Act, 1985/1986.
25. Environment (Protection) Act, 1986.
26. The Spices Act, 1986.
27. National Dairy Development Board, 1987.
28. Rules for the manufacture, use/import/export and storage of hazardous microorganism/genetically engineered organism or cells, 1989.
29. Foreign Trade (Development and Regulation) Act, 1992.
30. Protection of Plant varieties and Farmer's Rights (PPVFR) Act, 2001.
31. The Biological Diversity Act, 2002.
32. Plant Quarantine (Regulation of Import into India) order 2003.
33. The Biological Diversity Rules, 2004.
34. The Food Safety and Standards Act, 2006.
35. Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.
36. The National Green Tribunal Act, 2010.

Biodiversity Loss

Biodiversity, as measured by the numbers of variety and variability in plants, animals and microorganisms species is greatest in the tropics. India is a mega-biodiversity region. Threats to richness in species is principally due to a decline in the areas of their habitats, fragmentation of habitats and declines in habitat quality, and, in the case of some mammals, hunting [3]. Fragmentation raises the extinction risk because isolated subpopulations can go extinct one by one without being repopulated. In terrestrial species, the habitat quality and quantity are adversely affected due to conversion of forests and grasslands to agriculture, of natural forests to monoculture plantations, and from grazing and woodcutting pressures. Besides this, exotic species invasion also results in habitat degradation. E.g. the spread of the *Prosopis juliflora* in the dry parts of northern India here it has replaced native species such as *Acacia nilotica*, and the spread of the *Lantana camara* in the sub-Himalayan belt. In case of aquatic and semi-aquatic species, diversion of ground and surface water causes decline in habitat quality resulting in the drying up of streams and other water bodies, from siltation, and pollution [4].

Importance of Biodiversity

Biodiversity is valuable due to many reasons [5].

1. Pharmaceutical value.
2. Ecological value. Loss of biodiversity may trigger large unpredictable changes in an ecosystem, some of these may adversely impact agriculture or human health, maybe through induced changes in hydrology or pest populations.
3. Tourism. The principal attraction for tourists in areas such as the Silent Valley National Park in Kerala is biodiversity. While biodiversity per se may not be the attraction for most tourists visiting areas with high biodiversity, their willingness to pay for the preservation of such areas

in their «natural» state or for the survival of some charismatic species of birds and animals means that habitat protection for these species has a market demand and biodiversity conservation thus finds a source of finance.

4. Existence value. This may be negligible for the bulk of the Indian population but may be quite significant for a minority among the relatively wealthy as well for a minority in developed countries.

Biodiversity Conservation through law and Acts

The Biological Diversity Act, 2002 [6].

The Biological Diversity act was passed by the parliament of India to protect biodiversity, to facilitate the sustainable management of natural resources with community participation as per the requirements of the United Nations Convention on Biological Diversity (CBD) Objective – to ensure the conservation of biological diversity, sustainable use of its components and fair usage of its resources to prevent overuse of biodiversity.

The salient features of the Biological Diversity Act are:

- to Regulate the access to biological resources of the country;
- to conserve and sustainable use of biological diversity;
- to protect the knowledge of local communities for biodiversity, to acknowledge them as conservers of biological resources and recognize their knowledge for use of biological resources;
- to Protect and rehabilitate threatened species;
- involvement of institutions of State Governments for the implementation of the Biological Diversity Act through the participation of local committees;
- any offense under this Act is non-bailable and cognizable, any grievances related to the determination of benefit sharing or order of the National Biodiversity;
- authority or a State Biodiversity Board under this Act shall be taken to the National Green Tribunal (NGT).

The Act excludes:

- Indian biological resources that are normally traded as commodities, however, they are for the biological resources that are used as commodities and for no other purpose;
- traditional uses of Indian biological resources and associated knowledge as well as there use in collaborative research projects between Indian and foreign Institutions with the approval of the Central Government;
- there uses by cultivators and breeders, e.g. farmers, livestock keepers and beekeepers and traditional healers e.g. vaid and hakims

National Biodiversity Authority

The National Biodiversity Authority (NBA), a statutory, autonomous body with headquarters in Chennai carry out the provisions of the act, under the Ministry of Environments and Forest constituted by the Government of India in 2003. In states this work is done by the State Biodiversity Boards (SBB) along with Biological management committees.

The Central Government in consultation with the NBA has to notify threatened species and prohibit/regulate their collection, rehabilitation, and conservation. It also designates institutions as repositories for different categories of biological resources. The NBA also gives advice to the government to conserve biodiversity in India. NBA prepares a report to select biological heritage sites, to make concrete steps to prevent the grant of intellectual property rights regarding locally used biological resources/allied traditional knowledge.

Composition of the National Biodiversity Authority consists of the following members to be appointed by the Central Government, namely:

1. Chairperson.
2. Three ex officio members, one representing the Ministry dealing with Tribal Affairs and two representing the Ministry dealing with Environment and Forests.
3. Seven ex-officio members to represent respectively the Ministries of the Central Government dealing with:
 - agricultural research and education;
 - biotechnology;
 - ocean development;
 - agriculture and cooperation;
 - Indian systems of medicine and homoeopathy;
 - science and technology;
 - scientific and industrial research.

Permission from NBA is required if a foreign individuals/corporate body seek to obtain knowledge/ allied resources for the purpose of research, survey, and commercial utilization, and for the outcome of research that had utilized biological resources from India by any foreigner/foreign company however, publication of the research in a journal done by institutions that affiliated with the Central Government does not require it. Indian citizens/corporate seeking to the same need to take permission from their respective State Biodiversity Boards.

State Biodiversity Boards (SBBs)

The Section 22 of the Act has provisions for the establishment of SBBs by the State Governments to deal with all matters relating to access by Indians for commercial purposes [7]. SBBs advises the State Government on matters of biodiversity, its equitable distribution, on matters relating to the conservation, sustainable use or sharing equitable benefits. It also regulates granting approvals/requests for commercial utilization or bio-survey and bio-utilization of any biological resource by people.

Composition:

- chairperson;
- five ex officio members to represent the concerned Departments of the State Government;
- five members from amongst experts in matters relating to conservation of biological diversity, sustainable use of biological resources and equitable sharing of benefits arising out of the use of biological resources.

All the members of the SBB are appointed by the respective State Governments.

Biodiversity Management Committees (BMCs)

Section 41 of the Act has provisions that every local body shall constitute the BMC within its area for the purpose of promoting conservation, sustainable use and documentation of biological diversity.

Its main function is to prepare the People's Biodiversity Register in consultation with the local people. The PBRs focuses on participatory documentation of local biodiversity, traditional knowledge and practices. It is a key legal document in ascertaining the rights of local people over the biological resources and associated traditional knowledge. The register contain comprehensive information on the availability and knowledge of local biological resources, their medicinal or any other use or any other traditional knowledge associated with them. Besides, it provides education and awareness on eco-restoration of the local biodiversity. Moreover, it provides feedback to the SBB in the matter of IPR, traditional knowledge and local Biodiversity issues. The PBR also speaks about the conservation of traditional varieties/breeds of economically important plants/animals. Its function also includes management of heritage Sites including heritage trees, animals/microorganisms, Sacred Groves and Sacred Water bodies.

Composition:

- chairperson elected among the members of the committee in a meeting to be chaired by the Chairperson of the local body;
- six persons elected by the local body, out of BMC members, not less than one third should be women and not less than 18 % should belong to the Scheduled Castes/Scheduled Tribes.

Biological Diversity Act, 2002

Biological Diversity (BD) Act, 2002 is useful in environmental protection by the management and conservation of heritage sites, compensating or rehabilitating any section of the people economically affected when an area is declared Biodiversity heritage site as well as conservation and promotion of biological resources. It is also helpful in the conservation of flora and fauna as there are provisions for setting up the National Biodiversity Authority, State Biodiversity Board, and Biodiversity Management Committee for proper management of biological resources.

The Biological Diversity Act, 2023

The BD Act, 2002 [8], required multi-stage permissions from the NBA to access resources for commercialisation, as well as for filing patent applications regarding the use of Indian biological resources. Non-compliance with the provisions could attract penalties that include fines and imprisonment. The BD Act, 2023 passed by amending the BD act, 2002 after two years of consideration to enable collaborative research and investments and to ease the requirement of obtaining NBA permissions before the grant of a patent application.

Amendments in the BD Act, 2002:

1. Decriminalisation: the amendments to section 55 of the Act have removed the provision on imprisonment and increased the quantum of fines.
2. Exemption from seeking NBA permission for Indian entities: In the BD Act, 2002, any Indian entity with mere non-Indian participation in its share capital or management, would be required to seek permission to access Indian biological resources for research, commercial utilisation or knowledge associated thereto. The Section 3(2) amended, now only those Indian entities which are directly controlled by a foreign entity need such permissions.
3. Intellectual Property Rights (IPR): the Section 6 amended to clarify the process for obtaining an IP disclosing Indian biological resources and associated traditional knowledge. Indian entities now only need to register such information with the NBA while filing an application for a patent/any IP and seek prior approval in case the patent is commercialised, however, non-Indian entities will still be required to seek prior approvals.
4. Use of foreign bio resources: a new section 36A added to authorise the NBA to monitor and regulate the access and utilisation of biological resources obtained from foreign countries.
5. Expansion of NTAC exemption list: the list of biological resources Normally Traded as Commodities (NTAC) has been expanded to include derivatives of NTAC bio resources, agricultural wastes, cultivated medicinal plants and their products, however, restricted to Indian entities and applies to trading purposes only as was the case earlier.

Environment (Protection) Act, 1986

The Act is one of the most comprehensive legislations with a pretext to protection and improvement of the environment. It empowers the Central Government to establish authorities for preventing environmental pollution in all its forms and to tackle specific environmental problems that are peculiar to different parts of the country [9]. The act was enacted to implement the decisions made at United Nations Conference on the Human Environment, 1972, in which India was a signatory.

The EPA Act was enacted following the certain provisions of the Constitution of India:

Article 48A – Article 48A states «The State shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country».

Article 51A – Clause (g) to Article 51A of the Indian constitution states «It shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers, and wildlife and have compassion for living creatures».

Article 253 – Article 253 of the Indian constitution gives power to Parliament to form any law for the whole or any part of the territory of India. Such power is given for the implementation of any international treaty, agreement, and convention.

Powers of the Central Government: The Central Government shall have the power to take all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of the environment in coordination with the State Governments. The Central Government is also empowered to Plan and Execute a nation-wide programme for the prevention, control and abatement of environmental pollution, and also to lay down standards for the quality of environment in its various aspects and standards for emission or discharge of environmental pollutants from various sources. The restriction of areas in which any industries, operations or processes or class of industries, operations or processes shall not be carried out subject to certain safeguards. The Central Government may appoint officers under this Act for various purposes and entrust them with the corresponding powers and functions.

The Central Government as per the Act has the power to direct:

- the closure, prohibition or regulation of any industry, operation or process;
- the stoppage or regulation of the supply of electricity or water or any other service;
- restriction on Pollutant Discharge: no individual or organisation shall discharge/emit or permit to discharge/emit any environmental pollutant in excess of the prescribed standards;
- compliance with Procedural Safeguards: no individual shall handle or shall be caused to handle any hazardous substance except in accordance with the procedure and without complying with the safeguards, as prescribed;
- powers of Entry and Inspection: any person empowered by the Central Government shall have a right to enter (with the assistance deemed necessary) at any place for: the inspection of compliance of any orders, notifications and directions given under the Act; the purpose of examining (and if required seizing) any equipment, industrial plant, record, register, document or any other material object may furnish evidence of the commission of an offence punishable under this Act;
- establishment of Environmental Laboratories: the Central Government, as per the act, is entitled to establish environmental laboratories / Recognise any laboratory/institute as environmental laboratories to carry out the functions entrusted to such a laboratory;
- appointment of Government Analyst: a Government Analyst is appointed by the Central Government for the analysing the samples of air, water, soil or other substance sent to a recognised environmental laboratory;
- penalties for Offences: non-compliance or Contravention to any of the provisions of the Act is considered as an offence;
- any offences under the EPA are punishable with the imprisonment of up to five years or a fine up to one lakh rupees or both;
- offences by Companies: if an offence under this Act is committed by a company, every person directly in charge of the company, at the time of the commitment of offence, is deemed to be guilty unless proven otherwise;
- offences by Government Departments: if an offence under this Act has been committed by any Department of Government, the Head of the Department (HoD) shall be deemed to be guilty of the offence unless proven otherwise;
- any officer, other than HoD, if proven guilty, shall also be liable to be proceeded against and punished accordingly;

– cognizance of offences: no Court shall take cognizance of any offence under this Act except on a complaint made by: the Central Government or any authority on behalf of the former; a person who has approached the Courts after a 60-day notice has been furnished to the Central Government or the authority on its behalf.

National Environment Appellate Authority (NEAA) and National Green Tribunal (NGT)

The Central Government has established under the «The National Environment Appellate Authority Act», 1997, to hear appeals regarding the restriction of areas in which any industries, processes or operations shall be/shall not be carried out subject to certain safeguards under the Environment (Protection) Act, 1986. Due to the need of stronger base the National Green Tribunal (NGT) was established in 2010 under the National Green Tribunal Act, 2010 for effective and expeditious disposal of cases relating to environmental protection.

Air (Prevention and Control of Pollution) Act, 1981

The Air act is the first concrete step of the government of India to combat air pollution to prevent and control the harmful effects of air pollution in India [10]. The act was passed on the background of the United Nations General Assembly on Human Environment held in Stockholm in June 1972, where a resolution was passed which implored the nations of the world to preserve natural resources such as air. The air act defines «air pollution» as the presence of any dangerous pollutant that makes the air un-breathable:

– Section 2 (a) defines an «air pollutants» as any solid liquid or gaseous substance which may cause harm or damage the environment, humans, plants, animals or even damage property. A 1987 amendment to the act also added «noise» in the list of harmful substances;

– Section 2 (g) of the Act also set up the Central Pollution Control Board (CPCB) whose powers extended to the whole of India. To carry out the directives of the CPCB the act also called for the setting up of the State Pollution Control Board (SPCB) for the individual states of India.

Penalties and Procedure. The failure to comply with the Central Pollution Control Board directives would result in imprisonment of 1 to 6 years with the additional fine of 5 000 Rs per day added provided the directives are still not met. Any environmental complaint will only be taken into consideration by a court if it is made by the following:

– an officer authorised by the CPCB;

– a person who has made a complaint to the board or an officer authorised by it.

The complaint must be made within sixty days of the offence committed.

The Forest (Conservation) Act, 1980

The Forest (Conservation) Act of 1980 (FCA, 1980) ensures the conservation of forests and their resources. It was enacted by the Parliament of India to control the ongoing deforestation of the forests of India and came into force on October 25, 1980 [11].

Objectives. To arrest the loss of biodiversity by protecting the forest along with its flora, fauna and other diverse ecological components while preserving the integrity and territory of the forests. The act also aims to prevent forest lands being converted into agricultural, grazing or for any other commercial purposes and intentions.

Features:

– the Act restricts the State Government and other authorities to take decisions first without permission from the Central Government and gives complete authority to the Central Government to carry out the objectives of the act;

– the Forest Conservation Act will have an advisory committee which will help the Central Government with regard to forest conservation;

– the Act levies penalties in case of violations of the provisions of FCA.

The act has five sections.

Section 1: Title and scope.

The law applies to the whole of India except for Jammu and Kashmir.

Section 2: Restriction of forests being used for non-forest purposes.

The section lists restrictions, where state authorities cannot make laws regarding forest without the permissions of the Central Government.

Any reserved forest cease to be reserved.

Any forest land or any portion thereof may be used for non forest purpose.

Any forest land or any portion thereof may be cleared of trees which have grown naturally in that land or portion, for the purpose of using it for afforestation.

(the emphasis is on «non-forest purposes» which means that clearing forest and for the planting of Tea, Coffee, Spices, Rubber, Palms, Oil& Medicinal plants).

Section 3: Advisory committee.

The Central Government has the power to constitute an advisory committee to advice on matters related to advising the Central Government on the grant of approval under Section 2, and any other matter connected with the conservation of forests which may be referred to it by the Central Government. Section 3A imposes penalty for contravention of the provisions of the Act and section3B is for the offences by authorities and Government departments.

Section 4: The Central Government may by notification in the Official Gazette, makes rules for carrying out the provisions of this Act.

Section 5: Repeal and Saving.

Amendments to the Forest Conservation Act, 1980

To balance economic and ecological concerns regarding the Forest Conservation Act, 1980 several amendments were proposed by the Union Ministry of Environment, Forest and Climate Change in March 2021 [12]. Some amendments were as follows:

1. The proposed new «section 1A» created a provision which exempts survey and exploration for underground oil and natural gas, hence, such activities will no longer be classified as a «non-forest activity» and will not require permission from the government. However, there will be certain conditions laid by the Central Government to carry out such activities, one of which being, survey and drilling activities will not be carried out within the proximity of wildlife sanctuaries.

2. Land acquired for railway networks will be exempted to FCA; however, guidelines will be laid down by the Central Government for planting trees to compensate for the loss of forest lands.

3. Section 2 of the act requires government approval for leasing forest lands not owned by the Central Government for any commercial purposes to private entities. This clause has been deleted in the proposed amendment.

4. Now in Section 2 exemption to the plantation of native species of palm and oil trees from the definition of «non-forest purpose», with conditions for compensatory afforestation and payment of other levies and compensations.

5. The proposed amendments to FCA add to the list of non-forestry purposes activities such as building checkpoints, fence boundary, and communication infrastructure. It may also add ecotourism facilities approved under the Forest Working Plan or Working Scheme approved by the Central Government.

The Water (prevention and control of pollution) Act, 1974

The Water Act, 1974 is a comprehensive legislation that regulates agencies responsible for checking on water pollution and ambit of pollution control boards both at the centre and states [13]. The Act came into force in 1974 and is applicable to the states of Assam, Bihar, Madhya Pradesh, Gujarat, Haryana, Tripura, West Bengal, Jammu and Kashmir, Rajasthan, Kerala, and the union territories.

Section 2: Definitions.

(d) Occupier. It means the person who has control over the affairs of the factory or the premises, and it includes the person in possession of the substance.

(dd) Outlet. It includes any conduit pipe or channel, open or closed, carrying sewage or trade effluent or any other holding arrangement which causes, or is likely to cause, pollution.

(e) Pollution. It means such contamination of water or such alteration of the physical, chemical or biological properties of water/such discharge of any sewage/trade effluent/ of any other liquid, gaseous/solid substance into water as may/likely to, create a nuisance/render such water harmful/injurious to public health/safety/to domestic, commercial, industrial, agricultural/other legitimate uses/to the life and health of animals/plants/ aquatic organisms.

(g) Sewage effluent. It means effluent from any sewerage system/sewage disposal works and includes sullage from open drains.

(j) Stream. It includes river, water course, inland water, sub-terranean waters, sea or tidal waters to such extent or, as the State Government may, by notification in the Official Gazette, specify in this behalf.

(k) Trade effluent. It includes any liquid, gaseous or solid substance which is discharged from any premises used for carrying on any [industry, operation or process, or treatment and disposal system], other than domestic sewage.

Central Pollution Control Board:

Section 3. The Central Government through a notice in the official gazette has the power to assign or set up a Central Board named as Central Pollution Control Board.

Composition:

- chairman who has the knowledge or has practical experience in dealing with cases relating to environmental protection. The chairman is to be appointed by the Central Government only;

- not more than five officials to represent the Central Government;

- not more than five members to be nominated by the central government from the members of the State Board;

- maximum three members appointed by the Central Government to represent the interests of agriculture, fisheries, trade or any other interest as the government may seem fit;

- two persons to represent the companies or corporations owned, controlled or by the central government;

- a full-time member secretary having complete knowledge, experience and qualification of scientific management and prevention of environmental pollution.

Section 16. Functions :

- advise the Central Government on any matter concerning the prevention and control of water pollution;

- coordinate the activities of the State Boards and resolve disputes among them;

- provide technical assistance and guidance to the State Boards, carry out and sponsor investigations and research relating to problems of water pollution and prevention, control or abatement of water pollution;

- plan and organize the training of persons engaged or to be engaged in for the prevention, control or abatement of water pollution on such terms and conditions as the Central Board may specify;

- organize through mass media a comprehensive program regarding the prevention and control of water pollution.

State Pollution Control Board:

Section 4. The State Government through an official notice in the Gazette has the power to assign or set up a state board named as State Pollution Control Board.

Composition :

- chairman who either has the knowledge or some experience in dealing with cases relating to environmental pollution;

- not more than five members appointed by the State Government to represent the government;
- not more than two persons by the State Government who are functioning as members of the local authorities within the state;
- not more than three persons nominated by the State Government to represent the interest of fisheries, agriculture, trade and any other interest as the government may seem fit;
- two person from companies, corporations which are either controlled, owned or managed by the state;
- a member secretary who has the knowledge, qualifications, and experience in dealing with cases pertaining to environmental pollution.

Section 17. Functions:

- to plan a comprehensive program for preventing and controlling the pollution of the wells and streams in the state and to secure its execution;
- to advise the State Government on matters relating to prevention and controlling water pollution;
- collaborating with the central board to train persons employed or to be employed in preventing, controlling water pollution;
- to lay down, modify the effluent standards of sewage and trade effluents and for the quality of receiving water resulting from the discharge of effluents and to classify waters of the state;
- to evolve methods of utilizing the sewage and suitable trade effluents in agriculture;
- the state Board has the authority to set up laboratories to enable the board to perform its function efficiently, including collecting samples of water from any stream or sewage or trade effluents.

Joint Board.

An agreement may be entered into by the State Government of one state with the State Government of another state to set up a joint Board. Similarly, the Central Government and the government of other union territories can also enter into an agreement for constituting a joint board.

Section 14. Composition:

- chairman who has the knowledge, experience, and qualifications in matters relating to prevention and controlling environmental pollution;
- two members from each State Government nominated by their respective state to represent the state;
- a nonofficial appointed by each state to represent the interests of agriculture, fisheries, trade or any other interest of the participating state;
- two members from the companies, corporations nominated by the central government which is owned, controlled or managed by the participating state;
- a full-time member secretary who has the required skills, experience and qualifications in science, engineering or management aspect of controlling and preventing pollution to be appointed by the Central Government.

Section 6. Disqualification of Members.

Section 8. Meetings.

The Board shall meet at least once in three months.

Section 9. Appointment of Committees: It empowers the Board to constitute/appoint as many committees as it may think fit.

Wildlife Protection Act, 1972

This Act provides for the protection of the country's wild animals, birds, and plant species, in order to ensure environmental and ecological security [14]. Among other things, the Act lays down restrictions on hunting many animal species. The act helped India to become a party

to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and for the first time, a comprehensive list of the endangered wildlife of the country was prepared. The National Board for Wildlife, chaired by the Prime Minister was constituted as a statutory organization under the provisions of this Act. The chief function of the Board is to promote the conservation and development of wildlife and forests. This is an advisory board that offers advice to the Central Government on issues of wildlife conservation in India. It is also the apex body to review and approve all matters related to wildlife, projects of national parks, sanctuaries, etc.

This Act provides for:

- the protection of a listed species of animals, birds, and plants, and also for the establishment of a network of ecologically-important protected areas in the country;
- the formation of wildlife advisory boards, wildlife wardens, specifies their powers and duties, etc.;
- prohibition of the hunting of endangered species. Scheduled animals are prohibited from being traded as per the Act's provisions;
- for licenses for the sale, transfer, and possession of some wildlife species;
- for the establishment of wildlife sanctuaries, national parks, etc., and paved the way for the formation of the Central Zoo Authority, established in 1992;
- for the establishment of the National Tiger Conservation Authority.

It is a statutory body of the Ministry of Environment, Forest and Climate Change with an overall supervisory and coordination part, performing capacities as given in the Act. Its mandate is to strengthen tiger conservation in India.

It gives statutory authority to Project Tiger which was launched in 1973 and has put the endangered tiger on a guaranteed path of revival by protecting it from extinction.

Protected Areas.

There are five types of protected areas as provided under the Act. They are described below.

1. Sanctuaries: State Governments declare for them by a Notification, boundaries can be altered by a Resolution of the State Legislature. «Sanctuary is a place of refuge where injured, abandoned, and abused wildlife is allowed to live in peace in their natural environment without any human intervention». They are naturally occurring areas where endangered species are protected from poaching, hunting, predation and from any sort of disturbance. Limited human activities such as timber harvesting, collecting minor forest products, and private ownership rights are permitted. They are open to the general public (escorted). Biologists and researchers are permitted inside so that they can study the area and its inhabitants. Sanctuaries can be upgraded to the status of a «National Park».

2. National Parks: national parks can be declared by the State Government by Notification. The main objective of a national park is to protect the natural environment of the area and biodiversity conservation. The landscape, fauna, and flora are present in their natural state in national parks. Their boundaries are fixed and defined. Here, no human activity is allowed. Species mentioned in the Schedules of the Wildlife Act are not allowed to be hunted or captured. No person shall destroy, remove, or exploit any wildlife from a National Park or destroy or damage the habitat of any wild animal or deprive any wild animal of its habitat within a national park.

3. Conservation Reserves: the State Government may declare an area, particularly those adjacent to sanctuaries or parks as a conservation reserve after consulting with local communities.

4. Community Reserves: the State Government may declare any private or community land as a community reserve after consultation with the local community or an individual who has volunteered to conserve the wildlife.

5. Tiger Reserves: these areas are reserved for the protection and conservation of tigers in India. They are declared on the recommendations of the National Tiger Conservation Authority.

Schedules of the Wildlife Protection Act

There are six schedules provided in the Wildlife Protection Act.

Schedule I. Covers endangered species, which need rigorous protection and therefore, provides for the harshest penalties for violation of the law. These species are prohibited to be hunted throughout India, except under threat to human life. Absolute protection is accorded to species on this list. The Trade of these animals is prohibited. Examples: tiger, blackbuck, Himalayan Brown Bear, Brow-Antlered Deer, Blue whale, Common Dolphin, Cheetah, Clouded Leopard, hornbills, Indian Gazelle, etc.

Schedule II. Animals under this list are also accorded high protection. Their trade is prohibited. They cannot be hunted except under threat to human life. Examples: Kohinoor (insect), Assamese Macaque, Bengal Hanuman langur, Large Indian Civet, Indian Fox, Larger Kashmir Flying Squirrel, Kashmir Fox, etc.

Schedule III & IV. This includes protected species but the penalty for any violation is less compared to the first two schedules.

The Prevention of Cruelty to Animals Act, 1960 (The PCA Act, 1960)

This is for the intent to «prevent the infliction of unnecessary pain or suffering on animals», the first enacted law for safeguarding the rights and protecting the animals from pain and suffering inflicted by humans [15]. The Animal Welfare Board of India (AWBI) was established in 1962 under Section 4 of the Act. This Act provides for the limitation period of three months beyond which no prosecution shall lie for any offences under this Act. The Act has established the definition of animals to include any living creature other than human beings and different forms of animals. In order to protect the animals from lifetime agony and pain, the act has set forth punishments for causing unnecessary cruelty and suffering to animals, act further discusses different forms of cruelty inflicted on animals, its exceptions and the process of killing a suffering animal, when cruelty has been imposed, to avoid any further suffering for that animal. The act provides the guidelines relating to experimentation on animals for scientific purposes.

The Prevention of Cruelty to Animals (Care and Maintenance of Case Property Animals) Rules, 2017. These rules have been framed under the Prevention of Cruelty to Animals Act, 1960. The Rules allow a Magistrate to forfeit the cattle of an owner facing trial under the Act. The animals are then sent to infirmaries, animal shelters, etc. The authorities can further give such animals for «adoption».

The draft Prevention of Cruelty to Animal Act (Amendment) Bill-2022 has been prepared by the Ministry of Fisheries, Animal Husbandry and Dairy. The draft proposes a maximum 5-year imprisonment, along with a fine, for killing an animal. For this, a new clause has been proposed. The Act defines gruesome cruelty as «an act that leads to extreme pain and suffering to the animals which may cause lifelong disability or death». The draft also proposes the insertion of a new Section 3A, which provides «five freedoms» to animals. It shall be the duty of every person having charge of an animal to ensure that the animal in his care or under his charge has:

- freedom from thirst, hunger and malnutrition;
- freedom from discomfort due to environment;
- freedom from pain, injury and diseases;
- freedom to express normal behaviour for the species;
- freedom from fear and distress.

Indian Forest Act, 1927

The Indian Forest Act, 1927 aimed to regulate the movement of forest produce, and duty liveable forest produce [16]. It also explains the procedure to be followed for declaring an area as Reserved Forest, Protected Forest or a Village Forest. It's main objectives were:

- to consolidate all the previous laws regarding forests;
- to give the Government the power to create different classes of forests for their effective usage for the colonial purpose;
- to regulate movement and transit of forest produce, and duty leviable on timber and other forest produce;
- to define the procedure to be followed for declaring an area as Reserved Forest, Protected Forest or Village Forest;
- Reserved Forests: Reserve Forests are the most restricted forests, constituted by the State Government on any government owned forest land/wasteland. In Reserved Forests, local people are prohibited, they can only be allowed by a Forest Officer in the course of the settlement;
- Protected Forests: the State Government can declare any land other than Reserved Forests as Protected Forests over which the government has proprietary rights and the power to issue rules regarding the use of such forests. This power has been used to establish State control over trees, whose timber, fruit or other non-wood products have revenue-raising potential;
- village forest: State Government may assign to «any village community the rights of government to or over any land which has been constituted a reserved forest»;
- to define forest offences acts prohibited inside the reserved forest, and penalties liveable on the violation;
- to make conservation of forests and wildlife more accountable.

Conclusion

India has a long tradition of biodiversity conservation. Since ancient times we have traditions of conserving environment, long before the term conservation coined. At present India is signatory of various international conventions as well as making all efforts to conserve the environment. The various laws have been enacted successfully. In modern times, emphasis is being placed on the people's participation, farmers, tribals and cultivars right on biodiversity and local peoples and community participation to strengthen the conservation efforts. There are a lot of programs and events for protection an environment.

References

1. India's Fifth National Report to The Convention on Biological Diversity, MoEF, GOI. URL: <https://moef.gov.in/wp-content/uploads/2019/03/Indias-Fifth-National-Report-to-CBD-compressed.pdf> (дата обращения: 15.09.2024).
2. Somanathan E. Biodiversity in India Indian statistics Institute. URL: https://www.isid.ac.in/~som/papers/BiodiversityinIndia_rev.pdf (дата обращения: 15.09.2024).
3. Kumar A., Walker S., Molur S. Prioritisation of Endangered Species. Setting Biodiversity Conservation Priorities for India / S. Singh, A.R.K. Sastry, R. Mehtaand, V. Uppal. New Delhi: WWF-India. 2. 2000. P. 341–425.
4. Information on Biodiversity. National Biodiversity Authority. URL: <http://nbaindia.org/content/500/55/biodiversityrelatedi.html> (дата обращения: 15.09.2024).
5. Current Status of biodiversity in India. URL: <https://ebooks.inflibnet.ac.in/esp12/chapter/current-status-of-environment-in-india-biodiversity-and-climate-change-iii/> (дата обращения: 15.09.2024).
6. Biological Diversity Act, 2002. URL: https://www.indiacode.nic.in/handle/123456789/2046?view_type=browse (дата обращения: 15.09.2024).
7. Initiatives for biodiversity Conservation in India. URL: <https://www.studyiq.com/articles/initiatives-for-biodiversity-conservation-indian/> (дата обращения: 15.09.2024).
8. Revised Indian Biodiversity laws Aims to Boost Bio resource Dependent Sectors. 2023. URL: <https://ficpi.org/blog/revised-indian-biodiversity-law-2023> (дата обращения: 15.09.2024).

9. Environment Protection Act, 1986, India code. URL: https://www.indiacode.nic.in/bitstream/123456789/6196/1/the_environment_protection_act%2C1986.pdf (дата обращения: 15.09.2024).
10. Air Prevention and Control of Pollution Act, 1981. URL: <https://byjus.com/free-ias-prep/air-prevention-and-control-of-pollution-act-1981/> (дата обращения: 15.09.2024).
11. Forest Conservation Act, 1980, India code. URL: https://www.indiacode.nic.in/bitstream/123456789/19381/1/the_forest_%28conservation%29_act%2C_1980.pdf (дата обращения: 15.09.2024).
12. The Forest Conservation Act, 1980. URL: [http://nbaindia.org/uploaded/Biodiversityindia/Legal/22.%20Forest%20\(Conservation\)%20Act,%201980.pdf](http://nbaindia.org/uploaded/Biodiversityindia/Legal/22.%20Forest%20(Conservation)%20Act,%201980.pdf) (дата обращения: 15.09.2024).
13. Summary of the Water Act, 1974. URL: <https://www.legalserviceindia.com/legal/article-6036-summary-of-the-water-prevention-and-control-of-pollution-act-1974.html> (дата обращения: 15.09.2024).
14. Wild Life Protection Act, 1972. URL: <https://byjus.com/free-ias-prep/wildlife-protection-act-1972/> (дата обращения: 15.09.2024).
15. Prevention of Cruelty to Animals Act, 1960. URL: <https://www.nextias.com/ca/current-affairs/24-11-2022/prevention-of-cruelty-to-animal-act> (дата обращения: 15.09.2024).
16. Indian Forest Act, 1927. URL: https://www.indiacode.nic.in/handle/123456789/2388?sam_handle=123456789/1362 (дата обращения: 15.09.2024).

Информация о статье:

Поступила в редакцию: 17.10.2024

Принята к публикации: 20.11.2024

The information about article:

Article was received by the editorial office: 17.10.2024

Accepted for publication: 20.11.2024

Информация об авторах:

Agarwal Mala, professor in botany of the B.B.D. College (Chimanpura (Shahpura), Jaipur, Rajasthan, India), e-mail: agarwal.mala@yahoo.co.in

Гавриленко Владимир Александрович, доцент кафедры теории и истории государства и права Санкт-Петербургского университета ГПС МЧС России (196105, Санкт-Петербург, Московский пр., д. 149), кандидат юридических наук, доцент, e-mail: gv22@mail.ru, SPIN-код: 5093-5970

Information about the author:

Agarwal Mala, professor in botany of the B.B.D. College (Chimanpura (Shahpura), Jaipur, Rajasthan, India), e-mail: agarwal.mala@yahoo.co.in

Gavrilenko Vladimir A., associate professor of the department of theory and history of state and law of the Saint-Petersburg university of State fire service of EMERCOM of Russia (196105, Saint-Petersburg, Moskovsky ave., 149), candidate of law sciences, associate professor, e-mail: gv22@mail.ru, SPIN: 5093-5970