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Topic : Environmental Laws, Policies & Treaties in India and Global scenario

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ENVIRONMENTAL LAWS, POLICIES AND TREATIES IN INDIA AND GLOBAL SCENARIO

ENVIRONMENTAL LAWS, POLICIES AND TREATIES IN INDIA AND GLOBAL SCENARIO:

Environmental laws:

“Environmental Law” as an instrument to protect and improve the environment and control or prevent any act or omission polluting or likely to pollute the environment. It is clearly stated that it is the duty of the State to “protect and improve the environment and to safeguard the forests and wildlife of the country”. It imposes a duty on every citizen “to protect and improve the natural environment including forests, lakes, rivers, and wildlife”. Reference to the environment has also been made in the Directive Principles of State Policy (Part IV) as well as the Fundamental Rights (Part III). The Department of Environment was established in India in 1980 to ensure a healthy environment for the country. This later became the Ministry of Environment and Forests in 1985.

Environmental Laws, Policies, And Treaties in India:

1.Ministry of Environment, Forest and Climate Change (MoEF&CC):

The Ministry of Environment, Forest and Climate Change (MoEF&CC) is the nodal agency in the administrative structure of the Central Government for the planning, promotion, co-ordination and overseeing the implementation of India’s environmental and forestry policies and programmes.

The primary concerns of the Ministry are implementation of policies and programmes relating to conservation of the country’s natural resources including its lakes and rivers, its biodiversity, forests and wildlife, ensuring the welfare of animals, and the prevention and abatement of pollution. While implementing these policies and programmes, the Ministry is guided by the principle of sustainable development and enhancement of human well-being.

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The ministry also serves as the nodal agency in the country for the united nations environment programme, south Asia co-operative environment programme, international centre for integrated mountain development and for the follow-up of the united nations conference on environment and development. The ministry is also entrusted with issues relating to multilateral bodies such as the commission on sustainable development, global environmental facility and of regional bodies like economic and social council for Asia and pacific and south Asian association for regional co-operation on matters pertaining to the environment.

The Broad Objectives Are:

Conservation and survey of flora, fauna, forests and wildlife

1. Prevention and control of pollution
2. Afforestation and regeneration of degraded areas
3. Protection of the environment and
4. Ensuring the welfare of plants and animals

The Constitution of India

1. The 'Right to Life' contained in Article-21 of the Constitution of India includes the right to clean and human environment. It means you have the right to live in a clean and healthy environment
2. Article-38 of our Constitution requires State to ensure a social order for the welfare of people, which can be obtained by an unpolluted and clean environment only.
3. Article-48A of the Constitution declares "The State shall endeavour to protect and improve the environment and safeguard forests and wildlife of the country."
4. Article-51A(g) of the Indian Constitution says: "It shall be the 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."

2.The Water (Prevention and Control of Pollution) Act, 1974

The Water (Prevention and Control of Pollution) Act was enacted in 1974 to provide for the prevention and control of water pollution, and for maintaining or restoring of wholesomeness of water in the country. This is the first law passed in India whose objective was to ensure that the domestic and industrial pollutants are not discharged into rivers, and lakes without adequate treatment. The reason is that such a discharge renders the water unsuitable as a source of drinking water as well as for the purposes of irrigation and support marine life. In order to achieve its objectives, the Pollution Control Boards at Central and State levels were created to establish and enforce standards for factories discharging pollutants into water bodies. The 1988 amendment act empowered SPCB and CPCB to close a defaulting industrial plant.

3.The Water Prevention and Control of Pollution Cess Act 1977:

The Water Cess Act was passed to generate financial resources to meet expenses of the Central and State Pollution Boards. The Act creates economic incentives for pollution control and requires local authorities and certain designated industries to pay a cess (tax) for water effluent discharge. The Central Government, after deducting the expenses of collection, pays the central board and the state's such sums, as it seems necessary. To encourage capital investment in pollution control, the Act gives a polluter a 70% rebate of the applicable cess upon installing effluent treatment equipment. This Act binds consumers who are carrying on an industry that falls within the provisions to affix meters for the purpose of assessing the quantity of water used in the act. Industries also have to include operations or processes or treatment and disposal systems which consume water or give rise to sewage effluent.

4.Forest conservation Act 1980:

1. First forest conservation Act 1927. Alarmed at India's rapid deforestation and resulting environmental degradation, central government enacted the Forest conservation act 1980.

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2. It is an Act of the Parliament of India that was enacted for providing a higher level of protection to forests and to regulate diversion of forest lands for Non forestry purposes.
 3. As per the Forest (Conservation) Act, 1980 Prior permission/approval of the Central Government is essential for De-reservation/ Diversion of forest land for non-forestry purposes. An advisory committee constituted under the act advises the centre on these approvals.
 4. The act deals with the four categories of the forests namely reserved forests, village forests, protected forests and private forests.
 5. This is given on the condition that user agency will deposit required amount to undertake compensatory afforestation for mitigate negative impact of forest land diversion. The act extends to whole of India except state of Jammu and Kashmir (J&K).

5.The Public Liability Insurance Act, 1981

1. This Act aims to provide immediate relief to the persons affected by accident occurring while handling any hazardous substance.
2. It provides that every owner shall take out, before he starts handling any hazardous substance, one or more insurance policies providing for contracts of insurance.
3. The objective of taking insurance is that the compensation resulting from the possible future accident is guaranteed.
4. The collector of the area has been empowered to verify the occurrence of any accident at any place within his jurisdiction and also cause publicity to be given for inviting applications from the victims for any compensation.
5. Apart from the insurance contract, the funding for the purpose of compensation is also generated by the Central Government by the establishment of “Environment Relief Fund.” This fund may be utilized by the collector for paying the compensation.

6.The Air (Prevention and Control of Pollution) Act, 1981

The Air (Prevention and Control of Pollution) Act, 1981 was enacted to provide for the prevention, control and abatement of air pollution in India.

It is a specialized piece of legislation which was enacted to take appropriate steps for the preservation of natural resources of the earth, which among other things include the preservation of the quality of air and control of air pollution.

The prime objectives of the Act are the following:

1. Prevention, control and abatement of air pollution;
2. Establishment of central and state pollution control boards to implement the aforesaid purpose; and
3. To maintain the quality of air

Powers and Functions of the Boards:

1.Central Pollution Board:

The main function of the Central Board is to implement legislation created to improve the quality of air and to prevent and control air pollution in the country. The-Board advises the Central Government on matters concerning the improvement of air quality and also coordinates activities, provides technical assistance and guidance to State Boards and lays down standards for the quality of air. It collects and disseminates information in respect of matters relating to air pollution and performs functions as prescribed in the Act.

2.State Pollution Control Boards:

The State Boards have the power to advise the State Government on any matter concerning the prevention and control of air pollution. They have the right to inspect at all reasonable times any control equipment, industrial plant, or manufacturing process and give orders to take the necessary steps to control pollution. They are expected to inspect air pollution control areas at intervals or whenever necessary. They are empowered to provide standards for emissions to be laid down for different industrial

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plants with regard to quantity and composition of emission of air pollutants into the atmosphere. A State Board may establish or recognize a laboratory to perform this function. The State Governments have been given powers to declare air pollution control areas after consulting with the State Board and also give instructions to ensure standards of emission from automobiles and restriction on use of certain industrial plants.

3.Penalties:

The persons managing industry are to be penalized if they produce emissions of air pollutants in excess of the standards laid down by the State Board. The Board also makes applications to the court for restraining persons causing air pollution.

Whoever contravenes any of the provision of the Act or any order or direction issued is punishable with imprisonment for a term which may extend to three months or with a fine of ₹10,000 or with both, and in case of continuing offence with an additional fine which may extend to ₹5,000 for every day during which such contravention continues after conviction for the first contravention.

7.The Environment Protection Act, 1986

It was the Bhopal Gas Tragedy which necessitated the Government of India to enact a comprehensive environmental legislation, including rules relating to storing, handling and use of hazardous waste.

On the basis of these rules, the Indian Parliament enacted the Environment Protection Act, 1986. This is an umbrella legislation that consolidated the provisions of the Water (Prevention and Control of Pollution) Act of 1974 and the Air (Prevention and Control of Pollution) Act of 1981.

Within this framework of the legislations, the government established Pollution Control Boards (PCBs) in order to prevent, control, and abate environmental pollution.

Environment Protection Act, 1986

The genesis of the Environment (Protection) Act, 1986 is in Article 48-A (Directive Principle of State Policy) and Article 51-A(g) (Fundamental Duty) of the Indian

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Constitution. Soon after the United Nations Conference on the Human Environment held in Stockholm in 1972, the Water (Prevention and Control of Pollution) Act, 1974 was enacted. Then came the Air (Prevention and Control of Pollution) Act 1981 and finally the Environment (Protection) Act, 1986.

The Environment (Protection) Act (EPA) contains 26 sections which are divided into four chapters relating to

1. Preliminary
2. General powers of the Central Government
3. Prevention, abatement, and control of environmental pollution and
4. Miscellaneous provisions

Objectives:

The objective of the Environment Protection Act is to protect and improve the environment in the country. It describes rules to regulate environmental pollution, laying down procedures and standards for industrial waste, emissions, hazardous waste etc. Besides, it deals with the prevention, control and abatement of environmental pollution.

Provisions of the Act

1. The Act consists of and deals with more stringent penal provisions. The minimum punishment for contravention or violation of any provision in the Act is imprisonment for a term which may extend up five years or a fine of up to one lakh rupees or both.
2. The Act also provides for further punishment if the contravention or violation continues after the date of conviction, which is ₹5000 per day. If the violation extends for a period beyond one year, the offender is punished with imprisonment for a term which may extend up to seven years.
3. The Act empowers the Central Government to take all appropriate measures to prevent and control pollution and to establish effective machinery for the purpose

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of protecting and improving the quality of the environment and preventing, abating and controlling environmental pollution.

4. The Central Government or any authorized person is empowered to collect samples of air, water, soil or any other substance as evidence for the offences under the Act. It prescribes the procedure for handling hazardous substances, and the concerned person has to handle such substances in accordance with the procedure established by the Act.
5. The Act has relaxed the provision of "Locus Standi" which has enabled even a common citizen to approach the Court provided he/she has given a notice of sixty days of the alleged offense and his/her intention to make a complaint to the Central Government or any other competent authority.
6. In case the offense under the Act has been committed by a government department, the head of the department is held responsible unless he/she provides evidence that the offense was committed without his/her knowledge or that he/she has exercised due diligence to prevent the commission of such offense.
7. The Act also empowers and authorizes the Central Government to issue directions for the operation or process, prohibition, closure, regulation of any industry. The Central Government is also authorized to stop or regulate the supply of electricity, water, or any other utility services directly, without obtaining a Court order for this purpose.
8. The Act grants immunity to officers of the Government for acts done under the provisions of this Act or under the powers vested in them or functions assigned to them under this Act. The Central Government is also empowered to enter and inspect any place through any person or through any agency authorized by the Central Government.
9. The Act debars a civil court from having any jurisdiction to entertain any suit or proceeding in respect of any action, order, or direction issued by the Central Government or any other statutory authority under this Act.
10. The Act contains a supremacy provision. This means that the provisions of this Act and the rules made thereunder, or the orders issued under this Act shall

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exercise supremacy over any provision under any enactment which is inconsistent with those under this Act.

8.National Forest Policy 1988:

The National Forest Policy of 1988 was launched with the principal aim of ensuring environmental stability and maintenance of ecological balance, including atmospheric equilibrium which is essential for the sustenance of all life forms - plant, animal, and human.

The objectives of the National Forest Policy 1988

1. Maintenance and restoration of the ecological balance which has been adversely disturbed by a serious depletion of the forests.
2. Conservation of the natural heritage and protection of remaining flora and fauna, representing the genetic diversity in the country.
3. Checking soil erosion and denudation in the catchment areas of rivers, lakes, reservoirs in the interest of soil and water conservation.
4. Checking the extension of sand-dunes in the desert areas of Rajasthan and along the coastal tracts.
5. Increasing substantially the forest/tree cover in the country through massive afforestation and social forestry programmes, especially on all denuded, degraded and unproductive lands.
6. Meeting the requirements of fuel-wood, fodder, minor forest produce, and small timber of rural and tribal populations.
7. Increasing the productivity of forests to meet the essential national needs.

Strategy to implement the provisions of the policy

1. About one-third of the total geographical area of the country to be brought under forest cover. In hills and mountainous regions, about two-thirds of the total area must be kept under forest cover to prevent soil erosion and land degradation and to preserve the stability of the fragile ecosystems.

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2. To encourage the planting of trees along roads, railway lines, canals and streams, and over the unutilized lands of State entities, lands under institutional or private ownership.
 3. Formation of Green belts in and urban areas, industrial zones etc., to check soil erosion and desertification as well as to improve the micro-climate of the region.
 4. Village and community lands must be encouraged to grow tree crops and fodder resources. The revenue generated from such resources must be shared with the panchayats and local communities.
 5. Land laws should be modified to encourage individuals and institutions to take up tree-fanning and grow fodder plants, legumes, etc., on their lands. Appropriate regulations must be put in place to oversee the felling of trees in private lands

The major achievements of the National Forest Policy, 1988 include

1. Increase in the forest and tree cover.
2. Involvement of local communities in the protection, conservation, and management of the forests through Joint Forest Management Programme.
3. Conservation of biological diversity and genetic resources of the country through in-situ and ex-situ conservation efforts.
4. A significant contribution towards the maintenance of ecological balance and environmental stability in the country.

Joint Forest Management Programme

1. Under JFM programme both the State forest department, as well as the local communities, are involved in the conservation, protection, and management of forest lands under their jurisdiction.
2. The local communities enter into a JFM agreement with the forest department under which they assist the forest department in the protection of forests from the illegal felling of trees, excessive grazing, fires, etc., in return for rights over the minor forest produce and a share of revenue generated from the sale of timber products.

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9.The National Environment Tribunal Act, 1995

This Act is aimed to provide for strict liability for damages arising out of any accident occurring while handling any hazardous substance and for the establishment of a National Environment Tribunal for effective and expedition disposal of cases arising from such accident, with a view to giving relief and compensation for damages to persons, property and the environment and for matters connected with it.

The Act lies in the fact that the liability of the owner of hazardous substance has been made strict in case of any accident and the resultant injury to public.

In any claim for the compensation, the claimant is not required to plead and establish that the death, injury or damage in respect of which the claim has been made was due to any wrongful act, neglect or default of any person. So, the burden of proof does not rest upon the claimant of compensation which is a big relief for the victims.

10.The National Environment Appellate Authority (NEAA) Act, 1997

The National Environment Appellate Authority (NEAA) was set up by the Ministry of Environment and Forests to address cases in which environment clearance is required in certain restricted areas.

It was established by the National Environment Appellate Authority Act 1997 to hear appeals with respect to restriction of areas in which any industries, operations, processes or class of industries, operations or processes shall or shall not be carried out, subject to certain safeguards under the Environment Protection Act, 1986.

11.The Noise Pollution (Regulation and Control) Rules, 2000

There was no direct provision for 'noise pollution' under the Environment Protection Act, 1986 or any other legislation.

The increasing ambient noise levels in public places from various sources like industrial activity, generator sets, loud speakers, vehicular horns etc. have harmful effects on human health.

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It was the need of the hour to come with a law which would regulate and control noise producing sounds with the objective of maintaining the ambient air quality standards in respect of noise.

Therefore, the Central Government framed 'The Noise Pollution (Regulation and Control) Rules, 2000'. These rules have been laid down by the government to reduce environmental noise pollution.

Certain standards, such as the ambient air quality standards, have been set by the government.

The permissible levels of noise are different for different areas, such as industrial, commercial, residential areas and silence zones (area within the vicinity of hospitals, educational institutions or courts).

12.The Ozone Depleting Substances (Regulation and Control) Rules, 2000

The Ozone Depleting Substances (Regulation and Control) Rules 2000 under the environmental protection act 1986 and have been laid down for the regulation of production, trade import and export and consumption of ozone depleting substances.

The main objective of this rule is protection of the Ozone layer. The rule restricts unauthorized sale, purchase, import, export and use of ozone depleting substance.

The rules prohibit the use of Cfc's in manufacturing various products beyond 1st Jan 2013 except meter dose inhaler and for other medical purposes.

Similarly use of halons is prohibited after 1st Jan 2001 except for essential use. Other ODS such as carbon tetrachloride and methyl chloroform and Cfc for metered dose inhalers can be use up-to 1st Jan 2010.

Further the use of methyl bromide has been allowed up to 1st Jan 2015. Since Hcfc's are used as interim substitute to replace CFC these are allowed as interim substitute to replace cfc these are allowed up to Jan 1 2040.

13.The National Green Tribunal :2010

The National Green Tribunal has been established on 18th Oct,2010 under the National Green Tribunal Act 2010 for effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto. It is a specialized body equipped with the necessary expertise to handle environmental disputes involving multi-disciplinary issues.

The Tribunal's dedicated jurisdiction in environmental matters shall provide speedy environmental justice and help reduce the burden of litigation in the higher courts. The Tribunal is mandated to make and endeavor for disposal of applications or appeals finally within 6 months of filing of the same.

Initially, the NGT is proposed to be set up at five places of sittings and will follow circuit procedure for making itself more accessible. New Delhi is the Principal Place of Sitting of the Tribunal and Bhopal, Pune, Kolkata and Chennai shall be the other four places of sitting of the Tribunal.

Composition of National Green Tribunal (NGT)

NGT comprises of both judicial and expert members as adjudicators. The Chairman of NGT is a judicial member and must be or has been a judge of the Supreme Court of India or Chief Justice of a High Court. The Chairman is appointed by the Central Government in consultation with the Chief Justice of India. Other judicial members of the NGT must be or has been a judge of the High Court. For an expert member a person must have a doctorate degree in life sciences or physical sciences with fifteen years experience in the relevant field including five years practical experience in the field of environment and forest in a reputed national level institution or an administrative experience of fifteen years including experience of five years in dealing with environmental matters in the Central or State Governments or in a reputed National or State level institution. The Judicial and expert members are appointed by the Central Government on the recommendation of a Selection Committee.

●.....● **Jurisdiction and Powers of NGT**

Jurisdiction means authority of any Court or Tribunal to accept a matter for hearing and decision. NGT has the jurisdiction over all civil cases where a substantial question relating to environment (including enforcement of any legal right relating to environment), is involved and such question arises out of the implementation of the enactments specified in Schedule I of the National Green Tribunal Act, 2010.

Schedule I of the Act lists following legislations:

1. The Water (Prevention and Control of Pollution) Act, 1974.
2. The Water (Prevention and Control of Pollution) Cess Act, 1977.
3. The Forest (Conservation) Act, 1980.
4. The Air (Prevention and Control of Pollution) Act, 1981.
5. The Environment (Protection) Act, 1986.
6. The Public Liability Insurance Act, 1981.
7. The Biological Diversity Act, 2002.

NGT is empowered to provide by an order:

Relief and compensation to the victims of pollution and other environmental damage arising under the enactments specified in Schedule I (including accident occurring while handling any hazardous substance) of the Act.

The Act mandates that in case of accident, the Tribunal shall, apply the principle of 'no fault'. 'No fault principle' stipulates that in case of accident the owner or the employer cannot take the defense of him/her having committed no fault. If accident occurs and as a consequence of it damage is caused to any person or environment, the owner or the employer is liable, only because of the fact that accident occurred in his/her enterprise. Apart from this principle, NGT has to also apply the principles of 'Sustainable Development', 'precautionary principle' and 'polluter pays principle', while giving an order or decision or award.

Procedure NGT is not bound to follow the procedures laid down in the Code of Civil Procedure, 1908; or the Indian Evidence Act, 1872; rather it has to be guided by the principles of natural justice. It has for the purposes of discharge of its functions all the

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powers of the Civil Court for trying a suit as given under the Code of Civil Procedure, 1908. Any decision, order or 'award' of the Tribunal is executable by the Tribunal as a 'decree' of the Civil Court and, therefore, for this purpose the 'Tribunal' will have all the powers of a Civil Court. The Tribunal can also if it deems fit transmit its order or award for execution to a Civil Court having local jurisdiction as if it were the 'decree' of that Civil Court.

Minimum number of members who must together hear and decide a case is two, out of which one must be a judicial member and other an expert member. The decision of Tribunal by majority is binding. In case the opinion of the bench is equally divided then the matter is to be heard and decided by the Chairman of NGT if he/she was not part of the equally divided bench. In cases, where the Chairman himself/herself is part of the equally divided bench then he/she shall refer the matter to other member of the Tribunal not part of that equally divided bench to hear the case and decide.

Penalty

Whoever fails to comply with any order, decision or award of the NGT under the National Green Tribunal Act, 2010, commits a cognizable offence and shall be punishable with an imprisonment for a term which may extend to three years or with fine which may extend to 10 Crore rupees (25 Crore in case of a company) or with both and in case the failure or contravention continues, with additional fine which may extend to 25,000 Crore (1 Lakh Crore in case of a company) for every day during which such failure or contravention continues after conviction for first such failure or contravention.

Appeal

In an appeal the person who has lost the case can again challenge the decision made by the NGT before the Supreme Court. Any person aggrieved by any decision, order or award of the Tribunal, may file an appeal before the Supreme Court within 90 days from the date of communication of such decision, order or award. Though, the Supreme Court may allow a person to file such appeal even after 90 days if the Court is satisfied that the person appealing was prevented to do so for sufficient cause.

●.....● **14.National Biodiversity Authority 2003:**

The National Biodiversity Authority (NBA) was established by the Central Government in 2003 to implement India's Biological Diversity Act (2002).

The NBA is a Statutory Body and it performs facilitative, regulatory and advisory functions for the Government of India on issues of conservation, sustainable use of biological resources and fair and equitable sharing of benefits arising out of the use of biological resources.

Objectives:

The Biological Diversity Act (2002) mandates implementation of the provisions of the Act through decentralized system with the NBA focusing on

1. Advising the Central Government on matters relating to the conservation of biodiversity, sustainable use of its components and equitable sharing of benefits arising out of the utilization of biological resources;
2. Advising the State Governments in the selection of areas of biodiversity importance to be notified under Sub-Section 1 of Section 37 as heritage sites and measures for the management of such heritage sites. The NBA considers requests by granting approval or otherwise for undertaking any activity referred to in Sections 3,4 and 6 of the Act.

The State Biodiversity Boards (SBBs)

The state biodiversity boards focus on advising the State Governments, subject to any guidelines issued by the Central Government, on matters relating to the conservation of biodiversity, sustainable use of its components and equitable sharing of the benefits arising out of the utilization of biological resources;

The SSBs also regulate, 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)**

The local level biodiversity management committee are responsible for promoting conservation, sustainable use and documentation of biological diversity including preservation of habitats, conservation of land races, folk varieties and cultivars, domesticated stocks and breeds of animals and microorganisms and chronicling of knowledge relating to biological diversity.

The NBA with its headquarters in Chennai, Tamil Nadu, India delivers its mandate through a structure that comprises of the Authority, Secretariat, SBBs, BMCs and Expert Committees. Since its establishment, NBA has supported creation of SBBs in 29 States and facilitated establishment of around 1,55,868 BMCs.

15. Wildlife institute of India:

Established in 1982, Wildlife Institute of India (WII) at Dehradun and it is an internationally acclaimed Institution, which offers training program, academic courses and advisory in wildlife research and management. The Institute is actively engaged in research across the breadth of the country on biodiversity related issues. WII is an autonomous institution under the Union Ministry of Environment Forest and Climate Change. It is based in Chandra Bani, Dehradun.

Functions:

It conducts specialized research in areas of study like Endangered Species, Biodiversity, Wildlife Management, Wildlife Policy, Wildlife Forensics, Habitat Ecology, Spatial Modelling, Ecodevelopment, and Climate Change.

16. Wild Life Crime Control Bureau:

Wildlife Crime Control Bureau is a statutory multi-disciplinary body Under Section 38 (Z) of the Wild Life (Protection) Act, 1972, established by the Government of India under the Ministry of Environment and Forests, to combat organized wildlife crime in the country.

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The Bureau has its headquarter in New Delhi and five regional offices at Delhi, Kolkata, Mumbai, Chennai and Jabalpur; three sub-regional offices at Guwahati, Amritsar and Cochin; and five border units at Ramanathapuram, Gorakhpur, Motihari, Nathula and Moreh.

Functions:

1. It is mandated to collect and collate intelligence related to organized wildlife crime activities and to disseminate the same to State and other enforcement agencies for immediate action so as to apprehend the criminals; to establish a centralized wildlife crime data bank.
2. Co-ordinate actions by various agencies in connection with the enforcement of the provisions of the Act.
3. Assist foreign authorities and international organization concerned to facilitate co-ordination and universal action for wildlife crime control.
4. Capacity building of the wildlife crime enforcement agencies for scientific and professional investigation into wildlife crimes and assist State Governments to ensure success in prosecutions related to wildlife crimes.
5. Advise the Government of India on issues relating to wildlife crimes having national and international ramifications, relevant policy and laws.
6. It also assists and advises the Customs authorities in inspection of the consignments of flora & fauna as per the provisions of Wild Life Protection Act, CITES and EXIM Policy governing such an item.

17. Animal Welfare Board of India:

The Animal Welfare Board of India is a statutory advisory body on Animal Welfare Laws and promotes animal welfare in the country. Established in 1962 under the Prevention of Cruelty to Animals Act, 1960, the Animal Welfare Board of India was started under the stewardship of Late Smt. Rukmini Devi Arundale, well known humanitarian. From ensuring that animal welfare laws in the country are diligently followed, to provide grants to Animal Welfare Organizations and advising the Government of India on animal welfare issues, the Board has been the face of the animal welfare movement in the country for the last 50 years. The Board consists of 28 Members. The term of office

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of Members is for a period of 3 years. Headquarters of this was located in ballabgarh, Haryana.

Mandate

To prevent the infliction of unnecessary pain or suffering on animals, in terms of the provision of the Prevention of Cruelty to Animals (PCA) Act, 1960.

Functions

1. To keep the law in force in India for the Prevention of Cruelty to Animals under constant study and to advise the government on the amendments to be undertaken in any such law from time to time.
2. To advise the Central Government on the making of rules under the Act with a view to preventing unnecessary pain or suffering to animals generally, and more particularly when they are being transported from one place to another or when they are used as performing animals or when they are kept in captivity or confinement.
3. To advise the Government or any local authority or other person on improvements in the design of vehicles so as to lessen the burden on draught animals.
4. To take all such steps as the Board may think fit for *(amelioration of animals) by encouraging or providing for, the construction of sheds, water troughs and the like and by providing for veterinary assistance to animals.
5. To advise the Government or any local authority or other person in the design of slaughter houses or the maintenance of slaughter houses or in connection with slaughter of animals so that unnecessary pain or suffering, whether physical or mental, is eliminated in the preslaughter stages as far as possible, and animals are killed; wherever necessary, in as humane a manner as possible.
6. To take all such steps as the Board may think fit to ensure that unwanted animals are destroyed by local authorities, whenever it is necessary to do so, either instantaneously or after being rendered insensible to pain or suffering.
7. To encourage by the grant of financial assistance or otherwise, (the formation or establishment of Pinjarapoles, rescue homes, animals shelters, sanctuaries and the like), where animals and birds may find a shelter when they have become old and useless or when they need protection.

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8. To co-operate with, and co-ordinate the work of, associations or bodies established for the purpose of preventing unnecessary pain or suffering to animals or for the protection of animals and birds.

18.The Wildlife (Protection) Act, 1972 (Last amended in 2006)

The Wildlife (Protection) Act (WLPA), 1972 is an important statute that provides a powerful legal framework for:

1. Prohibition of hunting
2. Protection and management of wildlife habitats
3. Establishment of protected areas
4. Regulation and control of trade in parts and products derived from wildlife
5. Management of zoos.

The act provides for the protection of wild animals, birds and plants and matters connected with them, with a view to ensure the ecological and environmental security of India.

Extends to the whole of India, except the State of Jammu and Kashmir which has its own wildlife act.

It provides for prohibition on use of animal traps except under certain circumstances. It provides for protection of hunting rights of the Scheduled Tribes in Andaman and Nicobar Islands.

Has provisions for the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

It has six schedules which give varying degrees of protection the poaching, smuggling and illegal trade of animals listed the schedule 1 to schedule 4 are prohibited.

1. Species listed in Schedule I and part II of Schedule II get absolute protection — offences under these are prescribed the highest penalties. For Example: lion tailed macaque, great Indian bustard, Narcondam hornbill.

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2. Species listed in Schedule III and Schedule IV are also protected, but the penalties are much lower compared to schedule 1 and part of schedule 2. Nilgai, Mongoose, vultures.
 3. Schedule V includes the animals are called vermin so which may be hunted. For Example: Mice, rat, common crow and flying fox are the list of animals.
 4. The plants in Schedule VI are prohibited from cultivation and planting for example red vanda, blue vanda, kuth, pitcher plant, beddomes cycad and ladies sliper orchid.

The WLPA provides for several categories of Protected Areas/Reserves:

Sanctuaries: The State or Central Government may by notification declare its intention to constitute any area as a sanctuary for protecting wildlife and the environment. The government determines the nature and extent of rights of persons in or over the land within the sanctuary.

National Parks:

The State or Central Government may declare an area, whether inside a sanctuary or not, as a national park for the purpose of protecting and developing wildlife and its environment. The State Government cannot alter the boundaries of a national park except on the recommendation of the National Board for Wildlife. No grazing is allowed inside a national park. All provisions applicable to a sanctuary are also applicable to a national park.

Conservation Reserves: The State Government after consultations with local communities can declare any area owned by the Government, particularly areas adjacent to national parks or sanctuaries, as conservation reserves. The government constitutes a Conservation Reserve Management Committee to manage and conserve the conservation reserve.

Community Reserves: The State Government can, in consultation with the community or an individual who have volunteered to conserve wildlife, declare any private or community land as community reserve. A Community Reserve Management

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Committee shall be constituted by State Government for conserving and managing the reserve.

Tiger Reserve: These areas were reserved for protection tiger in the country. The State Government on the recommendation of the Tiger Conservation Authority may notify an area as a tiger reserve, for which it has to prepare a Tiger Conservation Plan.

The Wildlife Crime Control Bureau (WCCB), National board on wildlife and National tiger conservation authority was constituted under this act.

The acts set up various provisions related to trade and penalties for hunting the animals in wild.

Global Environmental Laws and Policies and Treaties

1.UN Conference on Human Environment, Stockholm, Sweden

The United Nations Conference on the Human Environment (also known as the Stockholm Conference) was an international conference convened under United Nations auspices held in Stockholm, Sweden from June 5-16, 1972.

It was the UN's first major conference on international environmental issues, and marked a turning point in the development of international environmental politics.

The United Nations Environment Programme has been established by the United Nations General Assembly in pursuance of the Stockholm Conference.

Nairobi declaration:

1. Declaration adopted in 1982 (10th anniversary of Stockholm)
2. The Declaration envisaged the creation of a special commission to frame long term environment strategies for achieving sustainable developments upto the year 2000 and beyond.
3. The Declaration was endorsed by the governing Council of United Nations Environment Programme (UNEP) in 1987

2. UN environment programme (UNEP), Stockholm, Sweden

1. Established in 1972 — result of the United Nations Conference on the Human Environment (Stockholm Conference) Headquarter — Nairobi, Kenya.
2. Its Activities cover a wide range of issues regarding the atmosphere, marine and terrestrial ecosystems, environmental governance and green economy.
3. Agency of United Nations that coordinates its environmental activities, assisting developing countries in implementing environmentally sound policies and practices
4. Publishes Global environment outlook
5. seven thematic areas of work:
 1. Climate Change
 2. Disasters and Conflicts
 3. Ecosystem Management
 4. Environmental Governance
 5. Chemicals and Waste
 6. Resource Efficiency
 7. Environment Under Review

UNEP is also one of several Implementing Agencies for the Global Environment Facility (GEF) and the Multilateral Fund for the Implementation of the Montreal Protocol. UNEP has also been active in funding and implementing environment related development projects. UNEP has aided in the formulation of guidelines and treaties on issues such as the international trade in potentially harmful chemicals, transboundary air pollution, and contamination of international waterways

3. Ramsar Convention

The Convention on Wetlands, called the Ramsar Convention is also known as waterfowl convention the intergovernmental treaty that provides the framework for the conservation and wise use of wetlands and their resources. The Convention was adopted in the Iranian city of Ramsar in 1971 and came into force in 1975. Since then, almost 90% of UN member states, from all the world's geographic regions, have acceded to

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become “Contracting Parties”. India has 27 Ramsar Sites which are the Wetlands of International importance.

Wetlands:

The Convention uses a broad definition of wetlands. It includes all lakes and rivers, underground aquifers, swamps and marshes, wet grasslands, peatland, oases, estuaries, deltas and tidal flats, mangroves and other coastal areas, coral reefs, and all human-made sites such as fish ponds, rice paddies, reservoirs and salt pans.

World wetlands day, 2nd February every year.

Mission:

the conservation and wise use of all wetlands through local, regional, and national action and international cooperation as a contribution towards achieving sustainable development throughout the world.

Three pillars:

1. Work towards wise use of all their wetlands through national land use planning, appropriate policies and legislation and management actions and public education.
2. Designate suitable wetlands for the list of wetlands of international importance and ensure their effective management
3. Cooperate internationally concerning transboundary wetlands, shared wetlands systems, shared species, and development project that may affect wetlands.

Transboundary Ramsar sites:

Contracting Parties are designating their new and existing Ramsar Sites as Transboundary Ramsar Sites. These are ecologically coherent, shared wetlands extending across national borders, which are managed collaboratively.

Montreux Record

Montreux Record under the Ramsar Convention is a register of wetland sites on the List of Wetlands of International Importance where changes in ecological character have occurred, are occurring, or are likely to occur as a result of technological developments, pollution or other human interference. It is maintained as part of the Ramsar List.

Currently, two wetlands of India are in Montreux record : Keoladeo National Park (Rajasthan) and Loktak Lake (Manipur).

Note: Chilika lake (Odisha) was placed in the record but was later removed from it.

International organizational partners:

The Ramsar Convention works closely with six organisations known as International Organization Partners (IOPs). These are:

1. Birdlife International
2. International Union for Conservation of Nature (IUCN)
3. International Water Management Institute (IWMI)
4. Wetlands International
5. WWF
6. International Wildfowl & Wetlands Trust (WWT)

Ramsar sites in India: Sl. No.	Name of Site	State Location	Date of Declaration	Area (in Sq. km.)
1	Asthmudi Wetland	Kerala	19.8.2002	614
2	Bhitarkanika Mangroves	Orissa	19.8.2002	650
3	Bhoj Wetlands	Madhya Pradesh	19.8.2002	32.01
4	Chandertal Wetland	Himachal Pradesh	8.11.2005	0.49
5	Chilka Lake	Orissa	1.10.1981	1165
6	DeeporBeel	Assam	19.8.2002	40
7	East Calcutta Wetlands	West Bengal	19.8.2002	125

8	Harike Lake	Punjab	23.3.1990	41
9	Hokera Wetland	Jammu and Kashmir	8.11.2005	13.75
10	Kanjli Lake	Punjab	22.1.2002	1.83
11	Keoladeo Ghana NP	Rajasthan	1.10.1981	28.73
12	Kolleru Lake	Andhra Pradesh	19.8.2002	901
13	Loktak Lake	Manipur	23.3.1990	266
14	Nalsarovar Bird Sanctuary	Gujarat	24/09/12	120
15	Point Calimere	Tamil Nadu	19.8.2002	385
16	Pong Dam Lake	Himachal Pradesh	19.8.2002	156.62
17	Renuka Wetland	Himachal Pradesh	8.11.2005	0.2
18	Ropar Lake	Punjab	22.1.2002	13.65
19	Rudrasagar Lake	Tripura	8.11.2005	2.4
20	Sambhar Lake	Rajasthan	23.3.1990	240
21	Sasthamkotta Lake	Kerala	19.8.2002	3.73
22	Sunderbans Wetland	West Bengal	30.1.2019	4230
23	Surinsar-Mansar Lakes	Jammu and Kashmir	8.11.2005	3.5
24	Tsomoriri Lake	Jammu and Kashmir	19.8.2002	120

25	Upper Ganga River (Brijghat to Narora Stretch)	Uttar Pradesh	8.11.2005	265.9
26	VembanadKol Wetland	Kerala	19.8.2002	1512.5
27	Wular Lake	Jammu & Kashmir	23.3.1990	189
		Total Area (in Sq. km.)		11121.31

4. Convention on the conservation of migratory species of wild animals:(1979)

1. It is an intergovernmental environmental treaty under the aegis of the United Nations Environment Programme, CMS (also referred to as the Bonn Convention)
2. It provides a global platform for the conservation and sustainable use of migratory animals like terrestrial aquatic and avian and their habitats.
3. CMS brings together the States through which migratory animals pass, the Range States, and lays the legal foundation for internationally coordinated conservation measures throughout a migratory range.
4. It is the only global convention specializing in the conservation of migratory species, their habitats and migration routes.
5. **Appendix I-** Migratory species threatened with extinction are listed on appendix I of the convention. CMS parties strive towards strictly protecting these animals, conserving or restoring the places where they live, mitigating obstacles to migration and controlling other factors that might endanger them.

Appendix II- Migratory species that need or would significantly benefit from international cooperation are listed in appendix II of the convention.

6. India has been a Party to the CMS since 1983. The Conference of Parties (COP) is the decision-making organ of this convention.

●.....● **5.Global Tiger Forum: 1994**

The Global Tiger Forum (GTF) is the only inter- governmental international body established with members from willing countries to embark on a global campaign to protect the Tiger.

Utilizing co-operative policies, common approaches, technical expertise, scientific modules and other appropriate programmes and controls the GTF is focused on saving the remaining 5 sub-species of Tigers distributed over 13 Tiger Range countries of the world.

Functioning

The GTF has a General Assembly meeting every 3 years and Standing committee meetings at least once a year.

A Chairperson, usually a Minister from one of the Tiger Range countries heads GTF for a fixed tenure of 3 Years. The Secretariat of GTF is headed by a Secretary General and is located in New Delhi, India.

Goal:

To highlight the rationale for tiger preservation and provide leadership and common approach throughout the world in order to safeguard the survival of the tiger, its prey and its habitat.

Objectives:

1. To promote a worldwide campaign to save the tiger its prey and its habitat.
2. To promote a legal framework in the countries involved for biodiversity conservation
3. To increase the protected area network of habitats of the tiger and facilitate their inter passages in the range countries.
4. To urge countries to enter into relevant conventions for conservation of tiger and elimination of illegal tiger.

6. Intergovernmental Panel on Climate Change

This is a scientific intergovernmental body under the UN. Formed in 1988 by WMO and UNEP. The secretariat of the IPCC is located in Geneva Switzerland. It is open to all member countries of the United Nations and WMO.

It produces report based on scientific developments across the world. The IPCC does not carry out its own original research, nor does it do the work of monitoring climate or related phenomena itself. Thousands of scientists from all over the world contribute to the work of the IPCC on a voluntary basis.

The IPCC bases its assessment on the published literature. IPCC has so far produced five assessment reports, the latest one was published in 2014.

It said that India's high vulnerability and exposure to climate change will slow its economic growth, impact health and development, make poverty reduction more difficult and erode food security. It was awarded the Nobel peace prize in 2007. IPCC functions under UNFCCC.

The aims of the IPCC are to assess scientific information relevant to :

1. Human-induced climate change,
2. The impacts of human-induced climate change,
3. Options for adaptation and mitigation

7. United Nations Conference on Environment and Development:

Earth Summit 1992 is also known as The United Nations Conference on Environment and Development (UNCED), Rio summit, Rio conference. Earth Summit 1992 succeeded in raising public awareness of the need to integrate environment and development. 190 countries pledged their commitment to achieve by 2010, a significant reduction in the current rate of biodiversity loss at global, regional and local levels.

The issues touched included:

1. Checking production of toxic components, such as lead in gasoline, or poisonous waste including radioactive chemicals,

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2. Alternative sources of energy to replace the use of fossil fuels,
 3. New reliance on public transportation systems in order to reduce vehicle emissions, congestion in cities,
 4. The health problems caused by polluted air and smoke, and
 5. The growing usage and limited supply of water.

Landmark Agreements

Important legally binding agreements (Rio Convention) were opened for signature:

1. Convention on Biological Diversity.
2. United Nations Convention to Combat Desertification.
3. United nations framework on climate change.

The Earth Summit resulted in the following documents:

1. Rio Declaration: principles intended to guide countries in future sustainable development.

2. Agenda 21:

Agenda 21 is a non-binding action plan of the United Nations (UN) related to sustainable development. It was an outcome of the Earth Summit 1992. The number 21 refers to an agenda for the 21st century. Its aim is achieving global sustainable development. Since 2015, Sustainable Development Goals are included in the Agenda 2030.

3. Forest Principles: Non-legally binding document on Conservation and Sustainable Development of All Types of Forests.

Rio+5

In 1997, the UN General Assembly held a special session to appraise the status of Agenda 21 (Rio +5). The Assembly recognized progress as “uneven” and identified key trends, including increasing globalization, widening inequalities in income, and continued deterioration of the global environment.

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The Johannesburg summit:

Rio+10 (2002) or Earth Summit 2002 or World Summit on Sustainable Development. Took place in Johannesburg, South Africa in 2002. Rio+10 affirmed UN commitment to Agenda 21, alongside the Millennium Development Goals. Johannesburg Declaration: committing the nations of the world to sustainable development.

Rio+20

Twenty years after the landmark 1992 earth summit in Rio. At the Rio+20 conference world leaders along with thousands of participants from the private sector, NGO's and other groups, came together to shape how we can reduce poverty, advance social equity and ensure environmental protection on ever more crowded planet.

The official discussions focused on two main reasons:

- 1.How to build a green economy to achieve sustainable development and lift of people out of poverty.
- 2.How to improve international coordination for sustainable development.

United Nations Framework Convention on Climate Change:

It is international environmental treaty negotiated at Earth Summit in Rio de Janeiro in 1992 and entered into force in 1994. It has near universal membership as it has 196 countries and European Union (EU) as its members. It is parent treaty of the 1997 Kyoto Protocol which was ratified by 192 of the UNFCCC Parties. The ultimate objective of both treaties is to stabilize greenhouse gas (GHGs) concentrations in atmosphere at a level that will prevent dangerous human interference with the climate system.

Conference of Parties (COP)

COP is the supreme decision-making body of United Nations Framework Convention on Climate Change (UNFCCC). All States that are Parties to UNFCCC are represented at COP. At COP, all parties review implementation of Convention and take decisions necessary to promote the effective implementation of Convention.

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Kyoto Protocol:

1. The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change, which commits its Parties by setting internationally binding emission reduction targets.
2. Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."
3. The Kyoto Protocol was adopted in Kyoto, Japan, on 11 December 1997 and entered into force on 16 February 2005. The detailed rules for the implementation of the Protocol were adopted at COP 7 in Marrakesh, Morocco, in 2001, and are referred to as the "Marrakesh Accords." Its first commitment period started in 2008 and ended in 2012.
4. In Doha, Qatar, on 8 December 2012, the "Doha Amendment to the Kyoto Protocol" was adopted:
5. New commitments for Annex I Parties to the Kyoto Protocol who agreed to take on commitments in a second commitment period from 1 January 2013 to 31 December 2020;
6. A revised list of greenhouse gases (GHG) to be reported on by Parties in the second commitment period; and
7. Amendments to several articles of the Kyoto Protocol which specifically referenced issues pertaining to the first commitment period and which needed to be updated for the second commitment period.

Paris agreement:

Parties to UNFCCC agreed to strive to limit the rise in global warming to well under 2 degrees Celsius, over pre-industrial levels by 2100, under Paris Agreement 2015.

1. Nationally determined contributions (NDCs) were conceived at Paris summit which require each Party to prepare, communicate and maintain successive nationally determined contributions (NDCs) that it intends to achieve.

- 2. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.
- 3. Paris Agreement replaced earlier agreement to deal with climate change, Kyoto Protocol.
- 4. USA recently pulled out from the agreement seriously damaging the global effort to reverse climate change, as USA is one of the largest Greenhouse Gas emitter.

8. Hazardous Material:

1. Stockholm Convention:

Aim — to eliminate or restrict the production and use of persistent organic pollutants United Nations treaty Signed — 2001 and Effective — 2004. The POPs are classified into Annexure A, Annexure B, Annexure C

Persistent organic pollutants (POPs)

1. POPs are chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty tissue of living organisms and are toxic to humans and wildlife
2. POP can lead to serious health effects including certain cancers, birth defects, dysfunctional immune and reproductive systems, greater susceptibility to disease and damages to the central and peripheral nervous systems.
3. Given their long-range transport, no one government acting alone can protect its citizens or its environment from POPs Global Environmental Facility (GEF) is the designated interim financial mechanism for the Stockholm Convention.
4. It distributed throughout the environment as a result of natural process involving soil, water, and most notably air.
5. Accumulates in the fatty tissue of living organism including humans, and or found at higher concentrations at higher levels in the food chain and toxic to both humans and wildlife.

The initial 12 POPs

Initially, 12 POPs have been recognized as causing adverse effects on humans and the ecosystem. They were placed in 3 categories as:

- Pesticides: aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene, mirex, toxaphene.
- Industrial chemicals: hexachlorobenzene, polychlorinated biphenyls (PCBs).
- By-products: hexachlorobenzene, polychlorinated dibenzo-p-dioxins, polychlorinated dibenzofurans (PCDD/PCDF), and PCBs.

List of New POPs

Nine new POPs have been added to the list of POPs under Stockholm Convention at the CoP held in 2009. Annexures A, B, and C were amended to include the following chemicals as POPs.

1. Pesticides: chlordecone, Alpha Hexachlorocyclohexane, Beta Hexachlorocyclohexane, lindane, Pentachlorobenzene.
2. Industrial chemicals: Hexabromobiphenyl, Hexabromodiphenyl Ether and Heptabromodiphenyl Ether, Pentachlorobenzene, Perfluorooctane Sulphonic Acid, its salts and Perfluorooctane Sulphonyl Fluoride, Tetrabromodiphenyl Ether and Pentabromodiphenyl ether.
3. By-products: Alpha Hexachlorocyclohexane, Beta hexachlorocyclo hexane, and Pentachlorobenzene.

2. Basel Convention:

It is an international treaty that was designed to reduce the movements of hazardous waste between nations, and specifically to prevent transfer of hazardous waste from developed to less developed countries (LDCs). opened for signature on 22 March 1989 and entered into force on 5 May 1992. Parties – 187.

Objectives:

To protect the human health and environment against adverse effects of hazardous wastes. The hazardous wastes based covers based on their origin and/or composition and their characteristics as well as two types of wastes defined as “other wastes”- household wastes and incinerator waste.

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Principal aim:

The reduction of hazardous waste generation and promotion of environmentally sound management of hazardous wastes, wherever the place of disposal;

The restriction of transboundary movements of hazardous wastes except where it is perceived to be in accordance with the principles of environmentally sound management.

A regulatory system applying to cases where transboundary movements are permissible.

Waste under the Basel convention:

Waste are substances or objects which are disposed of or are intended to be disposed of by the provisions of national law.

Annex:**Annex I:**

Annex I of the convention as further clarified in annexes VIII and IX lists those wastes that are classified as hazardous and subject to the control procedures under the convention.

Annex II:

Annex II of the convention identifies those wastes that require special consideration.

Examples of wastes regulated by the Basel Convention:

1. Biomedical and healthcare wastes.
2. Used oils
3. Persistent organic pollutants wastes
4. Polychlorinated biphenyls
5. Thousands of chemical wastes generated by industries and other consumers.

It does not address the movement of radioactive waste. The Convention is also intended to minimize the amount and toxicity of wastes generated, to ensure their environmentally sound management and to assist LDCs in environmentally sound management of the hazardous and other wastes they generate.

3. Rotterdam convention:

The Rotterdam Convention (formally, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade) is a multilateral treaty to promote shared responsibilities in relation to importation of hazardous chemicals. It was adopted in September 1998 and entered into force on 24 February 2004. It's jointly administered by the United Nations Food and Agriculture Organization (FAO) and UN Environment (UNEP). It creates legally-binding obligations for the implementation of the Prior Informed Consent (PIC) procedure.

Objectives:

To promote shared responsibility and cooperative efforts among parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm.

To contribute to the environmentally sound use of those hazardous chemicals by:-

1. Facilitating information exchange about their characteristics;
2. Providing for a national decision-making process on their import and export;
3. and disseminating these decisions to parties.

Annex III chemicals:

The chemicals listed Annex III include pesticides and industrial chemicals that have been severely restricted for health or environmental reasons by two or more parties and which the conference to subject to the PIC procedure.

There are total of 43 chemicals listed in Annex III 32 are pesticides (including 4 severely hazardous pesticides formulations) and 11 industrial chemicals.

9. Land:

1. United Nations Conventions to Combat Desertification:

1. It was established in 1994, the sole legally binding international agreement linking environment and development to sustainable land management.

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2. The Convention addresses specifically the arid, semi-arid and dry sub-humid areas, known as the drylands, where some of the most vulnerable ecosystems and peoples can be found.
 3. UNCCD 2018-2030 Strategic Framework: It is the most comprehensive global commitment to achieve Land Degradation Neutrality (LDN) in order to restore the productivity of vast expanses of degraded land, improve the livelihoods of more than 1.3 billion people, and reduce the impacts of drought on vulnerable populations to build.
 4. The Convention's 197 parties work together to improve the living conditions for people in drylands, to maintain and restore land and soil productivity, and to mitigate the effects of drought.
 5. The UNCCD is particularly committed to a bottom-up approach, encouraging the participation of local people in combating desertification and land degradation.
 6. The UNCCD secretariat facilitates cooperation between developed and developing countries, particularly around knowledge and technology transfer for sustainable land management.
 7. As the dynamics of land, climate and biodiversity are intimately connected, to meet these complex challenges with an integrated approach and the best possible use of natural resources.
 8. The convention promotes sustainable land management as solution to global challenges. Land degradation is long term loss of ecosystem functions and productivity caused by disturbances from which the land cannot recover unaided.

While the sustainable land management is focused on changes in land cover/land use in order to maintain and enhance eco systems functions and services.

2.REED:

The United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries was launched in 2008 and builds on the convening role and technical expertise of the Food and Agriculture Organization of the United Nations (FAO), the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP). The UN-REDD

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Programme supports nationally led REDD+ processes and promotes the informed and meaningful involvement of all stakeholders, including indigenous peoples and other forest-dependent communities, in national and international REDD+ implementation.

3.REED+

REDD+ means “Reducing Emissions from Deforestation and forest Degradation”, conservation of forest carbon stocks, sustainable management of forests, and enhancement of forest carbon stocks in developing countries.

1. REDD+ is a mechanism developed by Parties to the United Nations Framework Convention on Climate Change (UNFCCC).
2. It creates a financial value for the carbon stored in forests by offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development.
3. Developing countries would receive results-based payments for results-based actions. REDD+ goes beyond simply deforestation and forest degradation and includes the role of conservation, sustainable management of forests and enhancement of forest carbon stocks.

10.Marine:

1.International Whaling Commission:

It is an international body set up under International Convention for the Regulation of Whaling (ICRW). ICRW governs the commercial, scientific, and aboriginal subsistence whaling practices of fifty-nine member nations. It was signed in Washington, D.C., United States, in 1946. Headquarters — Impington, near Cambridge, England. In 1986, it adopted a moratorium on commercial whaling. This ban still continues. India is member of international whaling commission. The IWC currently has 88 member governments from countries all over the world.

The commission is pre-eminent global body responsible for the conservation and management of whales and leads international efforts to tackle the growing range of threats to whales globally including by catch, ship strikes, entanglement, noise and whaling.

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Objectives:

1. To provide for the proper conservation of whale stocks.
2. For orderly development of the whaling industry.

Whale sanctuary:

In 1994, it created the Southern Ocean Whale Sanctuary surrounding the continent of Antarctica. Here, the IWC has banned all types of commercial whaling.

Only two such sanctuaries have been designated by IWC till date. Another is Indian Ocean Whale Sanctuary by the tiny island nation of the Seychelles.

In December 2018 Japan announced its decision to withdraw from IWC.

2.Antarctic treaty system:

Antarctic Treaty and related agreements are collectively known as the Antarctic Treaty System (ATS). It regulate international relations with respect to Antarctica. Antarctica is defined as all of the land and ice shelves south of 60°S latitude. Antarctic Treaty Secretariat Headquarters — Buenos Aires, Argentina.

Antarctic treaty

First arms control agreement established during the Cold War Signed in Washington on 1959(1 December) by the twelve countries whose scientists had been active in and around Antarctica during the International Geophysical Year (IGY) of 1957-58. Entered into force in 1961. Currently has 53 parties. Sets aside Antarctica as a scientific preserve

Provisions

1. Antarctica shall be used for peaceful purposes only (Art. I)
2. Freedom of scientific investigation in Antarctica and cooperation toward that end ... shall continue (Art. II).
3. Scientific observations and results from Antarctica shall be exchanged and made freely available (Art. III).

●.....● **Protocol on Environmental Protection to the Antarctic Treaty**

Signed in Madrid on October 4, 1991. In 1998 — entered into force. It designates Antarctica as a “natural reserve, devoted to peace and science”. It sets forth basic principles applicable to human activities in Antarctica. Article 7 — prohibits all activities relating to Antarctic mineral resources, except for scientific research.

Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), 1982

The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) was established by international convention in 1982 with the objective of conserving Antarctic marine life. This was in response to increasing commercial interest in Antarctic krill resources, a keystone component of the Antarctic ecosystem and a history of over-exploitation of several other marine resources in the Southern Ocean.

Ecosystem-based management

Being responsible for the conservation of Antarctic marine ecosystems, CCAMLR practices an ecosystem-based management approach. This does not exclude harvesting as long as such harvesting is carried out in a sustainable manner and takes account of the effects of fishing on other components of the ecosystem.

International commission

CCAMLR is an international commission with 25 Members, and a further 11 countries have acceded to the Convention. Based on the best available scientific information, the Commission agrees a set of conservation measures that determine the use of marine living resources in the Antarctic.

The key institutional components of CCAMLR are:

The CAMLR Convention which entered into force on 7 April 1982. A decision-making body, the Commission a Scientific Committee which advises the Commission using the best available science Conservation measures and resolutions CCAMLR's Membership and provisions for international cooperation and collaboration Secretariat based in Hobart, Tasmania, that supports the work of the

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Commission. CCAMLR's programs of research, monitoring and the application of conservation measures in the Convention Area make a valuable contribution to global food security.

India's research centres in Antarctic

a) Dakshin Gangotri — established during the third Indian expedition to Antarctica in 1983/84. Abandoned as it was buried in 1990. India's first committed research facility, Dakshin Gangotri, is being used as a supply base.

b) Maitri (1989) – second permanent research station. situated on the rocky mountainous region called Schirmacher Oasis. India also built a freshwater lake around Maitri known as Lake Priyadarshini.

c) Bharti, 2012- Bharati is an Antarctic research station commissioned by India. It is India's third Antarctic research facility and one of two active Indian research stations, alongside Maitri India has demarcated an area beside Larsemann Hills at 69°S, 76°E for construction. The research station has been operational since 18 March 2012, though it is still being run on trial basis and formal launch is awaited. Since its completion, India has become one of nine nations to have multiple stations within the Antarctic Circle. Bharati's research mandate focuses on oceanographic studies and the phenomenon of continental breakup.

3.Arctic council:

1996 – Ottawa declaration, The Arctic Council is an intergovernmental forum for discussing and addressing issues concerning the Arctic region. These include scientific research, and peaceful and sustainable use of resources in the region. Not a treaty-based international organization but rather than. All decision-making happens through consensus between the eight members, and in consultation with the permanent participants. The decisions, recommendations or guidelines of the Arctic Council are non-enforceable and strictly the prerogative of the individual state. Its mandate explicitly excludes military security.

Origin

September 1989 – Initiative of Finland — 8 Arctic countries met in Rovaniemi, Finland to discuss cooperative measures to protect the Arctic environment. As a result, numerous technical and scientific reports being prepared. 1991 – Arctic Environmental Protection Strategy (AEPS) signed by 8 arctic members — declaration on the protection of Arctic environment

Focus areas

1. The Environment and climate change.
2. Bio-diversity.
3. Oceans
4. The indigenous Arctic peoples.

Organization structure

a) **Chairmanship Rotated** every two years once

b) **Secretariat**

1. Rotated biennially with the Chairmanship of the Arctic Council
2. It supports the Chair of the Arctic Council
3. It manages logistics related to the biennial member states' meetings and the more frequent SAO meetings

c) **SAO (Senior Arctic Official)**

1. A government representative, usually from a member states' Ministry of Foreign Affairs
2. Guides and monitors Arctic Council activities in accordance with the decisions and instructions of the Arctic Council Foreign Ministers.

Members :8 countries with territory above the Arctic Circle (Canada, Denmark, Finland, Iceland, Norway, Sweden, the Russian Federation, and the United States)

Observer status in the Arctic Councils open to Non-arctic states, inter-governmental and inter-parliamentary organizations, global and regional, non-governmental organizations. observer country is invited to the meetings of the council. India granted the observer status in 2013 at Kiruna Ministerial Meeting

India and arctic:

The Himadri research station, located in Ny Alesund, Svalbard in Norway, was started in 2008.

The Goa-based National Centre for Antarctic and Ocean Research (NCOAR) is the nodal organization coordinating the research activities at this station.

Why is it significant to India?

1. The Arctic Council does not prohibit the commercial exploitation of resources in the Arctic.
2. It only seeks to ensure that it is done in a sustainable manner.
3. So, countries with ongoing activities in the Arctic hope to have a stake in the commercial exploitation of natural resources there.
4. India could derive some commercial and strategic benefits, given the fact that the Arctic region is rich in some minerals, and oil and gas,
5. With some parts of the Arctic melting due to global warming, the region also opens up the possibility of new shipping routes.

11.Nature:

1.International tropical timber organization:

The International Tropical Timber Organization (ITTO) is an intergovernmental organization promoting the sustainable management and conservation of tropical forests and the expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests. ITTO:

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1. Develops internationally agreed policy guidelines and norms to encourage sustainable forest management (SFM) and sustainable tropical timber industries and trade.
 2. Assists tropical member countries to adapt such guidelines and norms to local circumstances and to implement them in the field through projects and other activities.
 3. Collects, analyzes and disseminates data on the production and trade of tropical timber.
 4. Promotes sustainable tropical timber supply chains.
 5. Helps develop capacity in tropical forestry.

ITTO is an action and field-oriented organization with more than 30 years of experience. It has funded and assisted in the implementation of more than 1000 projects and other activities addressing the many aspects of SFM, such as forest restoration; wood-use efficiency; the competitiveness of wood products; market intelligence and transparency in the tropical timber trade and tropical timber supply chains; forest law enforcement and governance; illegal logging; biodiversity conservation; climate-change mitigation and adaptation; the contributions of non-timber forest products and environmental services; and the livelihoods of forest-dependent communities.

ITTO's membership represents about 90% of the global tropical timber trade and more than 80% of the world's tropical forests.

12.Ozone:

1.Vienna Convention

The Vienna Convention for the Protection of the Ozone Layer was adopted in 1985 and entered into force on 22 Sep 1988. In 2009, the Vienna Convention became the first Convention of any kind to achieve universal ratification.

The objectives of the Convention were for Parties to promote cooperation by means of systematic observations, research and information exchange on the effects of human activities on the ozone layer and to adopt legislative or administrative measures against activities likely to have adverse effects on the ozone layer.

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The Vienna Convention did not require countries to take concrete actions to control ozone-depleting substances. Instead, in accordance with the provisions of the Convention, the countries of the world agreed the Montreal Protocol on Substances that Deplete the Ozone Layer under the Convention to advance that goal. The Parties to the Vienna Convention meet once every three years, back to back with the Parties to the Montreal Protocol, in order to take decisions designed to administer the Convention.

2.Montreal protocol:

The Montreal Protocol on Substances that Deplete the Ozone Layer was designed to reduce the production and consumption of ozone depleting substances in order to reduce their abundance in the atmosphere, and thereby protect the earth's fragile ozone Layer. The original Montreal Protocol was agreed on 16 September 1987 and entered into force on 1 January 1989.

The Montreal Protocol includes a unique adjustment provision that enables the Parties to the Protocol to respond quickly to new scientific information and agree to accelerate the reductions required on chemicals already covered by the Protocol. These adjustments are then automatically applicable to all countries that ratified the Protocol.

Since its initial adoption, the Montreal Protocol has been adjusted six times. Specifically, the Second, Fourth, Seventh, Ninth, Eleventh and Nineteenth Meetings of the Parties to the Montreal Protocol adopted, in accordance with the procedure laid down in paragraph 9 of Article 2 of the Montreal Protocol, certain adjustments and reductions of production and consumption of the controlled substances listed in the Annexes of the Protocol. These adjustments entered into force, for all the Parties, on 7 March 1991, 23 September 1993, 5 August 1996, 4 June 1998, 28 July 2000 and 14 May 2008, respectively.

The Parties to the Montreal Protocol have amended the Protocol to enable, among other things, the control of new chemicals and the creation of a financial mechanism to enable developing countries to comply.

India and Montreal Protocol

India became a party to the Montreal Protocol in 1992.

Kigali Amendment

The Kigali Amendment aims for the phase-down of hydrofluorocarbons (HFCs) by cutting their production and consumption. In 2016, more than 170 countries agreed to amend the Montreal protocol on Substances that Deplete the Ozone Layer in Kigali/Rwanda.

Given their zero impact on the depletion of the ozone layer, HFCs are currently used as replacements of hydro chlorofluorocarbons (HCFCs) and chlorofluorocarbons (CFCs), however they are powerful greenhouse gases.

The amendment has entered into force on 1 January 2019 with a goal to achieve over 80% reduction in HFC consumption by 2047.

The impact of the amendment will avoid up to 0.5 °C increase in global temperature by the end of the century.

It is a legally binding agreement between the signatory parties with non-compliance measures.

The amendment has divided the signatory parties into three groups-

Group I -consists of rich and developed economies like USA, UK and EU countries who will start to phase down HFCs by 2019 and reduce it to 15% of 2012 levels by 2036.

Group II -consists of emerging economies like China, Brazil as well as some African countries who will start phase down by 2024 and reduce it to 20% of 2021 levels by 2045.

Group III -consists of developing economies and some of the hottest climatic countries like India, Pakistan, Iran, Saudi Arabia who will start phasing down HFCs by 2028 and reduce it to 15% of 2024-2026 levels till 2047.

Questions:

1. Give detailed account of Environment Protection Act of 1986.
2. Explain the role and functions of national green tribunal.
3. Give short notes on:
 1. WCCB
 2. Ramsar convention
 3. Basel convention
 4. International Maritime Organization

