

Basic Environmental Engineering And Pollution Abatement
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Lecture: 19
Environmental Laws And Regulatory Framework

Hello everyone. Now we will discuss on the topic Environmental Laws and Regulatory Framework. We have already discussed that to prevent the pollution control, we should be aware about the importance of clean environment, the technological aspect, how to control the environmental pollution and to reduce the pollution level as well. Apart from that, to ensure the environmental quality, we need some guidelines and standards and regulatory framework along with some rules and acts and regulation and overall environmental laws are very-very important.

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In this class, we will discuss on environmental protection from Indian constitution perspective, mandatory requirements, environmental laws and acts like say Environmental protection act, Air prevention and control of pollution act, Water prevention and control act, Hazardous waste management rules, Solid waste management rules, Plastic waste management rules, Wildlife protection act, Ozone depleting substances, regulations and control rules. The biological diversity act and the forest conservation act. And also we will discuss the regulatory framework.

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Environment protection – from Indian constitution perspective

Article 48-A : "The State shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country".

Article 51-A(g): "It shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures."

Article 21 : "No person shall be deprived of his life or personal liberty except according to procedure established by law."

Article 47 : "The State shall regard the raising of the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties and, in particular, the State shall endeavour to bring about prohibition of the consumption except for medicinal purposes of intoxicating drinks and of drugs which are injurious to health."

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Environment protection – from Indian constitution perspective

The 42nd amendment to the Constitution brought about in the year 1974 makes it the responsibility of the State Government to protect and improve the environment and to safeguard the forests and wildlife of the country. The latter, under Fundamental Duties, makes it the fundamental duty of every citizen to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures.

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Now, we will see environmental protection from Indian constitution perspective. The constitution of India has given some provision in terms of laws to protect the environment. Some articles as mentioned here.

Article 48-A, the state shall endeavor to protect and improve the environment and to safeguard the forests and wildlife of the country. So, this is the constitutional provision. And article 51 A(g), It shall be the duty of every citizen of India to protect and improve the natural environment, including forests, Lakes, rivers, and wildlife, and to have compassion for living creatures.

Article 21 also says. No person shall be deprived of his life, or personal liberty, except according to procedure established by law. And article 47, the state shall regard, the raising of the level of nutrition and the standard of living of its people, and the improvement of public health as among its primary duties. And, in particular, the state shall endeavor to bring about prohibition of the consumption except for medical purposes of intoxicating drinks and of drugs, which are injurious to health that is also indirectly related to environment

And the 42nd amendment to the constitution brought here 1974 makes it the responsibility of the state government to protect and improve the environment and to safeguard the forests and wildlife of the country. The latter, under fundamental duties makes it the fundamental duty of every citizen to protect and improve the natural environment, including forests, lakes, rivers, and wildlife and to have compassion for living creatures. So, these are the different articles of Constitution of India, which is to safeguard the environmental quality in the country.

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Environment protection – from Indian constitution perspective	
The subjects related to environment in the seventh schedule of the Constitution:	
Union List	
Entries	
52	Industries.
53	Regulation and development of oil fields and mineral oil resources.
54	Regulation of mines and mineral development.
56	Regulation and development of inter-State rivers and river valleys.
57	Fishing and fisheries beyond territorial waters.
State List	
Entries	
6	Public health and sanitation.
14	Agriculture, protection against pest and prevention of plant diseases.
18	Land, colonization, etc.
21	Fisheries.
23	Regulation of mines and mineral development subject to the provisions of List-I.
24	Industries subject to the provisions of List-I.

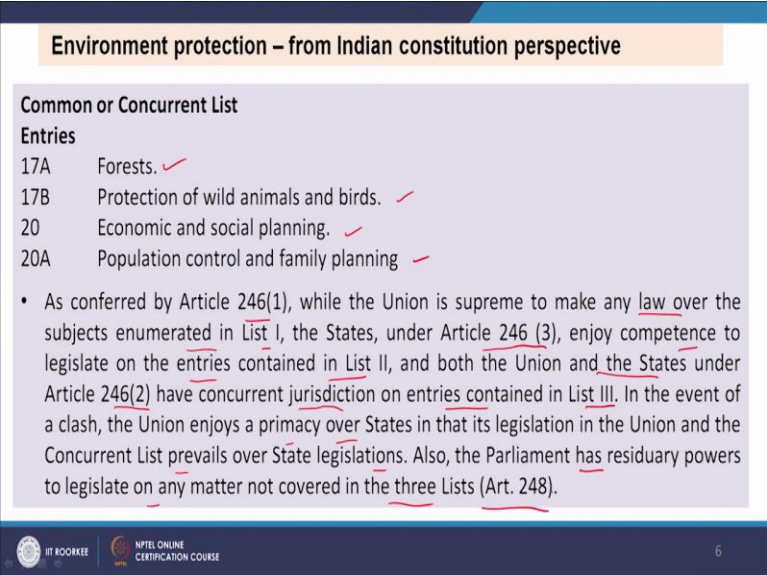
Now we will see the subjects related to environment in the seventh schedules of the Constitution. There are three types of subject list. Say or entries we can say to Union list is there that is list one state list and some common lists.

So list 1, list 2 and list 3 important entries under union list are industries, regulations and development of oil fields and mineral oil resources, regulation of mines and mineral development, regulations and development of inter-state rivers and river valleys, fishing and

fisheries beyond territorial waters and important entries under state list are public health and sanitation agriculture, protection against pest and prevention of plant diseases, land, colonization etc, fisheries and regulation of mines and mineral development subject to provisions of list-1, and industry subject to the provision of list-1.

So, list-1 means under the union list, some, there are some provisions state has also some responsibility on it or control on it.

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Environment protection – from Indian constitution perspective

Common or Concurrent List

Entries

17A	Forests. ✓
17B	Protection of wild animals and birds. ✓
20	Economic and social planning. ✓
20A	Population control and family planning ✓

- As conferred by Article 246(1), while the Union is supreme to make any law over the subjects enumerated in List I, the States, under Article 246 (3), enjoy competence to legislate on the entries contained in List II, and both the Union and the States under Article 246(2) have concurrent jurisdiction on entries contained in List III. In the event of a clash, the Union enjoys a primacy over States in that its legislation in the Union and the Concurrent List prevails over State legislations. Also, the Parliament has residuary powers to legislate on any matter not covered in the three Lists (Art. 248).

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And the entries under common or concurrent list are forests, protection of wild animals and birds, economic and social planning, population control and family planning. So, as conferred by article 246-1 while the union is supreme to make any law over the subjects enumerated in list-1 the states under Article 246-3 enjoy competence to legislate on the entries contained in list-2.

And both the union and the states under Article 246-2 have concurrent jurisdictions on entries contained in list-3, there is the common list in the event of a clash, the union enjoys a primary over states in that its legislation in the Union and the concurrent list prevails over state legislations. Also the parliament has residuary powers to legislate on any matter not covered in the three lists that is article 248. So, these are some constitutional provisions.

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Mandatory requirements – Environmental laws and acts

Environmental (Protection) Act, 1986 ✓

The Environment (Protection) Act, 1986 was introduced as an umbrella legislation that provides a holistic framework for the protection and improvement to the environment. In terms of responsibilities, the Act and the associated Rules requires for obtaining environmental clearances for specific types of new / expansion projects (addressed under Environmental Impact Assessment Notification, 1994) and for submission of an environmental statement to the State Pollution Control Board annually.

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Mandatory requirements – Environmental laws and acts

Air (Prevention And Control Of Pollution) Act 1981

The objective of this Act is to provide for the prevention, control and abatement of air pollution, for the establishment, with a view to carrying out the aforesaid purposes, of Boards, for conferring on and assigning to such Boards powers and functions relating thereto and for matters connected therewith.

Decisions were taken at the United Nations Conference on the Human Environment held in Stockholm in June 1972, in which India participated, to take appropriate steps for the preservation of the natural resources of the earth which, among other things, includes the preservation of the quality of air and control of air pollution. Therefore it is considered necessary to implement the decisions foresaid in so far as they relate to the preservation of the quality of air and control of air pollution.

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Now, we will discuss some mandatory requirements or environmental laws and acts. So, here we see the Environmental Protection Act 1986. So, this law certainly will be to protect the environment and say when some new industry is set up, at that time, it is necessary to get environmental clearance from the government. Either environmental assessment is required or necessary steps should be followed.

The Environmental Protection Act 1986 was introduced as an umbrella legislation that provides a holistic framework for the protection and improvement to the environment. In terms of responsibilities, the act and the associated rules, requires for obtaining environmental clearances

for specific types of new or expansion projects addressed under environmental impact assessment notification 1994 and for submission of an environmental statement to the State Pollution Control Board annually.

Recently, government has notified that any sugar industry or distillery industry can increase their capacity without affecting the environment by the change of feedstock or improvement in the design of units etc. So, there are some provisions which all are under this Act. So, whenever some new initiatives is coming or its capacity increment is required. Then certainly care should be taken that environment is not being affected.

Now, air prevention and control of Pollution Act 1981, so, the objective of this act is to provide for the prevention, control and abatement of air pollution, for the establishment with a view to carrying out the aforesaid purposes of boards for conferring on and assisting to such boards powers and functions relating they are to hand for matters connected therewith.

So, this is very-very important to any industry to get approval from the State Government Board, Pollution Control Board from the State Pollution Control Board for its consent to get the consent to operate, where environmental clearances, is given.



And decisions were taken at the United Nations Conference on the Human Environment held in Stockholm in June 1972. In which India participated, to take appropriate steps for the prevention of the natural resources of the earth, which among other things includes the prevention of the quality of air and control of air pollution. Therefore, it is considered necessary to implement the decisions foresaid in so far as they relate to the preservation of the quality of air and control of air pollution.

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Mandatory requirements – Environmental laws and acts

Water (Prevention & Control) Act 1974

The objectives of the Water (Prevention and Control of Pollution) Act are to provide for the Prevention and Control of Water Pollution and the maintenance or restoration of the wholesomeness of water for the establishment, with a view to carrying out the purposes aforesaid, of Boards for the prevention and control of water pollution, for conferring on and assigning to such Boards powers and functions relating thereto and for matters connected therewith.

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Mandatory requirements – Environmental laws and acts

Hazardous Wastes (Management And Handling) Amendment Rules, 2003

These Rules classify used mineral oil as hazardous waste under the Hazardous Waste (Management & Handling) Rules, 2003 that requires proper handling and disposal. Organization will seek authorization for disposal of hazardous waste from concerned State Pollution Control Boards (SPCB) as and when required.

Important guidelines

- Hazardous wastes shall be collected, treated, stored and disposed of only in such facilities as may be authorized for this purpose.
- Every occupier generating hazardous wastes and having a facility for collection, reception, treatment, transport, storage and disposal of such wastes shall take grant from Govt. for authorization for any of the above activities.
- Any person who intends to be an operator of a facility for the collection, reception, treatment, transport, storage and disposal of hazardous wastes, shall take grant from Govt. for authorization for any of the above activities.
- The State Government or a person authorized by it shall undertake an environmental impact study before identifying a site as waste disposal site in the State.

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Next, Water Prevention and Control Act 1974. The objectives of water prevention and control of Pollution Act are to provide for the prevention and control of water pollution and the maintenance or restoration of the wholesomeness of water for the establishment with a view to carrying out the purposes aforesaid of boards for the prevention and control of water pollution for conferring on and assigning to such boards powers and functions relating thereto and for matters connected therewith.

Now, hazardous waste management and handling amendment rules 2003. So, these rules certainly related to the management of hazardous waste and what are hazardous waste we have

already discussed. It must have one or combination of some characteristics, we have mentioned in the earlier class.

So, these rules classify used mineral as hazardous waste under the Hazardous Waste Management and handling rules 2003 that requires proper handling and disposal. Organization will seek authorization for disposal of hazardous waste from concerned state, pollution control boards, as and when required.

So, there are certain guidelines and some rules, which all organizations need to follow for the management of hazardous wastes. And some important guidelines are say hazardous waste shall be collected, treated, stored and disposed of only in such facilities as may be authorized for this purpose.



Every occupier generating hazardous waste and having a facility for collection, reception treatment, transport, storage and disposal of such wastes shall take grant from government for authorization for any of the above activities. Therefore always some authorized organization only are allowed for that to perform the disposal activities of hazardous waste.

Any person who intends to be an operator of a facility for the collection, reception, treatment, transport, storage and disposal of hazardous waste shall take grant from government for authorization for any of the above activities. The state government or a person authorized by it shall undertake an environmental impact study before identifying a site as waste disposal site in the state.

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Mandatory requirements – Environmental laws and acts
Hazardous waste management rules



- Before hazardous wastes is delivered at the hazardous waste site, the occupier or operator of a facility shall ensure that the hazardous wastes is packaged in a manner suitable for storage and transport and the labelling and packaging shall be easily visible and be able to withstand physical conditions and climate factors.
- The State Government or a person authorized by it shall undertake a continuing programme to identify the sites and compile and publish periodically an inventory of disposal sites within the State for the disposal of hazardous wastes.
- The occupier generating hazardous waste and operator of a facility for collection, reception, treatment, transport, storage and disposal of hazardous waste shall maintain records of such operations in prescribed Form
- Where an accident occurs at the facility or on a hazardous waste site or during transportation of hazardous wastes, the occupier or operator of a facility shall report immediately to the State

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Mandatory requirements – Environmental laws and acts
Solid wastes management rule 2016

No person should throw, burn, or bury the solid waste generated by him, on streets, open public spaces outside his premises, or in the drain, or water bodies. Generator will have to pay 'User Fee' to waste collector and for 'Spot Fine' for Littering and Non-segregation

These rules shall apply to every urban local body, outgrowths in urban agglomerations, census towns as declared by the Registrar General and Census Commissioner of India, notified areas, notified industrial townships, areas under the control of Indian Railways, airports, airbases, Ports and harbours, defence establishments, special economic zones, State and Central government organisations, places of pilgrims, religious and historical importance as may be notified by respective State government from time to time and to every domestic, institutional, commercial and any other non residential solid waste generator situated in the areas except industrial waste, hazardous waste, hazardous chemicals, bio medical wastes, e-waste, lead acid batteries and radio-active waste, that are covered under separate rules framed under the Environment (Protection) Act, 1986.



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Mandatory requirements – Environmental laws and acts

Plastic wastes management rule 2016

The Plastic Waste Management Rules, 2016 aim to:

- Increase minimum thickness of plastic carry bags from 40 to 50 microns and stipulate minimum thickness of 50 micron for plastic sheets also to facilitate collection and recycle of plastic waste,
- Expand the jurisdiction of applicability from the municipal area to rural areas, because plastic has reached rural areas also;
- To bring in the responsibilities of producers and generators, both in plastic waste management system and to introduce collect back system of plastic waste by the producers/brand owners, as per extended producers responsibility;
- To introduce collection of plastic waste management fee through pre-registration of the producers, importers of plastic carry bags/multilayered packaging and vendors selling the same for establishing the waste management system;
- To promote use of plastic waste for road construction as per Indian Road Congress guidelines or energy recovery, or waste to oil etc. for gainful utilization of waste and also address the waste disposal issue; to entrust more responsibility on waste generators, namely payment of user charge as prescribed by local authority, collection and handing over of waste by the institutional generator, event organizers.

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Before hazardous wastes is delivered at the hazardous waste site. The occupier or operator of a facility shall ensure that the hazardous waste is packed in a manner suitable for storage and transport and the labeling and packaging shall be easily visible and be able to withstand physical conditions and climate factors.

The state government or a person authorized by it shall undertake a continuing programme to identify the sites and compile and publish periodically an inventory of disposal sites within the state for the disposal of hazardous waste. The occupier generating hazardous waste and operator of a facility for collection, reception, treatment, transport, storage and disposal of hazardous waste shall maintain records of such operations in prescribed form. Where an accident occurs at the facility or on a hazardous waste site or during transportation of hazardous waste, the occupier or operator of a facility shall report immediately to the state.

Then solid waste management rule 2016 so before 2016 we did not have solid waste management rule. But now, the solid waste management rule is implemented and as per this rule no person should throw burn or bury the solid waste generated by him or treats open public spaces outside his premises or in the drain or water bodies. Generator will have to pay User Fee to waste collector and for Spot Fine for littering and non-segregation.

These rules shall apply to every urban local body outgrowths in urban agglomerations, census towns as declared by the Registered General and Census Commissioner of India. Notified areas notified industrial townships areas under the control of Indian railways, airports airbases ports

and harbours, defense establishment, special economic zones, state and central government organizations places of pilgrims, religious and historical importance as may be notified by respective state government from time to time.

And to every domestic institutional commercial and any other non residential solid waste generated situated in the areas except industrial waste, hazardous waste, hazardous chemicals, biomedical waste, e-waste, lead acid batteries and radioactive wastes. So, that are covered under separate rules framed under the Environment Protection Act 1986, there is hazardous waste management rules.

Now, plastic waste management rule 2016 is similar to this solid waste management plastic waste management rule was not also available in the country before 2016. And as you know that plastic is also waste plastic is also the part of municipal solid waste. So, both rules were implemented in 2016.

And the plastic waste management rules 2016 aims to increase minimum thickness of plastic carry bags from 40 to 50 microns and stipulate minimum thickness of 50 micron for plastic sheets also to facilitate collections and recycle of plastic waste. Expand the jurisdictions of applicability from the municipal area to rural areas, because plastic has reached rural areas also.

To bring the responsibilities of producers and generators both in plastic waste management system and to introduce collect back system of plastic waste by the producers or brand owners as per extended producers responsibility. To introduce collection of plastic waste management fee through pre-registrations of the producers, importers of plastic carry bags, multilayered packaging and vendors selling the same for establishing the waste management system.

To promote use of plastic waste for road constructions as per Indian Roads Congress guidelines or energy recovery or waste to oil etc. For gainful utilization of waste and also address the waste disposal issue to entrust more responsibility on waste generators, namely payment of user charge as prescribed by local authority, collections and handling over of waste by the institutional generator event organizers.

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□ Recycling ✓

- Primary recycling – Product characteristics similar to those of original product. ✓
- Secondary recycling – Product characteristics different from those of original plastics product. ✓
- Tertiary recycling - Production of basic chemicals and fuels from plastics waste/scrap as part of the municipal waste stream or as a segregated waste. ✓
- Quaternary recycling - Retrieves the energy content of waste/scrap plastics by burning / incineration. **This process is not in use in India.** ✓

CPCB recommended options ✓

- Polymer coated bitumen for road ✓
- Plasma gasification ✓
- **Liquid fuel production** ✓

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Here we see different options which are available for the management of plastics waste. So, they like say the recycling. So, primary recycling, secondary recycling, tertiary recycling and quaternary recycling.

So, primary recycling means product characteristic similar to those of original product and secondary recycling product characteristic, different from those of original plastics product and tertiary recycling production of basic chemicals and fuels from plastics, waste scrap as part of the municipal waste stream or as a segregated waste, and quaternary retrieves the energy content of waste scrap plastics by burning incineration.

But out of these different options, incineration is ban this is not recommended. This process is not in use in India. So, CPCB recommended some options like say polymer coated bitumen for road just we have discussed in the previous slide that it can be used for road construction and then plasma gasification and liquid fuel production. Then secondary recycling is also an attractive options which is also being explored.

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Mandatory requirements – Environmental laws and acts

Wildlife Protection Act, 1972 ✓

According to the Wildlife Protection Act, 1972 "wildlife" includes any animal, bees, butterflies, crustacea, fish and moths; and aquatic or land vegetation which forms part of any habitat. In accordance with Wildlife (Protection) Amendment Act, 2002 "no alteration of boundaries / National Park / Sanctuary shall be made by the State Govt. except on recommendation of the National Board for Wildlife (NBWL)".

Further, in terms of Supreme Court Order dated 13.11.2000 the State Govts have to seek prior permission of Supreme Court before submitting the proposal for diversion of forest land in National Park sanctuaries.

Whenever, any part of Wildlife Sanctuary / National Park is getting affected by a hydro project the forest proposal in respect of such project is entertained by MoEF, GOI only after permission of de-reservation / de-notification of Wildlife Sanctuary /National Park has been accorded. After recommendation of Standing Committee of NBWL proposal for de-reservation/ de-notification is ratified by Hon'ble Supreme Court.

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Now wildlife protection act 1972. So, according to the wildlife protection act 1972, wildlife includes any animal bees, butterflies, crustacean, fish and moths and aquatic or land vegetations which forms part of any habitat. In accordance with wildlife protection Amendment Act 2002. No alteration of boundaries, National Park, Sanctuary shall be made by the state government, except on recommendation of the National Board for wildlife.

Further, in terms of supreme court order, dated 13. 11. 2000. The state governments have to seek prior permission of Supreme Court before submitting the proposal for diversion of forest land in National Park in sanctuaries. Whenever any part of wildlife sanctuary or National Park is getting affected by hydro project.

The forest proposal in respect of such project each entertained by MoEF government of India only after permission of de-reservation, and de-notification of wildlife sanctuary, National Park has been accorded. After recommendation of standing committee of NBWL proposal for de-reservation de-notification is ratified by honorable Supreme Court.

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Mandatory requirements – Environmental laws and acts

Ozone Depleting Substances (Regulation And Control) Rules, 2000

MoEF vide its notification dt. 17th July, 2000 under the section of 6, 8 and 25 of the Environment (Protection) Act, 1986 has notified rules for regulation/ control of Ozone Depleting Substances (ODS) under Montreal Protocol. As per the notification certain control and regulation has been imposed on manufacturing, import, export, and use of these compounds.

Organisations as per provisions of notification shall phase out all equipment, which uses these substances, and is aiming at CFC free organisation in near future.

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Then ozone depleting substances regulations and control rules 2000. MoEF vide its notification dated 17 July 2000 under the section of 6, 8 and 25 of the Environment Protection Act 1986 has notified rules for regulation, control of ozone depleting substances under Montreal Protocol. As per the notification certain control and regulation has been imposed on manufacturing, import export and use of these compounds. Organizations as per provisions of notifications shall phase out all equipment, which uses these substances and is aiming at CFC free organizations in near future.

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Mandatory requirements – Environmental laws and acts

The Biological Diversity Act, 2002

The Ministry of Environment and Forests has enacted the Biological Diversity Act, 2002 under the United Nations Convention on Biological Diversity signed at Rio de Janeiro on the 5th day of June, 1992 of which India is also a party. This Act is to “provide for the conservation of biological diversity, sustainable use of its components, and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge and for matters connected therewith or incidental thereto.” As per the provision of act certain areas, which are rich in biodiversity and encompasses unique and representative ecosystems are identified and designated as biosphere reserve to facilitate its conservation. All restrictions applicable to protected areas like National Park & Sanctuaries are also applicable to these reserves.

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Mandatory requirements – Environmental laws and acts

The Forest (Conservation) Act, 1980 ✓

This Act provides for the conservation of forests and regulating diversion of forestlands for non-forestry purposes. When projects falls within forestlands, prior clearance is required from relevant authorities under the Forest (Conservation) Act, 1980. State governments cannot de-reserve any forestland or authorise its use for any non-forest purposes without approval from the Central government.



The biological diversity act 2002. The Ministry of Environment and Forest has enacted the biological diversity act 2002 under the United Nations Convention on Biological Diversity signed at Rio de Janeiro on the 5th day of June 1992, of which India is also a party. This act is to provide for the conservation of biological diversity, sustainable use of its components and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge and for matters connected therewith or incidental thereto.

As per the provision of act certain areas, which are rich in biodiversity and encompasses unique and representative ecosystem are identified and designated as biosphere reserve to facilitate its conservation. All restrictions applicable to protected areas like National Park and sanctuaries are also applicable to these reserves.

The Forest Conservation Act 1980, this act provides for the conservation of forests and regulating diversions of forest lands for non forestry purposes. When projects falls within forest lands, prior clearance is required from relevant authorities under the Forest Conservation Act 1980. State governments cannot de-reserve any forestland or authorized its use for any non-forest purposes without approval from the central government.

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Mandatory requirements – Environmental laws and acts



Other pre independence environment related laws

The Shore Nuisance (Bombay and Kolaba) Act, 1853 ✓
This is the earliest Act on the statute book concerning control of water pollution in India.

The Serais Act, 1867 ✓
The Act enjoined upon a keeper of Serai or an inn to keep a certain quality of water fit for consumption by "persons and animals using it" to the satisfaction of the District magistrate or his nominees. Failure for maintaining the standard entailed a liability of rupees twenty.

The North India Canal and Drainage Act, 1873 ✓
Certain offences have been listed under the Act contained in Section 70.

Obstruction in Fairways Act, 1881 ✓
Section 8 of the Act empowered the Central Government to make Rules to regulate or prohibit the throwing of rubbish in any fairway leading to a port causing or likely to give rise to a bank or shoal.

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Mandatory requirements – Environmental laws and acts

Indian Easements Act, 1882 ✓
Illustrations (f), (h) and (j) of Section 7 of the Act deal with pollution of waters.

The Indian Fisheries Act, 1897 ✓
The Indian Fisheries Act, 1897 contains seven sections. Section 5 of the Act prohibits destruction of fish by poisoning waters.

Indian Ports Act, 1908 ✓
Water pollution by oil has been regulated by the Indian Ports Act, 1908.

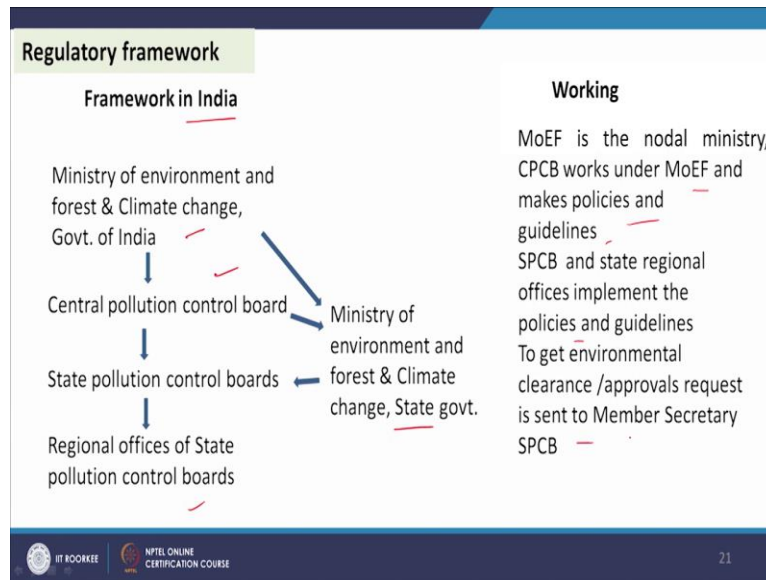
The Indian Forest Act, 1927
Section 26(i) of the Act makes it punishable if any person, who, in contravention of the rules made by the State Government, poisons water of a forest area. The State Government has been empowered under Section 32(f) to make rules relating to poisoning of water in forests.

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So, apart from these, some pre independence, environmental related laws are also shown in this slide. The Shore Nuisance Bombay and Kolaba Act 1853, The Serais Act 1867.

The North India canal and Drainage Act 1873 and Obstruction in Fairways Act 1881 and Indian Easements Act 1882. The Indian Fisheries Act 1897, Indian Ports Act 1908, now the Indian Forest Act 1927.

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So, we see that we have sufficient environment related laws, acts and rules and regulations. This is our responsibility to obey by these rules and regulations and protect our environment. So, these are the laws. Now, some regulatory frameworks are also needed. So, that we are going to discuss it now. So, if we see the framework in India on environmental regulation.

So, we will see this Ministry of Environment and Forests and climate change, Government of India is a nodal ministry, under which we have central pollution control board and Ministry of Environment and Forests and climate change of state government also. And then state pollution control boards are under central pollution control board and then under state pollution control board, regional offices of state pollution control boards are working.

And the working is like this MoEF is the nodal ministry. CPCB works under MoEF and makes policies and guidelines SPCB and state regional offices implement the policies and guidelines framed by the CPCB to get environmental clearance approvals request is sent to members of a secretary, member secretary of State Pollution Control board. So, these are Indian framework.

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Regulatory framework	
Important global organization for controlling environmental quality	
Organization	Role
Intergovernmental panel for climate change (IPCC)	To Provide policy makers with regular scientific assessments on climate change, its implication and future risk
United nations environmental programme (UNEP)	To catalyze and encourage international and national action for more effective management of the environment
Environmental protection agency (EPA, USA)	It is responsible for creating standards and laws promoting the health individual and the environment
World health organization (WHO)	Plays an important role in global governance of health and diseases

Now, international framework, we will be talking about an important global organization for controlling environmental quality is provided here different organizations and their role, like say, Intergovernmental Panel for climate change IPCC. So, the role is to provide policymakers with regular scientific assessments on climate change its implications and future risk.

United Nations Environmental Program UNEP, the role is to catalyze and encourage international and national action for more effective management of the environment. Then Environmental Protection Agency EPA, USA, it is responsible for creating standards and laws promoting the health individual and the environment. World Health Organization, WHO plays an important role in global governance of health and diseases.

So, these are the different international organization which also working dedicatedly to help decision makers of different countries to fix different guidelines and also to implement those. So, up to this in this class, thank you very much for your patience.