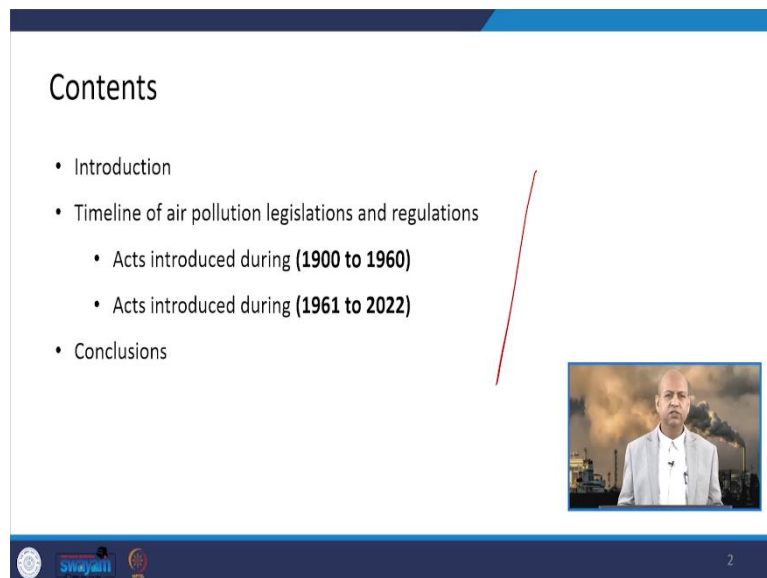


.Air Pollution Control
Professor Bhola Ram Gurjar
Department of Civil Engineering
Indian Institute of Technology Roorkee
Lecture 49
Air Pollution Legislations and Regulations

Hello friends, you may recall last time we discussed about air quality standards. So, basically whether it is air quality standards or legislations or regulations or policies, they contribute in air quality management in an effective air quality management. So, today we will look into air pollution legislations and regulations because they are the backbone of any kind of notifications, acts or policies which government prescribes and which we follow and we meet those standards which are based on those legislations basically.

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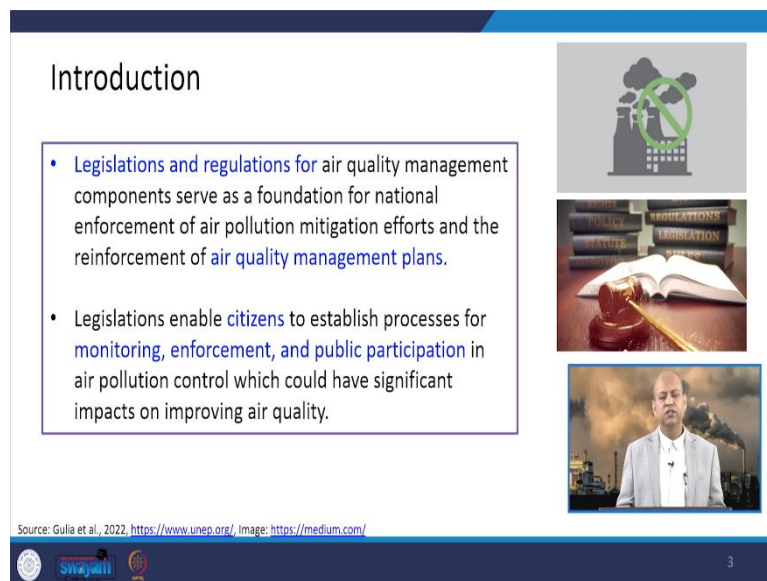
So, in this content, you can look into this introduction part will be there. Say, why we need these lessons, legislations or regulations what are their back bearing, then timeline of air pollution legislations and regulations in context of India, like which acts have been introduced up to 1960 from 1900 to 1960. Then which were the acts which were developed or enacted during 1961 to 2022. So, we will see major or most important acts and notifications in this particular presentation and then we will conclude.

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Introduction

- Legislations and regulations for air quality management components serve as a foundation for national enforcement of air pollution mitigation efforts and the reinforcement of air quality management plans.
- Legislations enable citizens to establish processes for monitoring, enforcement, and public participation in air pollution control which could have significant impacts on improving air quality.

Source: Gulia et al., 2022, <https://www.unep.org/>, Image: <https://medium.com/>




So, when we talk about legislations and regulations, basically, they are the tools, soft tools for air quality management. So, these components serve as foundation for national policy framework on enforcement of air pollution mitigation plans or efforts and for the reinforcement of air quality management plans.

So, legislations basically help us or enable the citizens to establish processes and methodologies or programs for monitoring or enforcement or public participation in air pollution control which could like have significant impacts on improving the ambient air quality or if those legislations are related to indoor air quality, then they will improve the indoor air quality.

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Timeline of air pollution legislation and regulation (1/2)

Year	Legislation/Regulation
1905	Bengal Smoke Nuisance Act
1912	Bombay Smoke Nuisance Act
1939	Motor Vehicles Act
1948	Factories Act
1951	The Industrial (Development and Regulation) Act
1952	The Inflammable Substances Act
1952	The Mines Act
1962	The Atomic Energy Act
1963	Gujrat Smoke Nuisance Act



Source: Gulia et al., 2022

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So, this is the timeline in brief in 1905, Bengal Smoke Nuisance Act was enacted. Then in 1912, Bombay Smoke Nuisance Act was established. In 1939 Motor Vehicles Act was there and Factories Act was enacted in 1948. Then in 1951, the Industrial Development and Regulation Act has been enacted, basically, we are looking into only those acts which directly or indirectly influenced the air quality.

In 1952, the Inflammable Substances Act was enacted and the Mines Act was established or passed in 1952. Then in 1962, we had the Atomic Energy Act and in 1963, Gujarat Smoke Nuisance Act was formulated.

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Timeline of air pollution legislation and regulation (2/2)

Year	Legislation/Regulation
1981	Air (Prevention and Control of Air Pollution) Act (Air Act, 1981)
1986	The Environment (Protection) Act (EPA)
1995	National Environment Tribunal Act (NETA)
1997	National Environment Appellate Authority (NEAA) Act
2000	The Ozone Depleting Substances (Regulation and Control) Rules
2010	National Green Tribunal Act
2021	Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021
2022	Draft notification for e-Vehicles in NCR



Source: Gulia et al., 2022

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In 1981, we had, very important this act which is known as Air Prevention and Control of Air Pollution Act or simply Air Act in 1981. Then in 1986, we had one umbrella kind of act this is known as the Environment Protection Act, EPA in 1986. Then afterwards, we had National Environment Tribunal Act, NETA.

In 1997, we had National Environment Appellate Authority, NEAA Act and 2000 is related to the Ozone Depleting Substances Regulation and Control Rules. So, in 2010, then we had National Green Tribunal Act and in 2021, we had Commission for Air Quality Management in National Capital Region and Adjoining Areas Act 2021. So, last year, we had basically and this year just a few days before, we had this draft notification for e-vehicles in NCR that is national capital region.

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1905 1912 1939 1948 1951 1952 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

Bengal Smoke Nuisance Act, 1905 (1/3)

- At a time when there is growing concern about protecting the **Victoria Memorial Hall** from environmental degradation, it is important to recall that '**The Bengal Smoke Nuisance Act, 1905**' was introduced by the **British** to protect the monument.
- The **West Bengal Pollution Control Board (WBPCB)** and **Victoria Memorial Hall (VMH)**, Kolkata arranged for a ceremonious meeting to mark the '**Centennial of the Bengal Smoke Nuisance Act, 1905**'

An under-construction Victoria Memorial

Victoria palace (built between 1906-1921)

Source: http://web.wbpcb.gov.in/html/events/report_smokenuisance.shtml, Image: <https://timesofindia.indiatimes.com>

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So, if we look into one by one of these acts so that we can know, in what, background these apps were enacted, and what was their scope or how they really helped us to improve the air quality. So, if we come to the first act which was Bengal Smoke Nuisance Act in 1905. So, at that time, it was enacted to curtail the smoke from furnaces and other kind of burning activities in and around Kolkata.



So, this Bengal Smoke Nuisance Act 1905 was introduced basically to protect the Victoria Memorial and other issues were also there. So, the West Bengal pollution control board and Victoria Memorial Hall Kolkata arranged for a ceremonious meeting to mark this centennial of this Bengali smoke nuisance act 1905 afterwards.

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1905 1912 1939 1948 1951 1952 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

Bengal Smoke Nuisance Act, 1905 (2/3)

- The Bengal Smoke Nuisance Act was framed in 1905 "for the abatement of nuisances arising from the smoke of furnaces or fire-places in the towns and suburbs of Kolkata and in Howrah and other areas of Bengal".



Source: <https://indair-neeri.res.in/>, Image: <https://www.getbengal.com/>

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Then this act for the abatement of nuisance arising from the smoke for furnaces or fireplaces in the towns and suburb areas of Kolkata and Howrah and other areas of the Bengal so this was the kind of periphery or the area where it was impacted.

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1905 1912 1939 1948 1951 1952 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

Bengal Smoke Nuisance Act, 1905 (3/3)

- The Act stated, "If smoke is emitted from any furnace in greater density or at a lower altitude or for a longer time than is permitted by rules made under this Act, the owner of the furnace shall, on conviction, be punished for the first offence with fine which may extend to Rs 2,000 and for a second or subsequent offence with fine, which may extend to Rs 5,000."
- This act is amended in 2018 and now it may be called as Bengal Smoke-nuisances (Repealing) Act, 2018.



Source: <https://indair-neeri.res.in/>, https://prsindia.org/files/bills_acts/bills_states/west-bengal/2018/Bill%2023%20of%202018%20WB.pdf
Image: <https://www.worldatlas.com/>, <https://epavtarleton.edu/>

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Well, then, it was very kind of stringent acting at that time because it was stated in this particular act that if a smoke is emitted from any furnace in greater density or at a lower altitude or for a longer time period, then what is permitted by the rules made under this particular act, the owner of the furnace shall on conviction be punished for the first offense with fine which may extend up to 2000 rupees.

2000 rupees at that time was very big amount and for a second or subsequent offense with fine which could be even 5000 and but later on in 2018 recently, so this act was repealed because it was no more relevant due to this enforcement of air prevention and control of air pollution 1981 Act. So, it was repealed basically.



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1905 1912 1939 1948 1951 1952 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

Bombay Smoke Nuisance Act, 1912

- The act mentioned, "Whereas it is expedient to enact a law for the abatement of nuisances arising from the smoke of furnaces in the (Greater Bombay) and to provide for the extension thereof to other areas in the state of Maharashtra", the Bombay Smoke Nuisance Act, 1912 was enacted in the first instance to Greater Bombay.

The violation of the rules within the act was subjected to a fine of Rs 250 to Rs 500.



Source: <https://india-neeeri.res.in/>, image: <https://www.theguardian.com/>

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In 1912 we had this Bombay Smoke Nuisance Act, so it was on the line of Bengal Smoke Nuisance Act and here this fine amount was a little bit less in comparison to that amount. So, 250 and 500 were kept in this particular act and this was applicable in the greater Bombay area basically or extension in other areas of the Maharashtra. So, this Bombay Smoke Nuisance Act was enacted in 1912.

and they cause damage to the environment. So, the manufacturer either has to recall those kinds of vehicles, they have to refund the customer the total cost or they have to replace the defective vehicle.

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1905 1912 1939 **1948** 1951 1952 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

Factories Act, 1948

- This was a national act that included the management of activities involving **dust and fumes from industrial complexes**.
- This is the **first act** of independent India indirectly focusing on air pollution.
- The act was enacted for occupational **safety, health and welfare of workers** at work places.
- ✓ Chapter III, Sections 13, 14 and 15 of this act focus on **ventilation, dust, fumes and humidity** related issues pertaining to the health of labor.

Factories Act

Source: Bhawe and Kulkarni, 2015, https://labour.gov.in/sites/default/files/Factories_Act_1948.pdf; image: <https://www.ourlegalworld.com>

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In 1948, we had Factories Act. So, this was a national act that included the management of activities involving dust and fumes from industrial complexes so that we again it is related to air pollution. And this is the first act of independent India, indirectly focusing on air pollution, this Factories Act 1948 and this Act was enacted for occupational safety, health and welfare of workers at the workplace.


So, occupational related issues, it was included and at the chapter third and sections 13, 14 and 15 of this particular act focused on ventilation and dust, fumes and humidity related issues pertaining to the health of labour. So, occupational related hazards included all these kinds of things.

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1905 1912 1939 1948 1951 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

The Industrial (Development and Regulation) Act, 1951

- The act was enacted to **provide for the development and regulation of certain industries.**
- This was the **first act** providing **Power to central government** to cause investigation to be made into scheduled industries or industrial undertakings.
- The extent was limited to the purpose of **conserving any resources of national importance** which are utilized in the industry along with the regulation of production and industrial development.



Source: Bhawe and Kulkarni, 2015, <https://legislative.gov.in/sites/default/files/A1951-65.pdf> Image: <https://www.dhanbadonline.in>

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So, in 1951, we had this Industrial Development and Regulation Act and this Act was enacted to provide for the development and regulation of certain industries. So again certain industries means those could contribute to the air pollution and the extent was limited to the purpose of conserving any resources of national importance which could be utilized in that particular industry along with the regulation of production and industrial development. So, that way indirectly it was also regulating the air pollution.

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1905 1912 1939 1948 1951 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

The Mines Act, 1952

- The consideration of **air pollution** was again limited to the ventilation, actions to be taken in respect of **dust, fire, inflammable and noxious gases** including precautions against **spontaneous combustion, underground fire and coal dust.**



underground fire



Source: Bhawe and Kulkarni, 2015, <https://www.dgms.gov.in/writerreaddata/UploadFile/Mines%20Act,%201952.pdf>

14

The Mines Act of 1952 consideration air pollution was again limited to the ventilation actions to be taken in respect of the dust, fire, inflammable and noxious gases including precautions



against a spontaneous combustion and underground fire, the coal dust. Again related to occupational hazards as such.

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1905 1912 1939 1948 1951 1952 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

The Inflammable Substances Act, 1952

- The act was indirectly **stirring air pollution** through safety.
- The solitary purpose of the act was to **declare certain substances to be dangerously inflammable** and regularizing such substances with Petroleum Act 1934.



Source: Bhavne and Kulkarni, 2015, <https://www.indiacode.nic.in/bitstream/123456789/2165/3/A1952-20.pdf> Image: <https://www.vectorstock.com/>

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In 1952, the Inflammable Substances Act was enacted and again because it was related to air pollution through safety issues indirectly and the solitary purpose of this act was to declare certain substances to be dangerously inflammable and regulating them for under this Petroleum Act of 1934 but indirectly it could also relate to the air pollution.

(Refer Slide Time: 10:49)

1905 1912 1939 1948 1951 1952 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

The Atomic Energy Act, 1962

- The act was addressing only **health impact and safety from the radioactive substances** with the sole purpose of control over atomic energy and radioactive substances.



Source: Bhavne and Kulkarni, 2015, <https://legislative.gov.in/sites/default/files/A1962-33.pdf> Image: <https://www.latestlaws.com/>

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In 1962, afterwards, we had this Atomic Energy Act. So, this act was basically addressing only the health impact and safety from the radioactive substances. So, radioactive substances can go



from one place to another, and it is hazardous and very toxic. So, this substances with the sole purpose of control over atomic energy and radioactive substances, this act was focusing on especially.

(Refer Slide Time: 11:17)

1905 1912 1939 1948 1951 1952 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

Gujrat Smoke Nuisance Act 1963 (1/3)

- The act aimed at the abatement of nuisances arising due to the **smoke of furnaces in the city of Ahmedabad**, areas adjacent to it and other areas in the state as well.
- The **Ringelmann chart** is used as a device for determining whether emissions of smoke are within limits or standards of permissibility (statutes and ordinances) established and expressed with reference to the chart.



Source: <https://indair-neeri.res.in/>, <https://lawsofindia.blinkvisa.com/pdf/gujarat/1964/1964GUJARAT3.pdf> Image: <https://ahmedabadmirror.com>

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Then in 1963, Gujarat Smoke Nuisance Act was enacted. So, this act aimed at the abatement of nuisance arising due to the smoke which was coming out of furnaces in the city of Ahmedabad and in the adjacent area of that Gujarat state and how to identify whether this is nuisance or not. So, this Ringelmann chart was used as a device for determining whether emissions of the smoke are within the limits of the standards or they are violating.


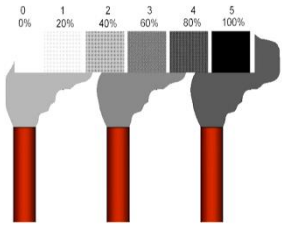
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1905 1912 1939 1948 1951 1952 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

Gujrat Smoke Nuisance Act 1963 (2/3)

The Ringelmann chart (1/2)

- Professor Ringelmann devised a **visual assessment method** for smoke emissions by comparing the darkness of the smoke with standard shades of grey on a chart placed in a suitable position.
- He obtained the grey shade by cross-hatching in black on a white background so that a known percentage of white was obscured



Source: <https://indair-neeri.res.in/>

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And like this kind of chart was used which was prepared by Professor Ringelmann. He devised a visual assessment method. So, like light grey, then darker than black those kind of color schemes were there and this used to be placed into eyesight at a particular distance and it used to be matched with the color of the smoke.

(Refer Slide Time: 12:18)

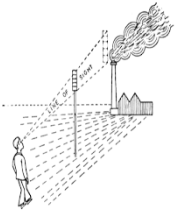

1905 1912 1939 1948 1951 1952 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

Gujrat Smoke Nuisance Act 1963 (3/3)

The Ringelmann chart (2/2)

- These charts were placed at such a distance from the observer that the black lines merged into the white background and produced for each shade, apparently, a uniform grey.
- The number of shades popularly known as Ringelmann numbers ranged from 0 (white) to 5 (black), in steps of 20% change in obscuration on the background.

Ringelmann 0	0% opacity – clear	
Ringelmann 1	20% opacity – barely visible	
Ringelmann 2	40% opacity – clearly visible	
Ringelmann 3	60% opacity – somewhat transparent	
Ringelmann 4	80% opacity – barely transparent	
Ringelmann 5	100% opacity – black	

Source: <https://indair-nceri.res.in/>, <https://www.wiki.sanitarc.si/>, <https://ia903008.us.archive.org/>

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So, one could easily judge whether how much intensity of the pollution is there. So, basically there were five grading 0 to 5, 0 – white, 5 – black and in between, there were different shades of the grey.

(Refer Slide Time: 12:34)

1905 1912 1939 1948 1951 1952 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

Air (Prevention and Control of Air Pollution) Act (Air Act, 1981) (1/2)

- Air (Prevention and Control of Air Pollution) Act (Air Act, 1981) was passed in 1981 to regulate and reduce air pollution.
- This is the first act formulated with the sole purpose to provide for the prevention, control and abatement of air pollution.
- Further, the Air Act, 1981 was amended in 1987, giving the central and state pollution control boards the authority to deal with severe air pollution emergencies.

Source: <https://legislative.gov.in/sites/default/files/A1981-14.pdf>, <https://compvbook.com/1981>

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Well, then we had this very, very important act, this was known, especially Air Prevention and Control of Air Pollution Act or simply Air Act in 1981 this was enacted. So, it was completely exclusively was focused on air pollution and this is the first act which was formulated with the sole purpose to prevent and control and , having the abatement of air pollution to improve the air quality.

In 1987 it was amended basically giving the central and state pollution control boards the authority to deal with severe air pollution related emergencies.

(Refer Slide Time: 13:18)

1905 1912 1939 1948 1951 1952 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

Air (Prevention and Control of Air Pollution) Act (Air Act, 1981) (2/2)

- The Air Act mandates the CPCB and SPCBs to:
 - Establish **national ambient air quality standards** for criteria pollutants,
 - Assist government in **planning future environmental prevention** and control strategies,
 - Carry out **research** to better understand environmental issues,
 - Undertake **nationwide air sampling** to ascertain the ambient air quality in India and identification of the problem areas,
 - Conduct **air quality inspections** in areas of concern.
 - SPCBs can set more **stringent standards than the existing national standards in their respective states.**

Source: <https://legislative.gov.in/sites/default/files/A1981-14.pdf>

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And the Air Act amendment this has mandated through CPCB (Central Pollution Control Board) and the State Pollution Control Board as SPCBs they were given these rights or authority to establish national ambient air quality standards for criteria pollutants, you may recall those standards we have discussed.

So, this is the act which has given the authority to central pollution control board and SPCBs to have the ambient air quality standards and to apply them across India and to assist the Government in planning future environmental prevention and control strategies. So, these were clearly mentioned in this act.

Then carrying out research to better understand environmental issues and undertake nationwide air sampling to ascertain the ambient air quality in India and identification of the related problems in those areas and to conduct air quality inspection in areas of the concern and the

state pollution control boards were allowed to set more stringent standards than what is prescribed by the central government through CPCB.


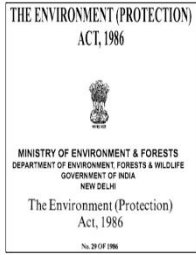
Those air quality standards and the network is now you see of air quality monitoring across India is basically routed in this particular act.

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1905 1912 1939 1948 1951 1952 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

The Environment (Protection) Act (EPA) 1986

- This act came into force on 23rd May, 1986 to provide for the protection and improvement of environment and for matters connected there with.
- This act is serving as an umbrella act for many other rules and laws. e.g. Notification on lead free petrol and catalytic converters for vehicles in metropolitan cities, 1995.



Source: Bhawe and Kulkarni, 2015, https://www.indiacode.nic.in/bitstream/123456789/4316/1/ep_act_1986.pdf

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Then 1986 then we had this Environment Protection Act. This is an umbrella Act which covers many rules and laws and this notification on lead free petrol and catalytic converters for vehicles in metropolitan cities all these many other acts were routed or offshoots of this particular Environment Protection Act.

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1905 1912 1939 1948 1951 1952 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

National Environment Tribunal Act (NETA), 1995

- An Act to provide for strict liability for damages arising out of any accident occurring while handling any hazardous substance.
- Establishment of a National Environment Tribunal for effective and expeditious 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 therewith or incidental thereto.



Source: <https://legislative.gov.in/>, https://www.litr.ac.in/vrfw/web_ua_water_for_welfare/environment/NETA_1995.pdf, Image: <https://suresaftey.org/>

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Well National Environment Tribunal Act, NETA 1995 this was established to this act is to provide basically strict liability for damages arising out of an accident occurring while handling any hazardous substances or the establishment of this particular tribunal for effective and expeditious disposal of cases arising from such accidents with a view to giving relief to people who are victims of those kinds of accidents and the property or the environment and related issues to handle legally and properly and in a fast mode.

(Refer Slide Time: 16:03)

1905 1912 1939 1948 1951 1952 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

National Environment Appellate Authority (NEAA), 1997

- Act was legislated to create a NEAA to deal with complaints involving environmental clearances within restricted areas.
- An Act to provide for the establishment of a National Environment Appellate Authority to hear appeals with respect to restriction of areas in which any industries, operations or processes shall not be carried out or shall be carried out subject to certain safeguards under the Environment (Protection) Act, 1986 and for matters connected therewith or incidental thereto.

Source: <https://legislative.gov.in/sites/default/files/A1997-22.pdf>, Image: <https://bnviournal.com>

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Well, then in 1997, we had this National Environment Appellate Authority. So, this act was legislated to create this authority to deal with complaints involving environmental clearances within the restricted areas, not simple areas but the restricted areas.

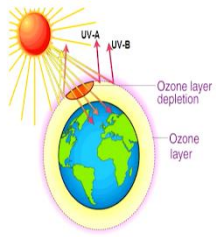
So, this is basically an act to provide for the establishment of this particular authority to hear appeals with respect to restrictions of areas in which any industries or operations or processes shall not be carried out or if they are carried out then with the subject to certain safeguards within the guidelines of the Environment Protection Act of 1986. So, those have to be incorporated which basically.

(Refer Slide Time: 16:43)


1905 1912 1939 1948 1951 1952 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

The Ozone Depleting Substances (Regulation and Control) Rules, 2000 (1/2)

- This act deals with prohibition on new investments with ozone depleting substances, regulation of import, export and sale of products made with or containing ozone depleting substances along amid monitoring and reporting requirements for the same.
- The Ozone Cell established by MoEFCC which has been given the responsibility for carrying out all tasks relating to phase out of ozone depleting substances.



The diagram shows a cross-section of the Earth's atmosphere. The sun is on the left, emitting UV-A and UV-B rays. The ozone layer is shown as a pinkish layer above the Earth's surface. A gap in the ozone layer is labeled 'Ozone layer depletion', and the area below it is labeled 'Ozone layer'.



A photograph of a man in a white shirt and grey jacket, standing in front of a background of industrial smokestacks.

Source: Bhave and Kulkarni, 2015; Image: <https://www.thegoan.net>

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Well, then next is the ozone depletion or ozone depleting substances regulation and control rules 2000. So, this act was for dealing with prohibition of new investments with ozone depleting substances and regulation of import export and sale of those products which have these ozone depleting substances because as Montreal Protocol was signed in 1987 and then some time was given to developing countries.

So, in that process this in 2000, we had this particular act, so that this could be phased out properly. So, the ozone cell established by Ministry of Environment forests and climate change, this has been given the responsibility for carrying out all tasks relating to phasing out of the ozone depleting substances.

(Refer Slide Time: 17:37)

1905 1912 1939 1948 1951 1952 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

The Ozone Depleting Substances (Regulation and Control) Rules, 2000 (2/2)

- The Ministry of Environment, Forest and Climate Change (MoEF&CC) has set up an Ozone Cell as a National Ozone Unit (NOU) to render necessary services for effective and timely implementation of the Montreal Protocol (1987) and its ODS phase-out program in India.
- The details of the ozone cell can be obtained using the following link
<http://ozonecell.nic.in/> ✓



MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
GOVERNMENT OF INDIA
OZONE CELL



Source: Bhavne and Kulkarni, 2015

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So, you can see this particular site is there where it can be seen and it was related to Montreal Protocol.

(Refer Slide Time: 17:44)

1905 1912 1939 1948 1951 1952 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

National Green Tribunal Act 2010

- The National Green Tribunal, established in 2010 is a specialised judicial body equipped with expertise solely for the purpose of resolving environmental cases in the country.
- The Tribunal is tasked with providing effective and expeditious remedy in cases relating to environmental protection, conservation of forests and other natural resources and enforcement of any legal right relating to the environment.



Source: <https://greentribunal.gov.in>, <https://greentribunal.gov.in/fags>

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Next is National Green Tribunal Act 2010. This is very important to hear any kind of complaint. So, this tribunal was established in 2010, it has a specialized judicial body basically equipped with expertise solely for the purpose of resolving environmental cases in the country. So, as environment related cases are heard in this NGT.

This is very important judicial authority. The Tribunal is tasked with providing effective and expeditious remedy in cases relating to environmental protection or conservation of the forest


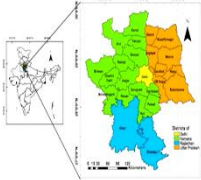
and other natural resources and enforcement of any legal relating to the environment. So, whatever activity is harming the environment, one can complain to NGT and they will give the judgment after hearing all parties.

(Refer Slide Time: 18:45)

1905 1912 1939 1948 1951 1952 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021 (1/3)

- An Act to provide for the constitution of the Commission for Air Quality Management in National Capital Region and Adjoining Areas for better coordination, research, identification and resolution of problems surrounding the air quality index and for matters connected therewith or incidental thereto.



Source: <https://egazette.nic.in/WriteReadData/2021/228982.pdf>, Image: <https://competitiveindia.com/>

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Well, Commission for Air Quality Management in National Capital Region and adjoining areas Act 2021. So, this is to provide basically the constitution of the this commission of Air Quality Management in this NCT, this National Capital Region and adjoining areas for better coordination, research identification and resolution of problems which are surrounding in this area related to poor air quality index or which are matters related to whatever your quality related issues are there.

(Refer Slide Time: 19:21)

1905 1912 1939 1948 1951 1952 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021 (2/3)

- **Objectives of this Act (1/2):**
 - ✓ Planning and execution of a programme for the region for **prevention, control and abatement of air pollution**;
 - ✓ Laying down parameters for the quality of air in its various aspects;
 - ✓ Laying down parameters for **emission or discharge of environmental pollutants** from various sources whatsoever that have implications on air quality in the region.



Source: <https://egazette.nic.in/WriteReadData/2021/228982.pdf>

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So, the objective of this particular Commission has been to plan and execute the program for this region of NCT to prevent control and abatement of the air pollution. And it was also given the s to laying down the parameters for the quality of air in its various aspects. So, that in a comprehensive manner, air quality can be studied and managed.


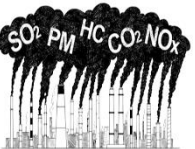
Then it was also for laying down parameters for emissions or discharges of environmental pollutants from different sources whatever they are and their implications in terms of air quality in this particular region.

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1905 1912 1939 1948 1951 1952 1952 1962 1963 1981 1986 1995 1997 2000 2010 2021

Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021 (3/3)

- **Objectives of this Act (2/2):**
 - ✓ Restriction of areas in which any industries, operations or processes or class of industries, that have implications on air quality in the region, shall not be carried out or shall be carried out subject to certain safeguards;
 - ✓ Carrying out and requiring **investigations and research** relating to problems of environmental pollution that have implications on **air quality** in the region
 - ✓ Preparation of **manuals or codes or guidelines** relating to the **prevention, control and abatement** of air pollution in the region



Source: <https://egazette.nic.in/WriteReadData/2021/228982.pdf> Image: <https://www.thomasnet.com/>


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And next like to restrict the areas in which industries are operating or having the processes which can harm the environment in this particular region also to carry out and whatever investigations are needed and to do research relating to the problems of environmental pollution and which are having the implications of air quality in that region and preparation of manuals or guidelines, codes related to the prevention, control and abatement of air pollution in this particular region.

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Draft Notification for e-Vehicles in NCR, 2022 (1/2)

- The prioritization may include early electrification of public transport, para transit, feeder service, large delivery fleet and vehicles owned by Government being high milage vehicles.
 - Mandate a certain percentage in respect of vehicles mentioned
 - Enhancement of this percentage in the medium term and long-term plan.
 - Mandate a percentage for public vehicles including auto-rickshaw, buses, feeder services, Government vehicles, delivery fleets etc. may be high compared to personal vehicles.



Source: Draft Notification for e-Vehicles in NCR, 2022

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Well then only a few days before draft notification of e-vehicles in NCR has been issued. So, this is basically for privatization, which can include early electrification of public transport as Government of India is giving much encouragement for e-vehicles so that we can have zero emission kind of transport sector.

So, these feeder services or transit related vehicles, large delivery fleet vehicles owned by government, so they have to be in this particular act and the mandate of this particular notification is related to certain percentage to remove those petrol or diesel driven vehicles, fossil fuel driven vehicles and to convert them into e-vehicles at a particular percentage and to for doing the enhancement of this percentage after a certain period. So, long term plan is that we can have more and more e-vehicles basically.


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Draft Notification for e-Vehicles in NCR, 2022 (2/2)

- To direct the Transport Department, Government of NCT of Delhi to ensure that all the aggregators and delivery service providers (e.g., food delivery, e-commerce logistics providers, couriers)
- adopt electric vehicles in terms of induction in the new onboarded fleet as per the following proportion, subject to further review

Adoption of electric vehicles	Within three months	Within 31 st March, 2023
Two wheelers	10 % ✓	50 % ✓
Four wheelers	5 % ✓	25 % ✓

Source: Draft Notification for e-Vehicles in NCR, 2022




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So, this particular direction has been given to the transport department of Government of NCT that adaptation of electric vehicles like in terms of two wheelers or four wheelers. So, within three months after this notification was passed, so 10 percent of two wheelers have to be converted to this vehicles. And up to 31st March of 2023. So, only within one year it has to be encouraged up to 50 percent similarly, the four wheelers 5 percent in next three months, and within one year 25 percent.

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Concluding Remarks

- Various legislations and regulations were passed for effective management of air quality and sustainable growth of the economy.
- Along with the formulation of several acts, the enforcement is required to achieve the targets for improving air quality.



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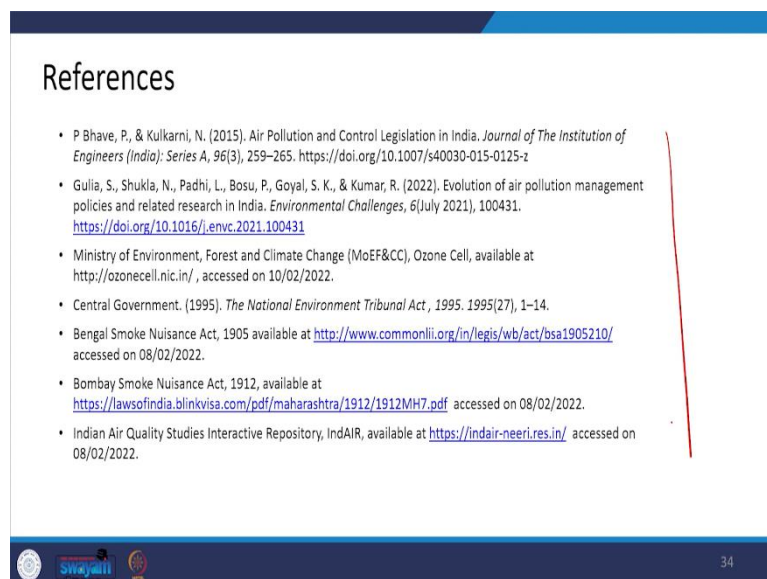
So, we can conclude that there are several legislations. Over the years, those legislations and regulations have been formulated and enacted by the government, for effective management of

the air quality and to ensure the sustainable growth of industrial economy in our country and to safeguard the occupational related issues of the labour and people and also have safe environment in urban areas or in suburban areas.

And now, we talk about the entire country basically. So, there are several legislations have been enacted, but still we are having the problem. So, the basically it is not only important to have the legislations or regulations but we should also go for their proper implementation.

So, that is the key that of course, we should have timely the required legislations or acts or notifications related to air pollution control and mitigation but also their enforcement should be proper and in an effective way, so that we can have the improve air quality and we can have a healthy life.

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So, thank you for your attention. And these are the references we have taken much material for this presentation you can go through these references in leisure time. So, thanks again. See you in the next lecture. Thank you.