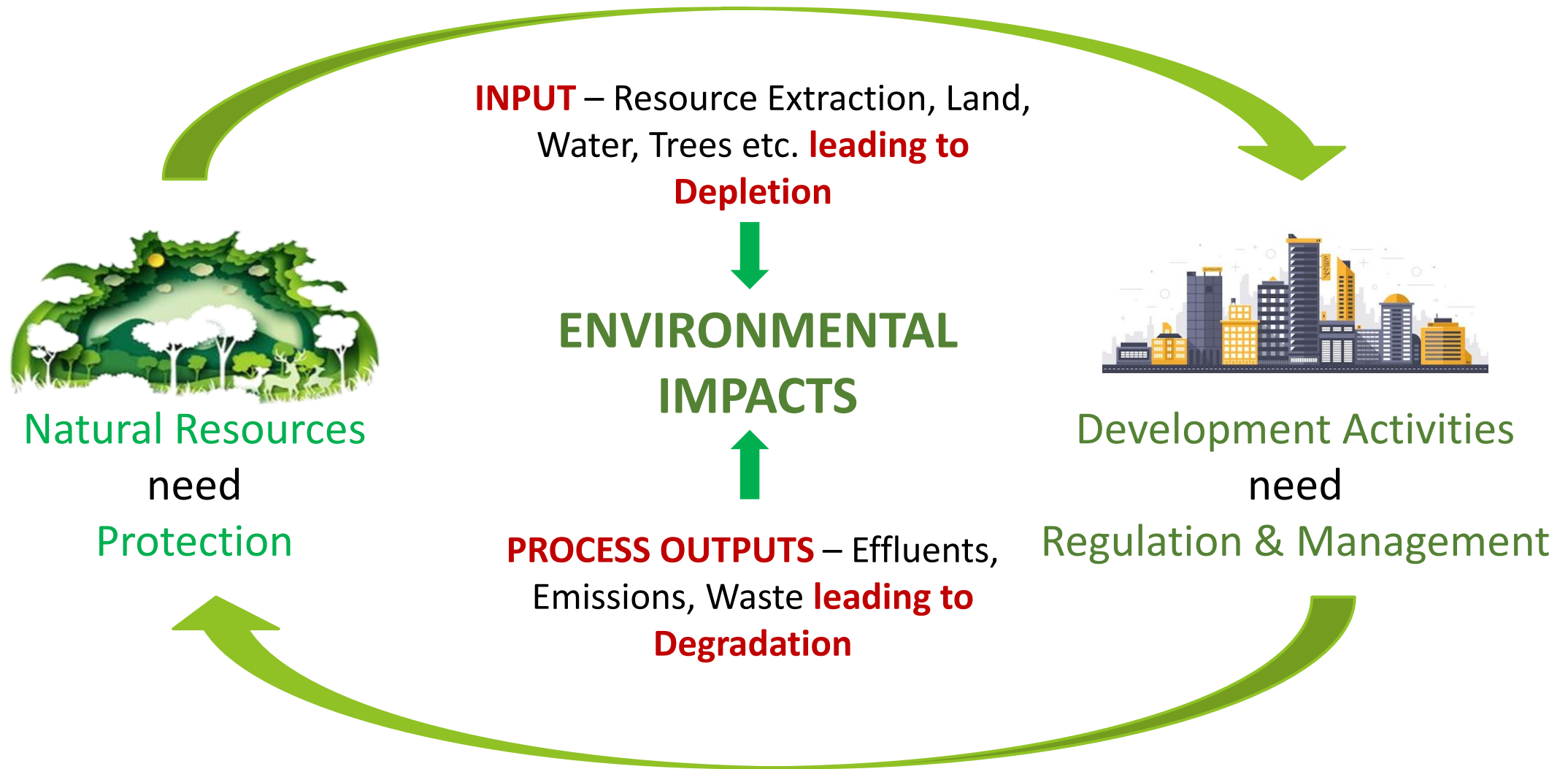


Environmental Governance and regulatory framework

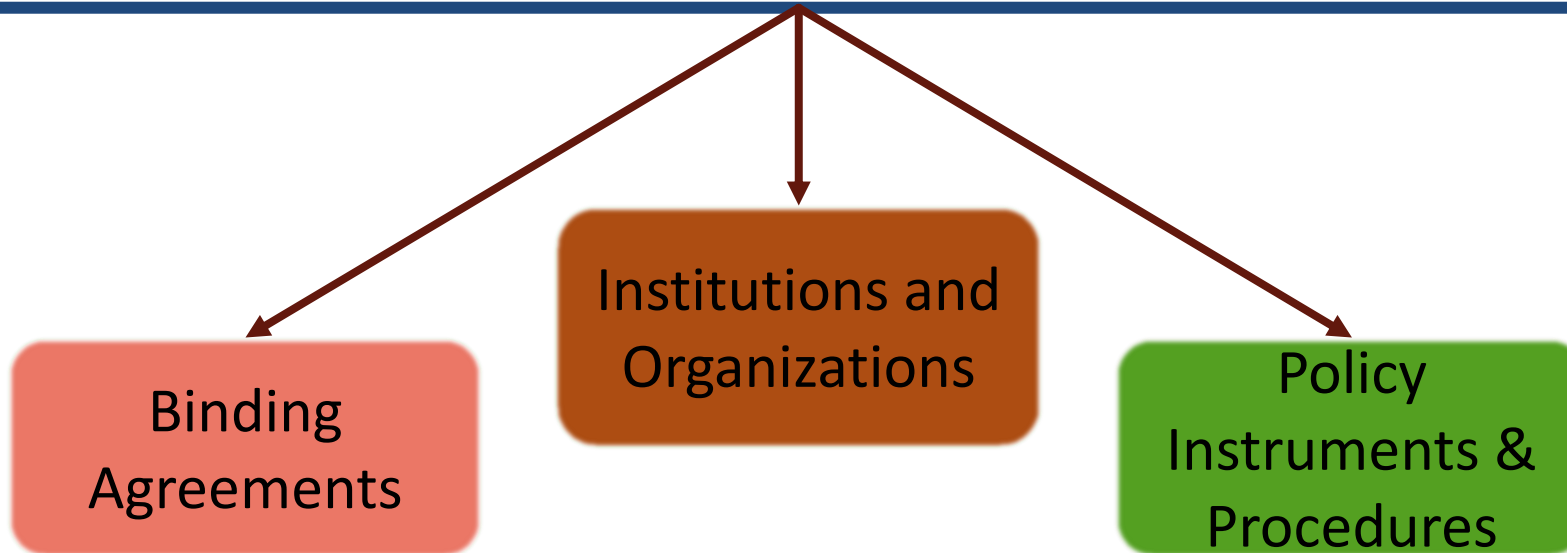
Smriti Rao
Prof. RST/IRIMEE

Environmental Interactions



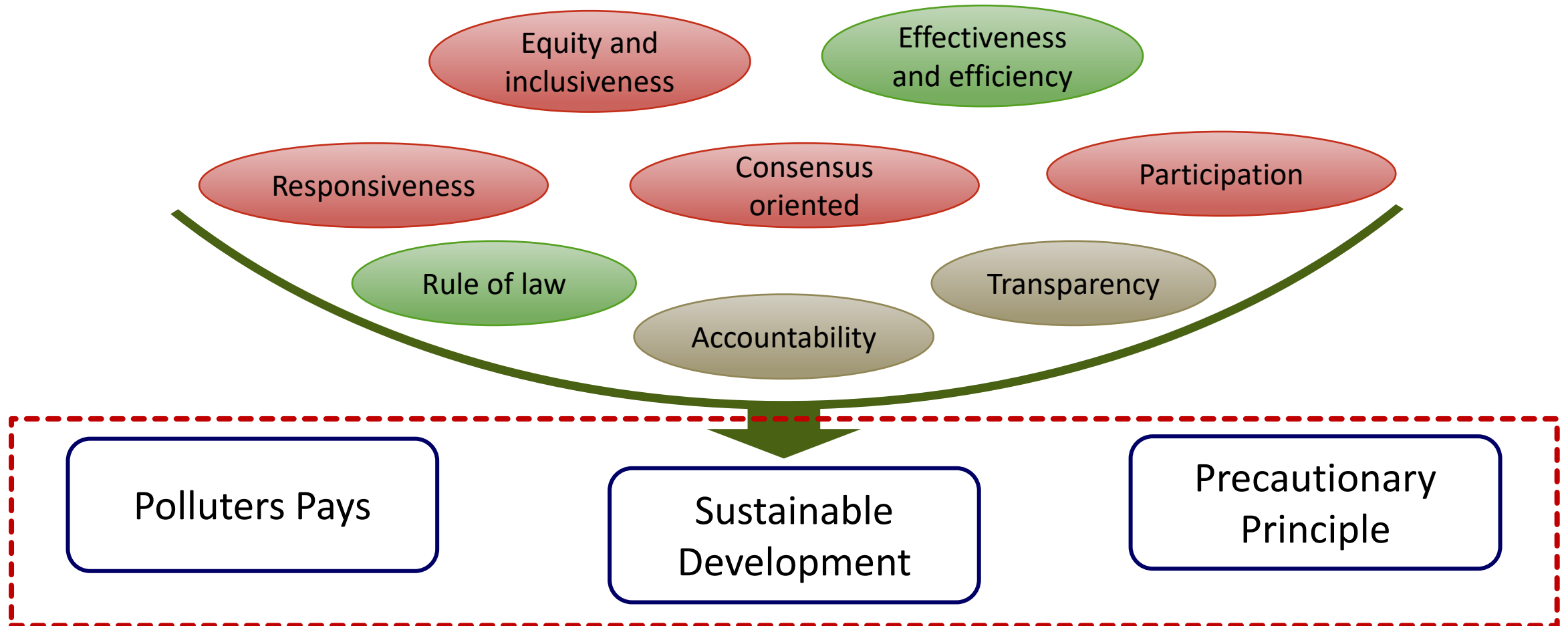
Concept of Environmental Governance

Environmental Governance is the **continuing process** of interactive **decision making** in environmental matters.



Regulate Environmental Matters

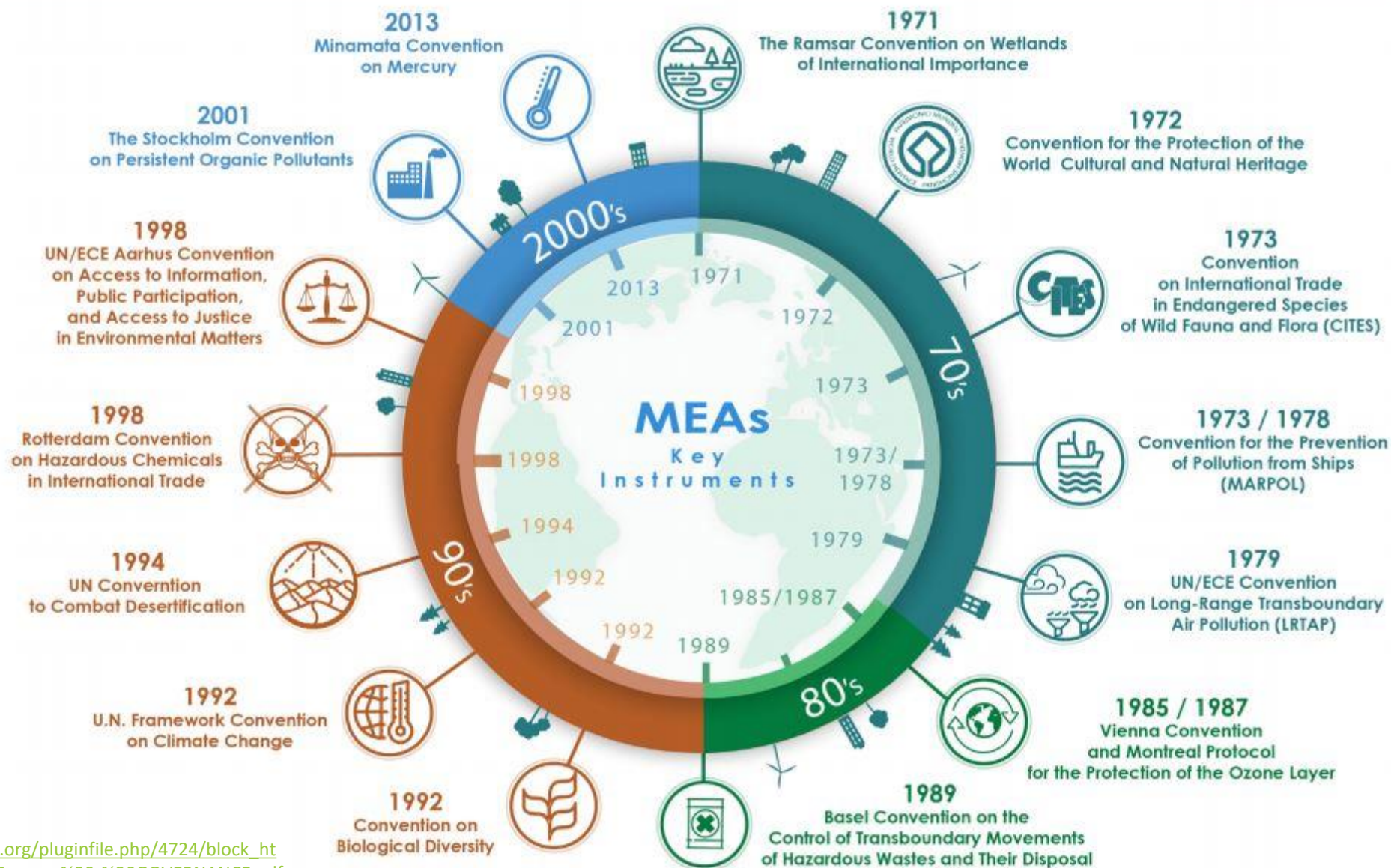
Principles of Good Environmental Governance



Role of MEA's in Environmental Governance

- ▶ **Multilateral environmental agreements** (MEAs) are international legal instruments that articulate international approaches to address **Global/Transboundary Environmental Challenges**.
- ▶ Since 1972, over **500 MEAs** have been adopted by various countries worldwide





MEA's and India

Resulted in the development of policies and regulations
in the country

**Montreal Protocol (on Ozone
Depleting Substances), 1987**

The Ozone Depleting Substances
(Control & Regulation) Rules

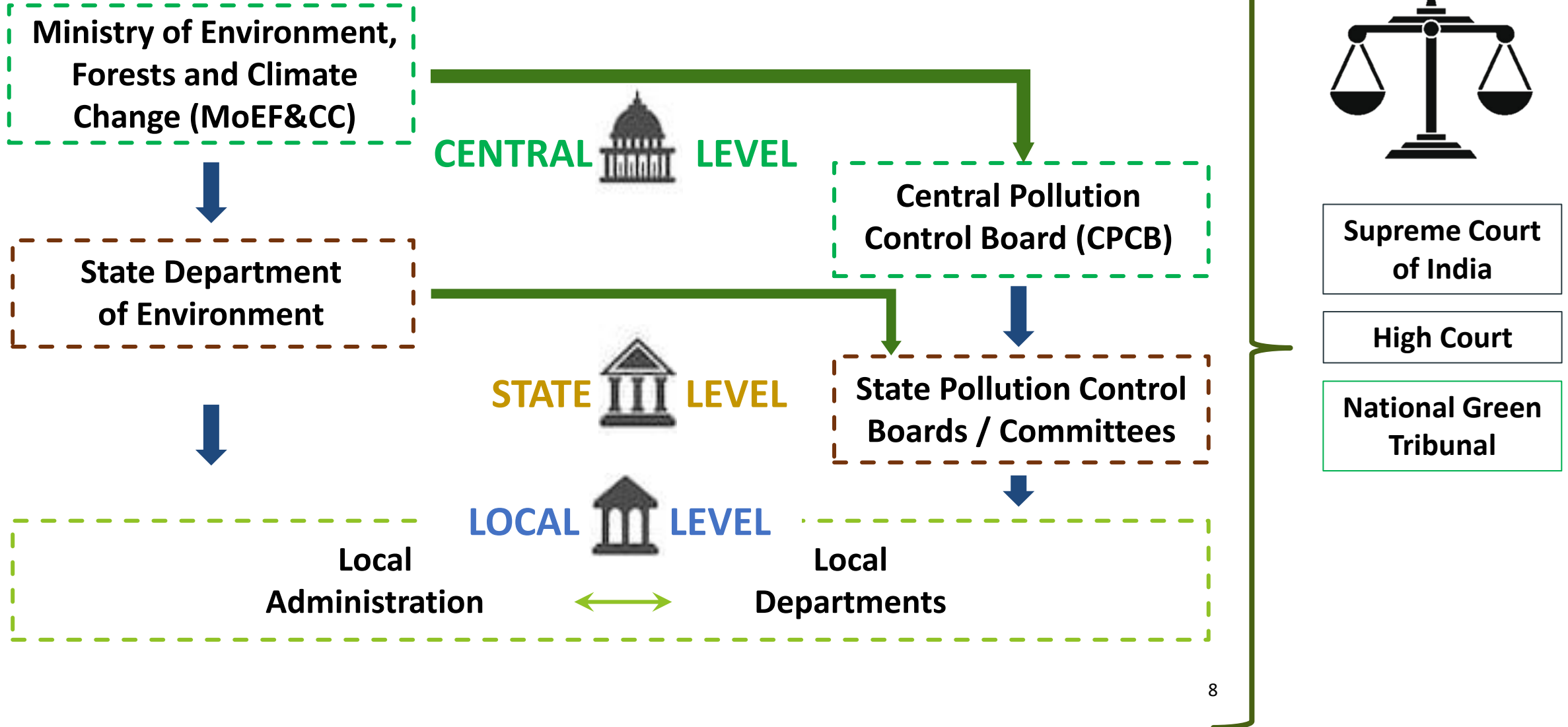
**Basel Convention on the Control of
Transboundary Movement of
Hazardous Waste and their Disposal,
1989**

Hazardous Wastes (Management and
Handling) Rules

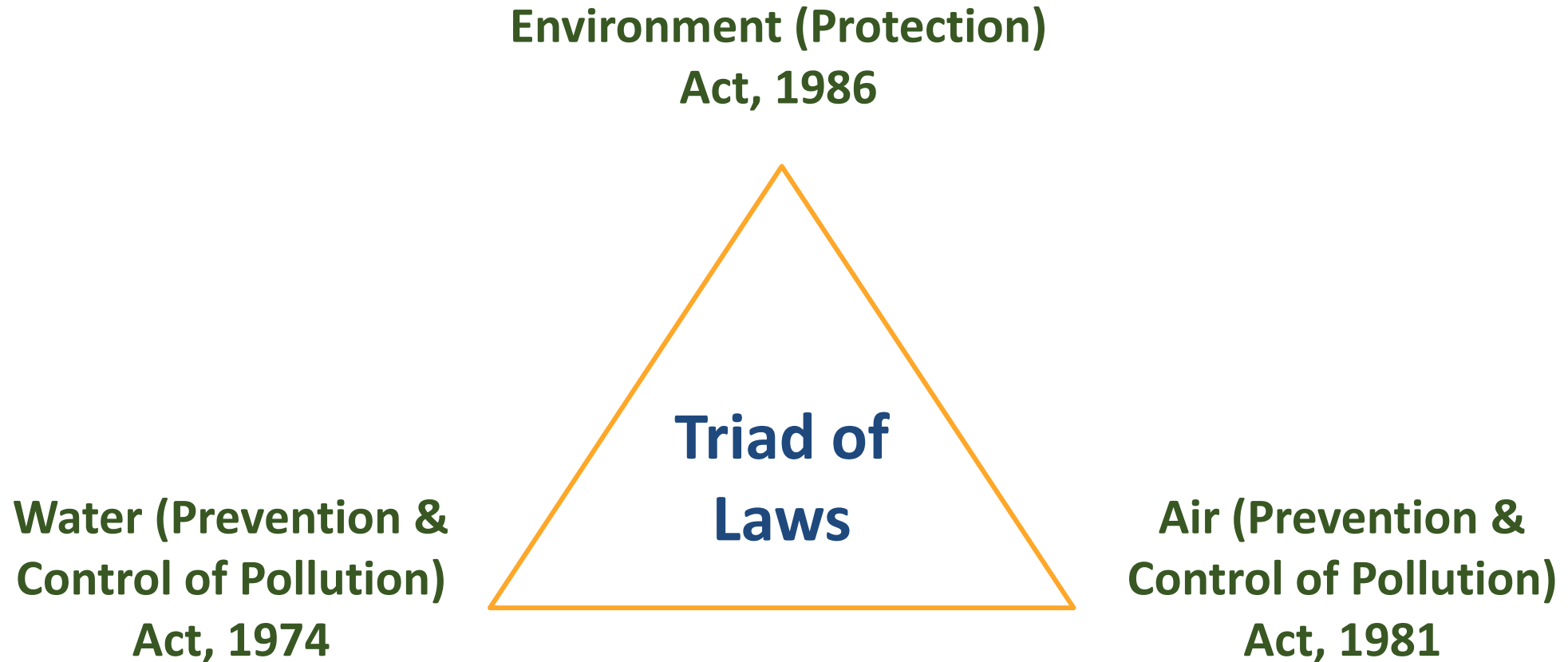
**United Nations Framework
Convention on Climate Change
(UNFCCC), 1992**

National Environmental Policy
National Action Plan on Climate Change

Institutional Mechanism



Triad of Regulations



The Water (Prevention and Control of Pollution) Act, 1974 & Rules, 1975



Introduced in 1974 as the **first legal measure** for water pollution control



Drafted in reaction to the **Stockholm Conference 1972**



Provides for the **prevention and control of water pollution**



Standards for effluents as per **designated use of receiving environment**



Institutionalized regulatory institutions: **Pollution Control Board** at the Centre and in the States

Water Act

- ▶ control of pollution through a permit or “consent administration” procedure.
- ▶ Discharge of trade effluents/sewage into water bodies only allowed by obtaining the consent of the State Board.
- ▶ “Trade effluent includes any liquid, gaseous or solid substance which is discharged from any premises used for carrying on any “Industry, operation or process, or treatment and disposal system” other than domestic sewage.
- ▶ “Sewage effluent” means effluent from any sewerage system or sewage disposal works.
- ▶ Outlet Conditions: Proper channel, Provisions for sampling, Installation of flow meter/ V-notch, Automatic Monitoring Devices (optional), Discharge to river through diffuser
- ▶ Penalties for non-compliance may range from: imprisonment 1.5 - 6 years with fine.
- ▶ In case the failure continues, with an additional fine which may extend to five thousand rupees for every day during which such failure continues after the conviction for the first such failure.

The Air (Prevention and Control of Pollution) Act, 1981 & Rules, 1982



Introduced in 1981 as the **first legal measure** for air pollution control



Drafted in reaction to the **Stockholm Conference 1972**



Provides for the **prevention, control and abatement of air pollution**



State Board declares **air pollution control areas**



Institutionalized regulatory institutions: **Pollution Control Board** at the Centre and in the State

Air Act

- ▶ SPCBs can set up State Air Laboratories, either as a new establishment or by declaring an existing lab as a State Air Lab. These labs have the authority to test the air samples and air quality procedures as described by the standards, for the SPCBs of that state in their areas.
- ▶ Officers of the Pollution Control Board have the power to take samples from any chimney, duct, etc. for testing and seeing whether the emissions are within prescribed standards or not.
- ▶ failure to comply with the rules of Section 21 and 22 will result in punishment that is a minimum of one year and 6 months, but extendable up to 6 years with fine.
- ▶ Section 21 states that no person or entity shall establish an industry without prior permission from the Boards in an air pollution control area.
- ▶ Section 22 states that no person or industry shall emit air pollutants above the standards set by the Pollution Control Boards. Under this, the Board can even approach a court to gain a restraining order on the industry that fails to meet its standards.

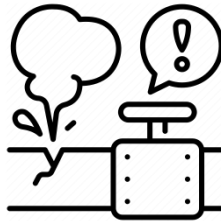
The Environmental Protection Act , 1986



Came into force
on **19 November
1986**



“Umbrella”
legislation



Drafted in the
wake of **Bhopal
Gas Tragedy, 1984**



Provides for the
**protection and
improvement** of
environment



Various **Rules,
Notifications &
Authorities** are
formulated
under the Act

Threefold objective:

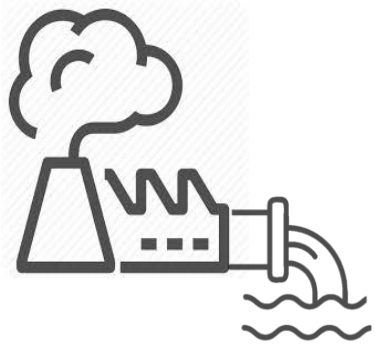
- 1) Protection of the environment
- 2) Improvement of environment
- 3) Prevention of hazards to human beings, other living creatures, plants and property¹⁴

Related Rules under Environmental Protection Act , 1986

- The Manufacture, Storage and Import of **Hazardous Chemical** Rules, 1989
- The **Noise** Pollution (Control & Regulation) Rules, 2000
- The **Ozone** Depleting Substances (Control & Regulation) Rules, 2000
- **Batteries** (Management & Handling) Rules, 2001
- The **Wetland** (Conservation & Management) Rules, 2010
- **Environmental Impact Assessment** 2006 (Notification)
- Utilization of **Fly ash** from Thermal Power Plants, 2007 (Notification)
- **Coastal Regulation Zone**, 2011 (Notification)
- **Hazardous Wastes** (Management, Handling & Transboundary Movement) Rules, 2016
- **Bio-Medical Waste** (Management & Handling) Rules, 2016
- **Municipal Solid Waste Management** (Management & Handling) Rules, 2016
- **E-Waste** Management Rules, 2016
- **Construction & Demolition** Waste Management Rules, 2016
- **Plastic Waste** (Management & Handling) Rules, 2016

Environmental Protection Rules, 1986

Prescribes detailed procedures and requirements on:



Industry / Operation /
Process specific emission
or discharge standards



Prohibitions and restrictions on
location of industries /
processes / operations



Prohibition and restriction on
the handling of hazardous
substances



Sample collection and
analysis



Submission of Environmental
statement / audit report (Form-V)

Ensuring Compliance With Regulations

Environmental Impact Assessment, 2006 (Notification)



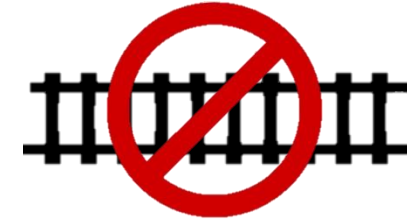
Approximately
40 Sectors
including
Manufacturing,
Metal Works,
etc.



Required for
development of
new projects and
**expansion/
modernization** of
existing projects



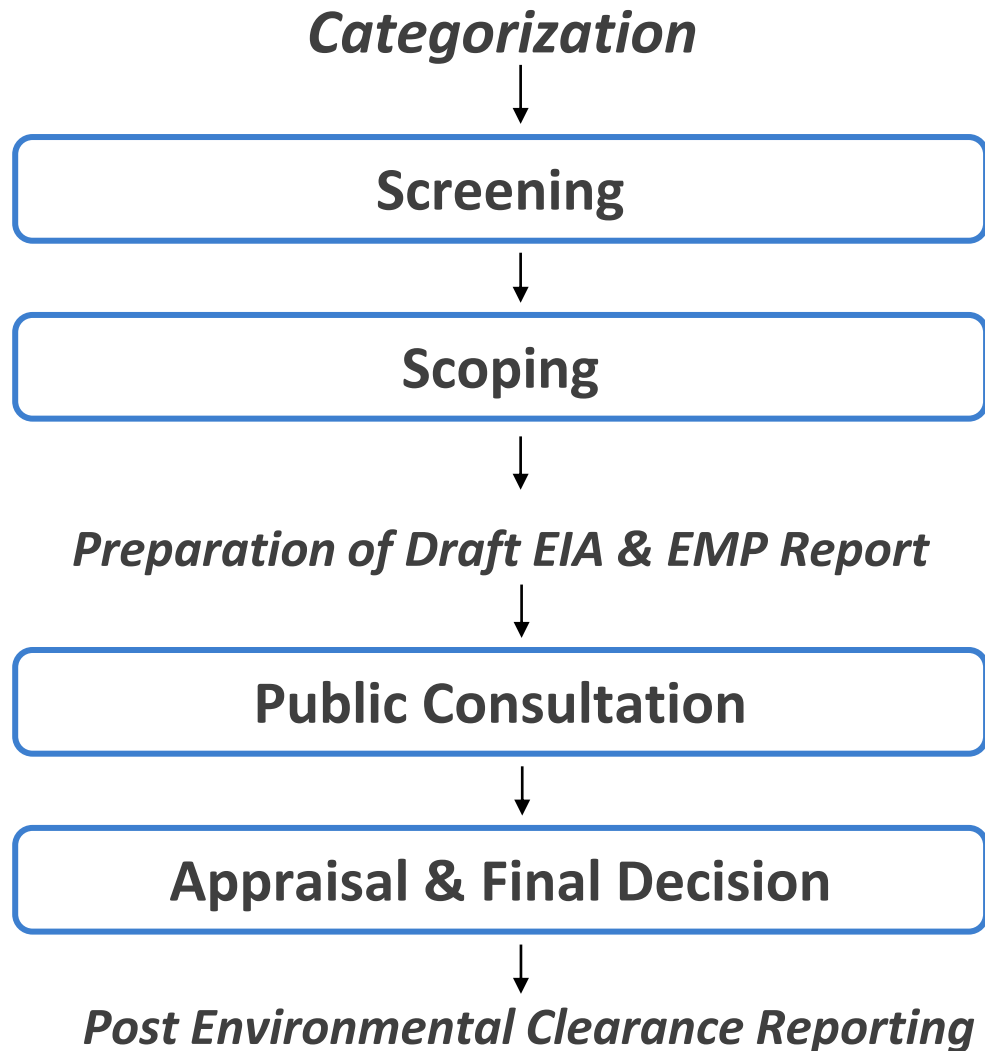
Clearance MoEF&CC at
Centre for **Category A**
projects; SEIAA for
Category B projects



Construction of **Railway
Tracks** not included.
Applicable to Industries
under Indian Railways

Draft **EIA Notification 2020** proposed to amend existing notification

Stages in EC Process



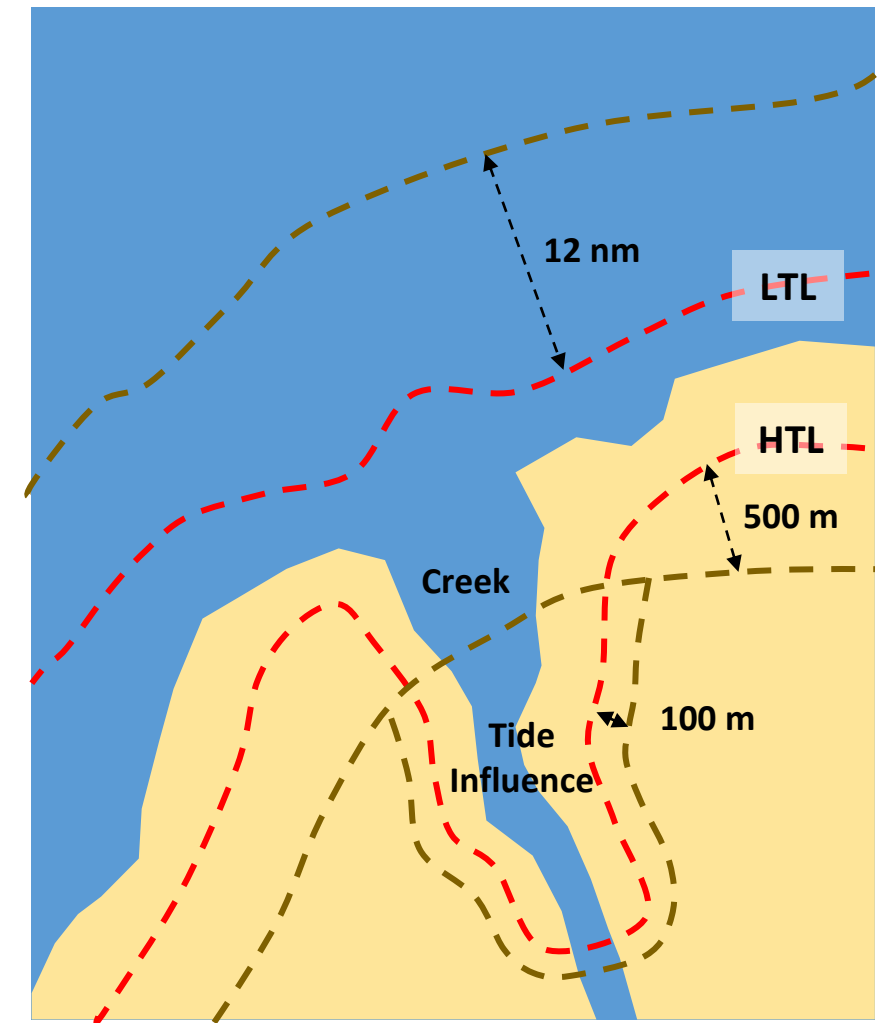
Minimum Time:

- **255 Days** - Category A & Category B1 (requiring Public Hearing)
- **210 Days** - Category B1 projects (without Public Hearing)
- **180 Days** - Category B2 projects

Mandatory submission of **Half-yearly compliance reports** in respect to the stipulated prior environmental clearance terms

Coastal Regulation Zone Notification, 2019

- ▶ CRZ is land area up to **500m** in the landward zone from the High Tide Line (HTL)
- ▶ Includes coastal stretches of **seas, bays, estuaries, creeks, rivers and backwaters** which are influenced by tidal action
- ▶ Classified into 5 zones:
 - CRZ I (A&B)** – Ecologically Sensitive Areas
 - CRZ II** – Developed Land Areas
 - CRZ III (A & B)** – Relatively undisturbed land areas (e.g. rural areas)
 - CRZ IV (A & B)** – 12NM into sea and inside tidal bodies upto 5 PPT
 - NDZ** – 50m from HTL in CRZ III A, 200m from HTL in CRZ III B



Approvals obtained as per State/ UT specific **coastal zone management plans (CZMP)**

Coastal Regulation Zone Notification 2019

CRZ-I and CRZ-IV	MoEF&CC based on the recommendation of the concerned State Coastal Zone Management Authority (SCZMA)
CRZ-II and CRZ-III	State Coastal Zone Management Authority (SCZMA)
Projects attracting provisions of EIA Notification, 2006 SEIAA or the MoEF&CC with recommendations from SCZMA	
Building or construction projects not attracting EIA State or Union territory Planning Authorities with recommendations from SCZMA	



Index

- CRZ I A:** Eco-sensitive areas
- CRZ I B:** Inter-tidal areas
- CRZ II:** Areas which have been developed up to or close to the shore
- CRZ III A:** CRZ-III areas, where the population density is more than 2,161 per sq km as per 2011 Census
- CRZ III B:** Areas with population density of less than 2,161 per sq km, as per 2011 Census
- CRZ IV A:** 12 nautical miles from the Low Tide Line towards the sea
- CRZ IV B:** Tidal influenced waterbodies
- NDZ:** 50 metres from High Tide Line in CRZ III A areas, 200 m from HTL in CRZ-III B areas

Forest Conservation Act, 1980

Project requires a Forest Clearance for diversion of forest land for non-forest use

- **In-principle Approval**
- **Final Approval**



Diversion of
forest lands **only**
for **site specific**
use



Non site-specific
projects
disallowed



Issuing authority - Central
Government (MoEF&CC) with
approval from Forest
Department, and State
Government



Clearance granted
within **200 days**

Applicable to **all railway projects** routed through forest land including gauge
conversion and electrification of existing lines

Wildlife Protection Act, 1972

Sec 29 & 35 - permit granted by the 'Chief Wildlife Warden'



Wildlife protection with a view to ensuring **ecological and environmental security** of the country



Projects within **protected areas and eco-sensitive zones** should comply with the provisions of the Act



Clearance from the **National Board for Wildlife (NBWL)** post recommendation of **State Board for Wildlife (SBWL)**

Applicable to **all railway projects** routed through protected areas and eco-sensitive zones

Consent to Establish

- ▶ Consent to Establish (NOC) to be obtained before starting activities at the site

Granted by SPCB to a project / industry/ activity

Red, Orange & Green Category

Prior to establishing / construction

The Air Act, 1981

Air Emissions & Located in Air Pollution Control Area

**The Water Act,
1974**

Discharge of Trade Effluent or Sewage

**Imposes air/water
quality standards to
be complied**

**Specifies reporting to
State Pollution
Control Board**

**Issued subject to
Environmental
Clearance**

Consent to Operate

- Consent to Operate (NOC) to be obtained before starting actual production

Granted by SPCB to a project / industry/ activity

Red, Orange & Green Category



Post construction & prior to operation

The Air Act, 1981

Air Emissions & Located in Air Pollution Control Area

The Water Act,
1974

Discharge of Trade Effluent or Sewage

Effluent and
Emission **Discharge**
Limits

Air & Wastewater
Pollution Control
Equipment

Water **source** &
usage quantity

Approved **fuel**

Monitoring and Reporting Requirements

Indian Railways Major Units



Locomotive Works



Workshops



Loco Shed



**Railway Station and
Sidings**



Administrative Building



Hospitals

Images (l-r):

<https://www.railmitra.com/blog/indian-railways-top-6-modern-locomotive-factories-in-india>; <http://www.railnews.in/mumbais-rael-railway-carriage-workshop-takes-the-green-road/>; <https://www.deccanherald.com/national/indian-railways-to-book-tickets-from-counters-836510.html>; https://www.justdial.com/Delhi/Rail-Bhavan-New-Delhi/011PXX11-XX11-180719213653-A817_BZDET; https://wr.indianrailways.gov.in/view_section.jsp?id=0,1,684

List out Key Applicable Environmental Regulations in

Room 1: planning phase

Room 2: Construction phase

Room 3: Operation phase

Scenario : Construction / Expansion of Railway Link or Permanent Way

Assumptions:

Project passes through

Area classified as a Forest under Forest Conservation Act, 1980

Protected areas / Eco-Sensitive Zone, classified under Wildlife (Protection) Act, 1972

Coastal area classified as per the Coastal Regulation Zone Notification, 2019

List out Key Applicable Environmental Regulations in

Room 4: planning phase

Room 5: Construction phase

Room 6: Operation phase

Scenario : Construction, Operation & Maintenance of Railway Workshop within city boundaries (no special assumption)

Key Applicable Environmental Regulations



Planning Phase

- Forest Conservation Act, 1980 & Forest Conservation Rules, 2003
- Wildlife (Protection) Act, 1972
- CRZ Notification 2019



Construction Phase

- Hazardous Waste Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016
- Guidelines to regulate and control Ground Water Extraction in India, June 2019



Operation Phase

Planning Phase

Regulation	Document / Permit	Agency
Forest Conservation Act (1980) and Forest Conservation Rules (2003)	In-principle Approval & Final Approval for Diversion of forest Land for Non-forest use	MoEF&CC with approval from Forest Department, and State Government
Wildlife (Protection) Act, 1972	Clearance from the NBWL for undertaking construction activities in the Protected Area or in Eco-sensitive Zone	Standing Committee of NBWL after recommendation from SBWL
CRZ Notification 2019	CRZ Clearance for undertaking construction activities in area classified as coastal regulatory zone	MoEFCC after Recommendation from State Coastal Management Authority

Construction Phase

Regulation	Document / Permit	Agency
Water Act, 1974 & Air Act, 1981	Consent to Establish or No Objection Certificate	State Pollution Control Board
Hazardous Waste Hazardous and Other Wastes Rules, 2016	Authorization for Storage, Generation and Disposal of Hazardous Waste	State Pollution Control Board
Guidelines to regulate and control Ground Water Extraction in India, June 2019	Permission for withdrawal of ground water and NOC for construction of bore well	Central / State Ground Water Authority

Operation Phase

- ▶ None specific.

Question: List out Key Applicable Environmental Regulations in

1. planning

2. construction and

3. operation phase

Scenario : Construction, Operation & Maintenance of Railway Workshop within city boundaries (no special assumption)

Key Applicable Environmental Regulations



Planning Phase

- Environment Impact Assessment (EIA) Notification, 2006
- CTE



Construction Phase

- Water Act, 1974 & Air Act, 1981
- Hazardous and Other Wastes Rules, 2016
- Guidelines to regulate and control Ground Water Extraction in India, June 2019
- Construction & Demolition Waste Rules, 2016



Operation Phase

- Water Act, 1974 & Air Act, 1981
- Guidelines to regulate and control Ground Water Extraction in India, June 2019
- Hazardous Waste Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016
- Biomedical Waste Rules, 2016

Planning Phase

Regulation	Document / Permit	Agency
Environment Impact Assessment (EIA) Notification, 2006	Prior Environmental Clearance	Ministry of Environment Forest & Climate Change or State Environment Impact Assessment Authority

Construction Phase

Regulation	Document / Permit	Agency
Water Act, 1974 & Air Act, 1981	Consent to Establish under Red Category	State Pollution Control Board
Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016	Authorisation for Storage, Generation and Disposal of Hazardous Waste	State Pollution Control Board
Construction & Demolition Waste Management Rules, 2016	Approved Waste Management Plan for Disposal of C&D Waste	Local Authority
Guidelines to regulate and control Ground Water Extraction in India, June 2019	Permission for withdrawal of ground water and NOC for construction of bore well	Central / State Ground Water Authority

Operation Phase

Regulation	Document / Permit	Agency
Water Act, 1974 & Air Act, 1981	Consent to Operate under Red Category	State Pollution Control Board
Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016	Authorisation for Storage, Generation and Disposal of Hazardous Waste	State Pollution Control Board
Biomedical Waste Management Rules, 2016	Authorisation for handling of Bio-Medical Waste	State Pollution Control Board
Guidelines to regulate and control Ground Water Extraction in India, June 2019	Permission for withdrawal of ground water and NOC for construction of bore well	Central / State Ground Water Authority

Other Important Regulations (Across all stages)

- ▶ **Municipal Solid Waste Management** (Management & Handling) Rules, 2016
- ▶ **E-Waste** Management Rules, 2016
- ▶ **Plastic Waste** (Management & Handling) Rules, 2016
- ▶ The Manufacture, Storage and Import of **Hazardous Chemical** Rules, 1989
- ▶ Environmental Protection Second Amendment Rules 2002 (**DG Set**) & 2004
- ▶ **Batteries** (Management & Handling) Rules, 2001
- ▶ **Petroleum** Act 1934 and Rules, 2002

Documents required for Consent To Establish (NOC)

Application for Consent to establish (NOC) for Red/Orange Category – Fresh Case

1. Site Plan/Location Plan of the industry.
2. Partnership Deed/Memorandum of Article of Association /Proprietorship certificate/ Resolution of Board of Director/ partners regarding authorized signatory.
3. Land documents such as Registration deed/ Jamabandi/ Rent deed/ lease deed indicating details of the property.
4. Any one of the following documents regarding designation of area/compliance of specific guidelines
 - a. Allotment letter of the Designated Authority, if the site of the project is located in the designated Industrial Area/ Industrial Estate/ Focal Point.
Or
 - b. Undertaking to the effect that the proposed site of the project / industry is located in the designated Industrial zone/ area of the notified/ draft Master Plan in which the establishment of such industry/ project is permissible. The undertaking shall clearly indicate the revenue entries I.e. Hadbast Number, khewat /khatauni number and Khasra numbers.
Or
 - c. Certificate of Revenue Authorities (DC/ADC/SDM) indicating the distance of proposed site of industry from the MC Limits/Phirni / Lallakir of the nearest village, in case, the industry is to be established at a site other than the site in the industrial area / industrial estate /industrial zone of the draft master plan / industrial zone of the notified master plan.
Or
 - d. For industry specific guidelines, certificates/ documents as mentioned in the said guidelines (In case of Rice Sheller/Saila Plant/Stone Crusher/Brick Kiln/Hot Mix plant/Cement Grinding units etc.)
5. Brief Project Report with Manufacturing Process Flow sheet .
6. Compliance report of pervious consent to operate condition in annotated form **(in case of modernization/expansion only)**

Note: Application shall be accompanied by NOC Fee as per total project cost.

Application for Consent to establish (NOC) for Green Category - Fresh Case

1. Site Plan/Location Plan of the industry.
2. Partnership Deed/Memorandum of Article of Association /Proprietorship certificate/ Resolution of Board of Director/ partners regarding authorized signatory.
3. Land documents such as Registration deed/ Jamabandi/ Rent deed/ lease deed indicating details of the property.

4. Documents regarding designation of area/compliance of specific guidelines (Any one of the following:
 - a. Allotment letter of the Designated Authority, if the site of the project is located in the designated Industrial Area/ Industrial Estate/ Focal Point.
Or
 - b. Undertaking to the effect that the proposed site of the project / industry is located in the designated Industrial zone/ area of the notified/ draft Master Plan in which the establishment of such industry/ project is permissible. The undertaking shall clearly indicate the revenue entries I.e. Hadbast Number, khewat /khatauni number and Khasra numbers.
Or
 - c. Certificate of Revenue Authorities (DC/ADC/SDM) indicating the distance of proposed site of industry from the MC Limits/Phirni / Lallakir of the nearest village, in case, the industry is to be established at a site other than the site in the industrial area / industrial estate /industrial zone of the draft master plan / industrial zone of the notified master plan.
5. Brief Project Report with Manufacturing Process Flow sheet.
6. Compliance report of pervious consent to operate condition in annotated form **(in case of modernization/expansion only)**

Note: Application shall be accompanied by NOC Fee as per total project cost.

Application for Extension in validity of Consent to Establish (NOC) for Red/Orange/Green Category.

1. Request letter giving the reason for non-completion of project in stipulated time along with the status of installation of plant and machinery/pollution control devices.

Note:

1. Application shall be accompanied by 50% of NOC Fee per year as per total project cost
2. In case the NOC was not granted online, you requested to submit a copy NOC granted, copy of Project Report and Feasibility Report submitted at the time of obtaining NOC.

Validity period: Example

Consent to Establish validity period shall be as follows:

Projects	Validity Period
For Micro and Small scale Green category projects	Combined CTE & CTO issued for period of 15 years after collecting 5 years fees
For all other projects	CTE is issued for 5 Years (1 year fee)

Consent to Operate validity period shall be as follows:

Projects	Validity Period
Red Category (Large, Medium, Small & Micro scale)	5 years (5 year fees)
Orange Category (Large, Medium, & Small scale)	10 years (10 year fees)
Orange Category (Micro scale)	10 years (5 year fees)
Green Category (Large scale)	15 years (15 year fees)
Green Category (Medium scale)	15 Years (10 year fees)
Green Category (Micro & Small scale)	Combined CTE & CTO issued for period of 15 years after collecting 5 years fees

Consent Renewal validity period shall be as follows:

Projects	Validity Period
Red Category (Large, Medium, Small & Micro scale)	5 years (5 year fees)
Orange Category (Large, Medium, & Small scale)	10 years (10 year fees)
Orange Category (Micro scale)	10 years (5 year fees)
Green Category (Large scale)	15 Years (15 year fees)
Green Category (Medium scale)	15 Years (10 year fees)
Green Category (Micro & Small scale)	15 Years (5 year fees)

Thank you