

Industrial Air Pollution: Enforcement Experience in India

Ajay Deshpande

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Navi Mumbai

Constitution Of India And Environment

- A fundamental 'Right to life' is guaranteed to all persons
 - **Article 21**
 - No person shall be deprived of his life or personal liberty except according to procedure established by law
 - *The scope of 'Right to Life' expanded by higher judiciary to include the 'right to clean and pollution free environment'*
- Directive Principles of the State Policy
 - **Article 48 A**
 - State shall endeavour to protect and improve environment and to safeguard the forests and wildlife of the country
- Fundamental Duties of Citizens
 - **Article 51 A (g)**
 - To protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures

Principles of Environmental Governance

- **Doctrine of Sustainable development:**
 - Intra-generational responsibility
 - Public trust
- **Principles of sustainable development:**
 - Polluter pays
 - Precautionary principle
 - Onus of proof (to show that the development is environmentally benign)

Why?

- Environment is an Evolving science
 - New pollutants, their impacts, co-relation are being discovered..
- Prediction of impacts involved
 - Many of them irreversible
 - Hence, prevention (protection) is priority than control
- Involves uncertainty
 - To err on side of environment
 - Environment is party in absentia in any decision making process
- Of late, there have been calls among decision makers, interest groups, citizens, and scientists alike for more science-based environmental policy and decision making.
- The assumption is that including scientists and scientific information will improve the quality of complex policy decisions and regulatory decisions.

By Whom?

- Regulators
- Or
- Industry
- Or
- Associations
- Or
- NGOs

Environmental Governance in India

1970's:

Regulations:
having
specialized
regulation on
environmental
protection

1985-2000:

Umbrella
legislation and
rules covering
various
environmental
issues

2000's:

Focus on Env't
monitoring,
action plan,
enforcement
and compliance

2010's:

Remediation
and
restoration,
environmental
justice delivery

Driving factors in Enforcement

- Act is mainly enforcing mechanism
- Disincentives for non-compliance (?)
- Need incentives for compliance
- Role of Regulator is highly complex needing multidisciplinary expertise
- No provisions of fine or spot penalties
- Long legal battles
- *Seek execution thereof:* very ambitious
- R&D, public disclosures (?)

Enforcement Issues

- Multiple sources- industrial areas
- Expanding definition of Air Pollution
- New and evolving air pollutants
- Correlation of TPM, PM10 and PM2.5
- Reliability and credibility of CEMS:
- Whole to part: Ambient air quality compliance through industrial air emission control
- Consistent, adequate and speedy actions by SPCBs

Regulatory Framework

- Air (prevention and Control of) Pollution Act, 1981
- Environmental (Protection) Act, 1986
- *Both these acts of parliament are under special provision of constitution. Article 254 : Giving effect to international agreements*

Central Board

16. Functions of Central Board.

(1) Subject to the provisions of this Act, and without prejudice to the performance, of its functions under the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974), the main functions of the Central Board shall be to improve the quality of air and to prevent, control or abate air pollution in the country.

(2) In particular and without prejudice to the generality of the foregoing functions, the Central Board may-

(a) advise the Central Government on any matter concerning the improvement of the quality of air and the prevention, control or abatement of air pollution;

17. Functions of State Boards

(a) to plan a comprehensive programme for the prevention, control or abatement of air pollution and to secure the execution thereof;

(b) to advise the State Government on any matter concerning the prevention, control or abatement of air pollution;

(c) to collect and disseminate information relating to air pollution;

(d) to collaborate with the Central Board in organising the training of persons engaged or to be engaged in programmes relating to prevention, control or abatement of air pollution and to organise mass-education programme relating thereto;

(e) to inspect, at all reasonable times, any control equipment, industrial plant or manufacturing process and to give, by order, such directions to such persons as it may consider necessary to take steps for the prevention, control or abatement of air pollution;

(f) to inspect air pollution control areas at such intervals as it may think necessary, assess the quality of air therein and take steps for the prevention, control or abatement of air pollution in such areas;

(g) to lay down, in consultation with the Central Board and having regard to the standards for the quality of air laid down by the Central Board, standards for emission of air pollutants into the atmosphere from industrial plants and automobiles or for the discharge of any air pollutant into the atmosphere from any other source whatsoever not being a ship or an aircraft:

Provided that different standards for emission may be laid down under this clause for different industrial plants having regard to the quantity and composition of emission of air pollutants into the atmosphere from such industrial plants;

(h) to advise the State Government with respect to the suitability of any premises or location for carrying on any industry which is likely to cause air pollution;

(i) to Perform such other functions as may be prescribed or as may, from time to time, be entrusted to it by the Central Board or the State Government;

(j) to do such other things and to perform such other acts as it may think necessary for the proper discharge of its functions and generally for the purpose of carrying into effect the purposes of this Act.

21. Restrictions on use of certain industrial plants.

(5) Every person to whom consent has been granted by the State Board under sub-section (4), shall comply with the following conditions, namely -

(i) the control equipment of such specifications as the State Board may approve in this behalf shall be installed and operated in the premises where the industry is carried on or proposed to be carried on;

(ii) the existing control equipment, if any, shall be altered or replaced in accordance with the directions of the State Board;

(iii) the control equipment referred to in clause (i) or clause (ii) shall be kept at all times in good running condition;

(iv) chimney, wherever necessary, of such specifications as the State Board may approve in this behalf shall be erected or re-erected in such premises; .and

(v) such other conditions as the State Board, may specify in this behalf,

(6) If due to any technological improvement or otherwise the State Board is of opinion that all or any of the conditions referred to in sub-section (5) require or requires variation (including the change of any control equipment, either in whole or in part), the State Board shall, after giving the person to whom consent has been granted an opportunity of being heard, vary all or any of such conditions and thereupon such person shall be bound to comply with the conditions as so varied.

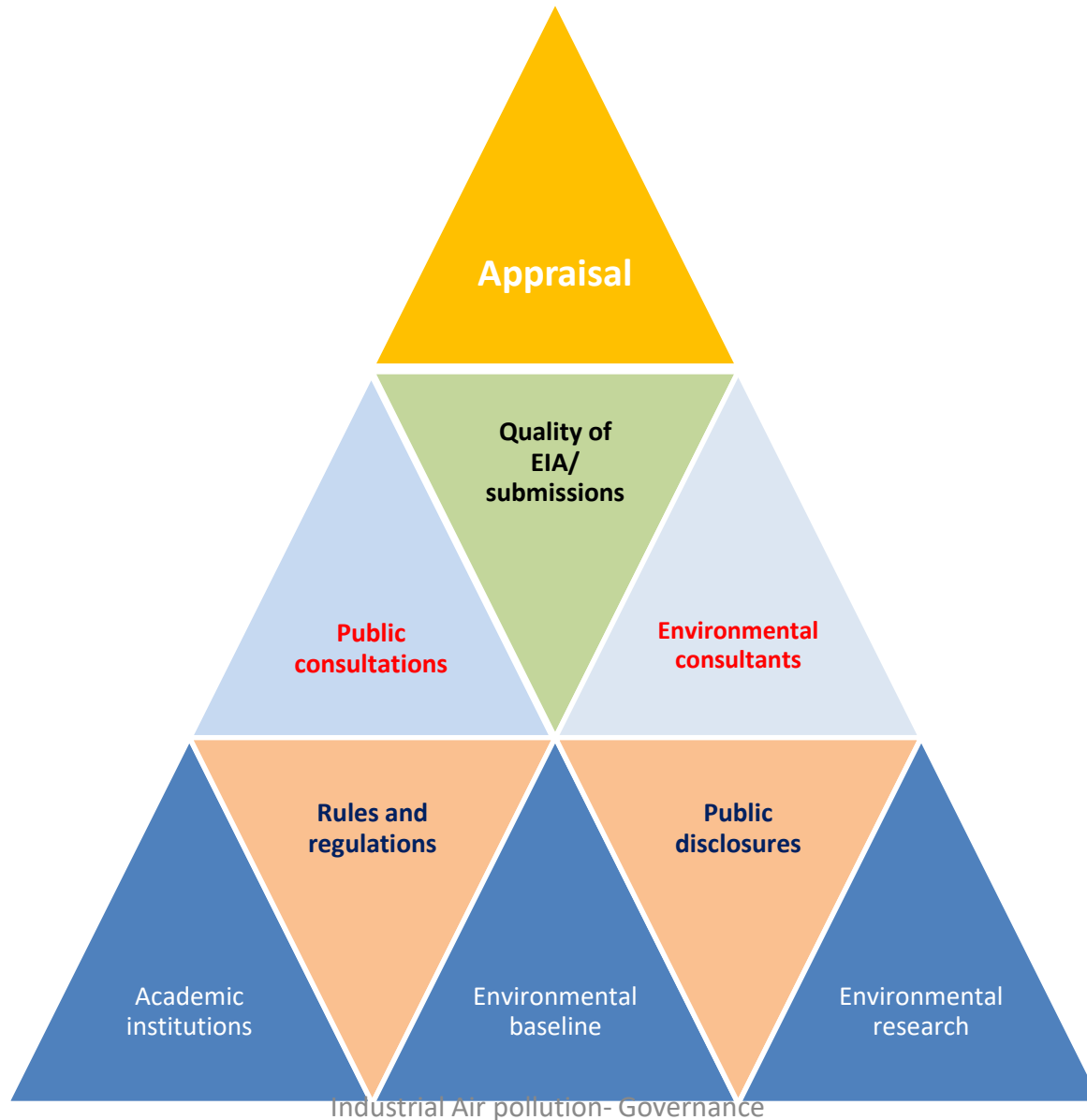
23. Furnishing, of information to State Board

(1) Where in any area the emission of any air pollutant into the atmosphere in excess of the standards laid down by the State Board occurs or is apprehended to occur due to accident or other unforeseen act or event, the person in charge of the premises from where which emission occurs or is apprehended to occur shall forthwith intimate the fact of such occurrence or the apprehension of such occurrence to the State Board and to such authorities or agencies as may be prescribed.

(2) On receipt of information with respect to the fact or the apprehension of any occurrence of the nature referred to in sub-section (1), whether through intimation under that sub-section or otherwise, the State Board and the authorities or agencies shall, as early as practicable, cause such remedial measure to be taken as are necessary to mitigate the emission of such air pollutants.

(3) Expenses, if any, incurred by the State Board, authority or agency with respect to the remedial measures referred to in sub-section (2) together with interest ("to such reasonable rate, as the State Government may, by order, fix) from the date when a demand for the expenses is made until it is paid, may be recovered by that Board, authority or agency from the person concerned, as arrears of land revenue, or of public demand.

Permit Process: Attributes



Emerging Points

- Many actions have been taken.
(Consistency and transparency)
- Desired results not achieved.
- Are measurements adequate/proper?
- Are actions based on appropriate scientific studies?
- Do we Need to change our approach of enforcement?
- What new should be done?

What are International Benchmarks?

- Persons affected must get involved in process of sanctioning
- Regulators need to use wide range of sanctions available with them with clear protocol
- Regulators shall have shall have enforcement protocol and policy to ensure consistent and adequate response
- Annual report of outcomes of various sanctioning actions
- Sanctions: targeted, inclusive, Speedy, deterrent, proportionate, consistent, accountable and effective

Principles of Enforcements

- No inspection without a reason, authorization and record
- Business should not have to give unnecessary information nor give some piece of information twice
- Regulators should provide authoritative and accessible advise- early, easily and cheaply
- Few businesses that persistently break regulators should be identified quickly and must face proportionate, meaningful and deterrent sanctions

A Multi-functional Regulator



Innovative Regulations

- **Environmental standards:**
 - Regulator stipulate stringent standard and/or conditions forcing industry to improve and out-of-box thinking
- **Economic incentives:**
 - Has financial benefits for industry, self initiatives, resource consumption targets
- **Subsidies:**
 - Direct or indirect subsidies, India- Cess rebate
- **Communication**
 - Public disclosure of performance data, targets, action plan, interaction with society, local concerns
- **Covenants**
 - Industry-regulators jointly prepare a road map, taking technology, success stories, best practices into consideration

Enforcement Strategies

- Command and control
- Determine and Direct : *science based: areas of improvement identified and directions issues, harnessing the inventive power of industry to determine solution. But, considering non-compliance on a regular basis, do we require a new paradigm?*

Specify and Direct

Which is strictly within the framework of Air Act. Are we technically and scientifically ready for this?

- More focus and emphasis on research in air pollution
- Public disclosures
- Shift from emission monitoring to outcome monitoring
- Inform and educate: support to comply: encourage to be efficient:

Thanks