

Innovative Instruments for Environmental Regulation - Gujarat Experience

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Policy and Planning – Innovative Instruments

- **Quality improvement :**
 - Manuals for uniform working and precision :
 - Technical manual
 - Legal manual
 - Scientific manual
 - Administration manual
 - Very useful in quick, consistent & uniform decision making
- ISO 9001 – All offices of the GPCB (**improved quality**)
- ISO 14001 – Head Office : Next target is all RO

e-Governance

XGN-SOFTWARE (EXTENDED GREEN NODE)

- Online receipt, processing & decision-making with SMS alerts
- Quick and sound decision making
- Transparency in the process
- Effective communication with stakeholders
- Regular and effective monitoring of Large data base development and its easy retrieval & analysis
- Better environment regulation of sources and sinks
- Increase in water-cess income of the board

Environmental Audit

- Implemented as an outcome of the judgment of Hon. High Court of Gujarat
- Identified industries are required to carry out audit through third party auditors as per the scheme
- NEERI-Nagpur has evaluated the scheme for its implementation and out come
- NEERI in its report has suggested that other states shall also replicate the scheme for better environment management
- J-pal is conducting research for improvement

Monitoring & Complaint Redressal

- Concept of Regional Office and Vigilance offices – effectiveness and speedy disposal of complaints
- **Whistle Blower Scheme-** In which the Complainer is rewarded for providing genuine information / helping Board in pollution prevention
- Regular **meetings with NGO** and Industries Associations for redressal of their complaints / issues
- **Third party monitoring** through credible institutes

Critically and Severely Polluted Clusters

- **Opportunity** for improvement and investment
- **Action Plans** for all critically polluted areas – prepared and put on website
- All severely polluted areas – **next target**
- Implementation monitoring
 - Chairman, GPCB
 - Principal Secretary, F&ED, Government
 - District level mechanism : VO, RO and Committees of Association
- Innovative instruments integrated in action plans – both strategic and technical

Compliance Monitoring

- **Inter-linking** of permissions : TOR-CTE-EC-CCA
- **Compliance of TOR in EIA** report is scrutinized prior to fixing the Public Hearing of the industry
- Compliance of the EC conditions and CTE conditions are verified during decision making process of CC&A
- **Time bound Action Plan** is asked from the unit in case of non-compliance
- Compliance of CC&A conditions is carried out during routine monitoring

PROCEDURES

- Promotions only after technical exams and computer literacy
- Adoption of Consolidated Consent and Authorization (CC&A) concept - now it is **given for the five years**
- One year additional CCA for ISO 14001 industries
- CP / CT awards winning industries are also given above benefit
- Formation of Four Zonal vigilance cells in the state for effective and prompt monitoring and complaint redressal

Common Environmental Infrastructure

- All new Chemical SEZs / industrial clusters are insisted for CETP
- Success stories of CETP for monoculture industries like :
 - Rice mills
 - Textiles
- Replication of same in Pharma, CPC green / blue sectors
- Promotion of Common waste exchange bank (Novel Spent Acid Management in Ahmedabad)
- Promotion of advance technology like plasma thermal destruction for BMW and also for industrial wastes
- CETP - management taken over by Government – Vapi and

Ankleshwar

Sectoral Solutions

- Small scale foundry industries in Ahmedabad - A success story
- Air Pollution Control from flue gas emission from Boilers of Textile Processing Houses of Narol, Ahmedabad through **Design Verification & Modification** of APCM by Technical Third Party Institutes like LDCE, NPC

Technology Adoption

- FACCO – CLRI
- Electro Oxidation
- Plasma Technology
- Cleaner Technology in manufacturing of H-Acid, VS- e.g. use of hydrogenation process in reduction to reduce Hazardous wastes generation
- Development of specific microbial culture for treatment of industrial effluent- Vapi-CETP experience
- Anaerobic Oxidation – CETP Vapi and even in textile sector

Cleaner Production / Clean Technology

- Financial incentives – strong influence in Industrial Policy 2009
- Cleaner Production Award
- Environment – Sector of Investment for PPP promotion
- Promotion of Centre of Excellence in each estate
- Emphasis on minimum use of resources and maximum recovery / reuse
- Instead of shifting the wastes from land to sea or using energy for RO and evaporation, promotion of 4R
- Specific conditions are imposed in this regard in CTE / EC

Environment Impact Assessment

- Use of EIA as a planning tool
- Integration of the Construction Projects in vicinity during EC process – Success story of ICICI, HDFC and DLF projects
- Cluster based EIA - VSK technology based small scale cement units in Kotdasangani, Rajkot - A success story
- Promotion of spray drying process in dyes manufacturing instead of salting-desalting and filtration process which leads to high TDS and disturbs the ETP / CETP functioning
- Insistence and Advice on CP techniques - while appraising project and incorporating specific conditions in EC
- Online display of compliance – OPG Power

Future Actions - Innovative Instruments

- On line receipt of EC applications and less-paper EC process
- On line selection of date of the presentation (?)
- Video conferencing instead of personal meetings (?)
- Sector specific solutions for chemical industries
- Policy for better siting of industries
- Use of advance technologies in monitoring – e.g. GIS, GPS, SCADA, etc
- Online monitoring of major polluting industries and networking of results

Future Actions - Innovative Instruments

- Capacity Building of the technical officers – intensive classroom trainings
- Creation of special pool of experts :
 - Water,
 - Air,
 - Land, etc.
- Strengthening of laboratories, Adoption of Latest Approved Technologies for Analysis
- Pilot models for treatability to educate and advise people\

Thank You