Reforms & Best Practices for Environmental Regulation

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Gandhinagar
Industrial Scenario - Gujarat

Strong presence of SSI units in the State
TOTAL – 30219
(As of 15th May, 2017)
## Innovative Mechanisms Used

<table>
<thead>
<tr>
<th>XGN – Online system e-governance</th>
<th>Common Consents &amp; Authorisation</th>
<th>Regional Office (26) &amp; Vigilance Office (4) Concept</th>
<th>Longer Consent Validity Period</th>
<th>Auto-Renewal of Consents</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Generated Provisional Orders</td>
<td>Manuals for various activities of GPCB</td>
<td>Monitoring-Innovative tools (e.g. Written Instructions)</td>
<td>Third party monitoring through academic institutes</td>
<td>Online Payment of Fees</td>
</tr>
<tr>
<td>Use of Cleaner Production / Technology Tools</td>
<td>Various Actions Plans like Air Action Plan, River Action Plan</td>
<td>Environment Audit Scheme</td>
<td>ISO and NABL Accreditation</td>
<td>Checks (Locks) in the system for efficient operation</td>
</tr>
<tr>
<td>Use of Technology</td>
<td>Usage of Common Facilities like CETP, Acid Disposal, Steam etc.</td>
<td>Co-processing of Wastes</td>
<td>Research and Development work</td>
<td>Re-engineering of Business Processes (Fast Track Renewal)</td>
</tr>
<tr>
<td>Promotion of Centre of Excellence</td>
<td>Use of Non-Conventional Sources of Energy like Wind, Solar etc. promoted / emphasized</td>
<td>Clinical Approach</td>
<td>Help Desk</td>
<td>Citizen’s Charter</td>
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</table>
E-Governance (XGN)

- Regular and effective monitoring, Transparency in the process
- Effective communication with stake holders
- Large data base development and its easy retrieval & analysis
- Better environment regulation of source and sink elements
- Quick decision making, Increase in water-cess income
- Won 6 National Awards from 2010 to 2016
- Replicated & extended to Himachal Pradesh, Uttarakhand, Madhya Pradesh, Karnataka, Goa and Andhra Pradesh
<table>
<thead>
<tr>
<th>Year</th>
<th>Modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>XGN launched on 5th June as Consent Management Tool</td>
</tr>
<tr>
<td>2009</td>
<td>Bio-Medical Waste Management System</td>
</tr>
<tr>
<td></td>
<td>e-Communication Module</td>
</tr>
<tr>
<td></td>
<td>Water Cess Module</td>
</tr>
<tr>
<td></td>
<td>Legal Module</td>
</tr>
<tr>
<td>2010</td>
<td>The Online Application Scrutiny Module</td>
</tr>
<tr>
<td></td>
<td>The Environment Auditor’s Monitoring System</td>
</tr>
<tr>
<td></td>
<td>The GEMS/MINAAR CPCB / MoEFCC related Projects Monitoring</td>
</tr>
<tr>
<td></td>
<td>The e-Returns Entry &amp; Monitoring Module</td>
</tr>
<tr>
<td></td>
<td>The EC (B1 &amp; B2 Category) Module for SEIAC Committee</td>
</tr>
<tr>
<td>2011</td>
<td>The Basic Co-Processing Waste Module</td>
</tr>
<tr>
<td></td>
<td>The Online Emission Monitoring system</td>
</tr>
<tr>
<td></td>
<td>The Inward &amp; e-Outwarding Module</td>
</tr>
<tr>
<td></td>
<td>The Common Infrastructure facilities Module</td>
</tr>
<tr>
<td></td>
<td>The Hazardous Waste Monitoring System</td>
</tr>
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</table>
XGN Development over the years

2012
- The RTGS/NEFT Payment system & All Payments Integration
- The Complaints Redressal System
- The Clinic Module
- The Violations Monitoring Module
- Enabling of Citizen Charter Concept

2013
- The Compliances Monitoring
- The Environment Auditor’s Monitoring System
- The Jobs – Vacancy Module
- The CO-Processing Waste Exchange Platform

2014
- The Android Mobile App
- The Internal Review System (Patraks) Module
- Monthly Progress Review (MPR) Module
- Management Information System (MIS) Module

2015
- Online GPCB ID & Password Module
- Online Revocation Application Module
- Municipal Solid Waste Management System Module

2016
- Online CCA Generation
- E-Waste Management System Module
- Recycler Registration Module
- Way Ahead – Aadhar Based e-Signature
## Impact of XGN

<table>
<thead>
<tr>
<th>The activity</th>
<th>Before XGN</th>
<th>2009-10</th>
<th>2015-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitoring Visits in a Year</td>
<td>7,500</td>
<td>10,721</td>
<td>56,000+</td>
</tr>
<tr>
<td>Pollution Samples Drawn in a Year</td>
<td>7,100</td>
<td>8,900</td>
<td>25,500+</td>
</tr>
<tr>
<td>Samples Analysed in labs in a Year</td>
<td>3,250</td>
<td>7,516</td>
<td>25,000+</td>
</tr>
<tr>
<td>Profile Updations by Ind-HCUs / Month</td>
<td>No System</td>
<td>1,800</td>
<td>9,500+ Monthly</td>
</tr>
<tr>
<td>PDF Docs uploaded by stake holders</td>
<td>No System</td>
<td>21,000</td>
<td>80,500+ Yearly</td>
</tr>
<tr>
<td>e-Returns files by stake holders – Yearly</td>
<td>No Track</td>
<td>35,000</td>
<td>1,40,000+</td>
</tr>
<tr>
<td>Water Cess Returns Filed</td>
<td>1,900</td>
<td>6,289</td>
<td>34,500+</td>
</tr>
<tr>
<td>NOC-CCA Applications – Yearly</td>
<td>2,500</td>
<td>5,280</td>
<td>19,000+</td>
</tr>
<tr>
<td>Ratio of Rejection - Yearly</td>
<td>40 %</td>
<td>38 %</td>
<td>3%</td>
</tr>
<tr>
<td>LAB Charges defaulting Amt</td>
<td>Rs 3.2 Cr</td>
<td>Rs 78 lakhs</td>
<td>Almost Nil</td>
</tr>
<tr>
<td>Total Waste CO-PROCESSED (MT/yr)</td>
<td>Nil</td>
<td>15,693</td>
<td>41,78,530</td>
</tr>
</tbody>
</table>
Common Consents & Authorisation

- Issuance of Common Consents & Authorisation (CCA) instead of individual consents & authorisation
- Issuance of CCA with longer validity (G - 10 years, O - 7 years, R - 5 years)
- Industry with ISO : 14001 given one extra year of validity
- Industry with Responsible Care (RC) Certificate given two extra years of validity
Regional Office and Vigilance Office concept

Third party monitoring through academic institutes

Regular meetings with NGO and Industries Associations to redress their complaints / issues

Issuance of written instructions at the site itself

Verification of compliance of written instructions in subsequent visit
Environmental Audit Scheme

- Implemented after the judgment of Hon. High Court of Gujarat
- Third party auditors registered with GPCB
- Third party auditors audit the identified industries
- Allotment of industries through XGN
- NEERI-Nagpur evaluated - suggested replication in other states
- JPAL-SA (Harvard University) assessed it as an innovative method of environmental regulation
Environmental Registration Reforms

- Notified list of green industries over and above CPCB list
- Exempted select Green industries from clearances (White Category)
- Policy for auto-renewal of CTE based on self-certification/third party certification
- Policy for auto-renewal of CTO based on self-certification/third party certification
- CTE issued for period of 7 years
- CTO issued for period of 5 (Red), 7 (Orange) and 10 (Green) years
Inspection based on industry categorization (Red, Orange, Green) and Scale (Large, Medium, Small) through a formula in XGN system

Green Category Industries which have a history of satisfactory compliance - exempted from routine inspection

Third party certifications accepted instead of Departmental inspections for Orange Category Industries
All GPCB offices are ISO 9001 and 14001 certified

- Standardisation in procedures & documentation – improved efficiency and quality of output
- Cost savings due to resource, waste and energy management

Six Laboratories of GPCB are NABL accredited

- Formal recognition of competence
- Benchmark for performance – standardisation of laboratory procedures, quality and efficiency
Co-processing of Hazardous Waste

Waste Co-Processed from 2009 till date (in MT)

- Fuel: 2,740,672 MT
- R/M: 9,017,765 MT
- Total: 11,758,436 MT

Disposal of industrial wastes and MSW in an environmentally sound manner

- Savings of natural resources and in the cement industry
- Energy used in incineration of wastes is saved
- Reduction in greenhouse gases
- Partial answer to the "NIMBY" syndrome
Co-processing of Hazardous Waste

Co-Processing Scenario Gujarat

Waste Co-Processed, MT

- Fuel
- R/M
- Total

Year: 2009-10 to 2016-17
Auto – Renewal CTO

- Existing industry can take the benefit of scheme
- Industry self-certifies no change in product, process, emissions, EMS etc.
- Industry should clear all dues before applying under this scheme
- Mandatory visit is waived under this scheme
- Verification during subsequent routine visit
- CTO revoked if false self-certification submitted
Clinical Approach – Act as facilitator

- GPCB calls out for Environment Clinic
  - Industry submit its Problems Online
  - Problems are discussed in the Clinic
  - Solutions for the pollution
  - GPCB Funded Research Scheme
    - Board owns the Industry’s Need Based Research projects
  - Research is required to solve the problem
  - Problem Solved due to Intervention of the Board-Common Solutions
  - Experts are invited by GPCB
  - Clinic for Any Product, Process, Cluster etc.
    - GPCB Funded Research Scheme
    - Industry submit its Problems Online
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                            - Solutions for the pollution
                              - GPCB Funded Research Scheme
Use of Technology

Date and Time of Emission

Name and Mobile No. of Industry

Live Visualization of the stack of the industry

Communication through mobile phone/message to industries by staff of GPCB

Date and Time of Emission

CCTV camera

Digital Video Recorder

Laptop at any place and

(CDC.- 32”inch at Reception counter)Live monitoring of the Industry’s stack from the GPCB RO office through laptop, PC and LCD TV.

Communication through mobile phone/message to industries by staff of GPCB.
All applications only online through XGN

Help Desk Concept to assist-support Small Scale Industries

Can avail facility without paying any charge

Help Desk at all ROs and also extended to Industry Association on request

Facilities like uploading documents, printing reports and bills, lodging application etc.
## Citizen’s Charter

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Type of Application</th>
<th>Time Limit in Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Consent to Establish</td>
<td>90</td>
</tr>
<tr>
<td>2</td>
<td>Consent to Operate</td>
<td>90</td>
</tr>
<tr>
<td>3</td>
<td>Bio-Medical Waste Authorisation</td>
<td>90</td>
</tr>
<tr>
<td>4</td>
<td>Municipal Solid Waste Authorisation</td>
<td>45</td>
</tr>
<tr>
<td>5</td>
<td>Plastic Waste Authorisation</td>
<td>90</td>
</tr>
<tr>
<td>6</td>
<td>E-Waste Authorisation and Registration</td>
<td>90</td>
</tr>
<tr>
<td>7</td>
<td>Hazardous Waste Import One Time Registration</td>
<td>30</td>
</tr>
<tr>
<td>8</td>
<td>Environment Public Hearing</td>
<td>45</td>
</tr>
<tr>
<td>9</td>
<td>Trial run for Co-processing of Hazardous Waste</td>
<td>60</td>
</tr>
<tr>
<td>10</td>
<td>Registration for Recycling of Hazardous Waste</td>
<td>90</td>
</tr>
</tbody>
</table>
Awards

- National Award for eGovernance (Processes Re-engineering) - 2009-10
- CSI Nihilent Award 2010-11
- CSI Nihilent Award for Excellence – 2013
- Manthan South Asia & Asia Pacific Award – 2014
- National Award for eGovernance (Incremental Innovation) - 2014-15
Recognitions

Initiative has helped GPCB in obtaining and sustaining

ISO – 9001 and ISO – 14001 at its Head Office and all its Regional Offices

NABL Certification for 6 Laboratories

- Planning Commission recommended replication and roll out of XGN Gujarat Model in other SPCBs - 2012
- DIPP - GOI recognised XGN as successful tool for e-Governance - May 2014
- Research paper – “Environmental Regulations through ICT” selected at Ireland University, Galway in 2014
Recognition – Ease of Doing Business

(prepared by World Bank Group, KPMG, CII and FICCI)

GPCB achieved 100% compliance in Area of “Complying with Environment Procedures” during assessment Years 2015 and 2016

GPCB’s e-Governance efforts through the portal – XGN are specially recognised
Considering the successful implementation of XGN in GPCB and other SPCBs and the requests received from other SPCBs, Ministry of Environment, Forest and Climate Change has been requested to replicate and implement XGN at pan India level vide letter no. GPCB/IT-29/327938 dtd. 21st Sept., 2015
Thank You

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