

Advisory Services in Environmental Management



A snapshot

The programme has enhanced service delivery and infrastructure supporting the urban reforms in seven cities, improved resource efficiency in more than 70 SMEs, advised in the construction of a TSDF (Treatment, Storage & Disposal Facility) for Hazardous waste in Karnataka with request for replication from Tamil Nadu, Gujarat and Kerala, improved consumer awareness on rights and sustainable consumption in Gujarat, Madhya Pradesh, Orissa and Tamil Nadu and improved electronic waste management in Delhi, Kolkata, Pune and Bangalore with a policy level impact by drafting the e-waste Management and Handling Rules, 2011 released by Ministry of Environment & Forests, GoI. The CDM market in India is also strengthened through “Carbon Bazaar”, an international event for creating a platform of knowledge sharing and meetings of buyers and suppliers for carbon credits.

What was our objective?

Improving the efficiency of environmental management in urban and industrial areas and strengthening consumer protection in India.

Who was our partner?

Ministry of Environment and Forests (MoEF)

Who were we working with?

- Government Bodies (national, state and local level): Ministry of Consumer Affairs (MoCA), Ministry of Urban Development (MoUD), Ministry of Housing & Urban Poverty Alleviation (MoH&UPA), Department of Pharmaceuticals (Ministry of Chemical and Fertilizers (MoC&F), Central Pollution Control Board (CPCB), State Pollution Control Board of Karnataka and West Bengal Urban Local Bodies/ municipalities of Raipur, Nashik, Shimla, Varanasi, Tirupati, Kochi and Nainital, Town Planning departments, Development Authorities, Water and Sewerage Boards, etc.

- Public institutions and organisations at the national and state levels: Environment Protection Training Research Institute (EPTRI), Andhra Pradesh Industrial Infrastructure Corporation (APIIC), Gujarat Industrial Development Corporation/ Gujarat Cleaner Production Centre (GIDC/ GCPC)
- Private organisations/ consultancy: adelphi GmbH, GFA Consulting Group
- NGOs: Toxics Link, SAAHAS, Consumer Education and Research Centre (CERC), Consumer Voice, Integrated Research and Development (IRADe)
- Training and research institutions: National Institute of Disaster Management (NIDM), Disaster Management Institute (DMI), The Energy and Resources Institute (TERI), Engineering Staff College of India (ESCI), Administrative Staff College of India (ASCI)
- Private sector/ industry: industrial estate developers; industries, industrial estate managers.
- Industrial associations: Federation of Indian Chambers of Commerce (FICCI), Manufacturers' Association of Information Technology (MAIT), Electroplating Manufacturers Association of Tamil Nadu (EPMFAT), Indian Chambers of Commerce (ICC).

About the Programme

The programme establishes links and promotes cooperation between German and Indian institutions to encourage progress in priority areas of India's development, such as the National Environment Policy (NEP), the National Action Plan on Climate Change (NAPCC), the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), the National Urban Sanitation Policy (NUSP), Service Level Benchmarking (SLB) and Rajiv Awas Yojna. It provides technical support for developing pilot measures to advance environmental sustainability for example enhance resource efficiency in industries for energy and monetary savings by applying ECOPROFIT¹, climate proofing of vulnerable coastal communities for adapting and mitigating risks and implementation of models for consumer information and alternative dispute resolution for educating consumers on sustainable consumption patterns. It builds individual and organisational capacities, and promotes networking activities for stakeholders at national, state and local levels.

Accordingly, the programme is divided into the following components (1-4) and cross cutting areas (5-6):

1. **Sustainable urban habitat** – improved the planning, operation and financial sustainability of urban environmental infrastructure in the selected cities of Varanasi, Shimla, Raipur, Kochi, Nainital, Tirupati and Nashik.
2. **Sustainable industrial development** – devised, tested and promoted techniques for the environmentally-friendly and resource-efficient management of individual industries, existing industrial parks, as well as new industrial parks
3. **Sustainable consumption and consumer protection** – improved the range of services offered by consumer protection organisations at national level and in Gujarat, Madhya Pradesh, Orissa and Tamil Nadu, while accommodating ecological criteria. Empowered consumers to make informed decisions for better quality and more sustainable products and services and strengthened their rights against unfair trade practices.
4. **Sustainable environmental governance** – introduced environmental, economic and legal instruments that support successful urban-industrial environmental management at the policy level, like the e-waste Management and Handling Rules, 2011, issued by the Government of India in May 2011.
5. **Climate change** – was a cross-cutting issue across the programme. It supported India's efforts to implement the National Action Plan on Climate Change by developing CDM markets. It also reduced reducing vulnerability and risks related to impact of climatic change through increased adaptation and resilience of coastal communities.
6. **Human resource development** – promoted capacity development of institutions and stakeholders involved in the programme. It facilitated knowledge management and information dissemination. The "Environmental Planning and Disaster Risk Management" (EPDRM) programme, launched under HRDP, focused on capacity building on natural hazards and industrial disaster risk management.

¹ ECOPROFIT was developed in 1991 by the Environmental Office of the City of Graz, Austria and Graz University of Technology. ECOPROFIT is a cooperative approach between the regional authority and local companies. Relying on preventive strategies, ECOPROFIT helps in enhancing the efficiency of industries and businesses, reducing the demand for raw materials and energy and minimizing associated environmental impacts from emissions/ effluents/ wastes, thereby facilitating sustainable development. GIZ-ASEM has introduced the tool in India in 2003.

Key results

- Sustainable municipal waste management has been introduced in the project-cities and has benefitted around 4.5 million residents. Initiatives in Raipur have been up-scaled at state level by Chhattisgarh, additionally benefitting three million people. Communication material for awareness generation on solid waste management in Nashik, Shimla, Varanasi and Tirupati were adapted by the city administrations for up-scaling their campaigns (2.5 million citizens). Nashik (1 million citizens) adopted the Municipal Solid Waste Management Plan, a modern planning and communication instrument showcasing the initiatives of the city and future plans in solid waste management.
- City sanitation plans have been developed through a consultative process in the seven project cities by a unique stepwise approach in plan preparation, which talks about compilation of status reports including all available secondary data/information and data analysis using spatial interpretation tools. These plans were tailor-made for each city and include recommendations for further improvements in the sectors of sewerage, drinking water supply, storm water management and solid waste management.
- The success of the pilot phase of Service Level Benchmarking (SLB) for access to consistent and transparent data on urban service provision and delivery in the fields of water supply, sewerage, storm water drainage and solid waste management has led to adoption of SLB indicators nationwide and the exercise is currently being done in 1500 ULBs by the Ministry of Urban Development, GoI.
- Efficient concepts for management of the non-revenue water losses of drinking water supply have been developed for Nashik. These concepts are being implemented by the Nashik Municipal Corporation.
- In collaboration with COSTFORD, Kerala, 10 prototype designs on Low Cost Green Housing have been developed for the Forest Department of the Government of Madhya Pradesh for achieving resource and energy efficiency in a very cost-effective manner. Following these designs, two houses have already been constructed by the Forest Department as low cost green houses.
- 65 arsenic removal plants catering for up to 300 families have been installed through a Public-Private Partnership in West Bengal.
- Planning Eco Industrial Development: The principles of eco-industrial parks have been introduced to more than 30 existing industrial parks in Andhra Pradesh and APIIC is keen to extend the concept to all its 300 industrial parks in a phased manner after the success achieved in the 30 existing parks. In the area of using renewable energy, replacement of street lamps with solar lamps initially in three of its industrial parks is undertaken. The eco industrial park principles have been further demonstrated through a systematic environmental impact assessment (EIA) and site master planning for the Andhra Pradesh Special Economic Zone. APIIC has taken up similar EIA studies now for 12 of its industrial parks.
- Hazardous waste management: The waste management facility at Dabbaspeta near Bengaluru in Karnataka is fully operational where about 42,000 tonnes of waste is received to its full capacity every year. Over 300 industries have become members of the facility for regularly sending their wastes and nearly 3,000 industries now having the mandatory authorization for waste disposal under the Hazardous Waste Management Rules, 2003. Demand for replication has been received from several states such as Tamil Nadu, Gujarat and Kerala.
- Management of industrial estates: Looking at GIZ's efforts in Andhra Pradesh, Gujarat is promoting it in two existing industrial parks at Vatva and Naroda near Gandhi Nagar. The organisational structures have been strengthened with the planning authorities in Andhra Pradesh (APIIC) and Gujarat (GCPC) for facilitating improved environmental management. Presence of environmental staff in various Zonal Offices of APIIC, have improved environmental management and is improving environmental infrastructure of the industrial parks. For achieving the same, systematic environmental database has been developed on pilot basis for six industrial parks in Andhra Pradesh and a sophisticated GIS based environmental information system is developed in one industrial park each in Gujarat and Andhra Pradesh. Towards strengthening knowledge of the stakeholders for enabling improved industrial park management, the pilot work in Andhra Pradesh has been documented; a website on Eco Industrial Development (www.ecoindustrialparks.net) and a web platform on Industrial Disaster Risk Management (www.hrdp-idrm.in) are operational.
- Relocation of Polluting Clusters: The relocation of polluting industries is also an important aspect of the project. The planning for Eco-Electroplaters Park at Karaisalkulam, near Madurai in Tamil Nadu, is completed and the infrastructure including industrial buildings, roads and facilities is under construction.
- Resource Efficiency in Industries: Resource efficiency and conservation of materials has been successfully demonstrated in individual industries. 34 companies and 11 hotels have used the EcoProfit tool since 2009 in three different clusters located in different parts of India. For example, the 12 industries from Delhi National Capital Region that were supported by the project, saved about Rs 10 million with savings from energy (102.5 tons of Oil equivalent), fresh water (9,376 KL) and waste water (3,616 KL). In a cluster of nine industries in Bhiwadi (Rajasthan), the activity is in its final stages and the results

so far show that INR 7.01 million have already been saved by the industries. The ECOPROFIT tool is further customized to the needs of hotel industry and is under application for 11 hotels selected in Tirupati (Andhra Pradesh) and 12 hotels in Shimla (Himachal Pradesh).

- A Consumer Advice Network has been established in Gujarat, Madhya Pradesh, Orissa and Tamil Nadu which has counselled more than 100,000 individual consumers to make smarter shopping choices or enforce their rights against unscrupulous traders. Awareness campaigns were carried out especially in rural areas to educate consumers on the impact of their consumption patterns on the environment and about the advantages of energy efficient products. A Sustainable Shopping Basket was developed as a booklet guiding consumers towards a more sustainable lifestyle. Consumer rights have been improved through policy reforms of the Legal Metrology Act (2010) and may be further strengthened through the ongoing reform of the Consumer Protection Act for which GIZ provided substantial input.
- The Green accounting study conducted as a pilot measure for valuation of quantitative and qualitative changes of natural resources in Andhra Pradesh has increased demand for replication in other states.
- The e-waste (Management and Handling) Rules, 2011, providing for environmentally sound management of e-waste, channelizing unregulated flows from the informal to the formal sector, have been launched by the GoI in May 2011. The policy will enhance the development of a resource efficient recycling market.
- The Environmental Fiscal Reforms project has contributed to the development and introduction of user charges for solid waste management in three JNNURM cities (Varanasi, Kochi and Shimla) enhancing the financial sustainability and improved services of waste management.
- The Carbon Bazaar, an annual international event initiated in 2009, strengthens the carbon market by promoting dialogues between various stakeholders. The project has developed an online system for the submission of Clean Development Mechanism Project Design Documents and has assisted the MoEF in preparing policy papers for India's multilateral and bilateral cooperation with the Conference of Parties (COP), UNFCCC (United Nations Framework Convention on Climate Change) /SBSTA (Subsidiary Body for Scientific and Technological Advice) and other forums and meetings of BASIC countries.
- The Human Resource development component has set up environmental laboratories and infrastructure for improved environmental monitoring and boosted networking and cooperation for industrial disaster risk management. A network of 15 institutions spread across Karnataka, Maharashtra, Madhya Pradesh, Orissa, Tamil Nadu, Andhra Pradesh, Rajasthan, Gujarat, Kerala, Goa, Delhi and Tripura is developed for capacity building and knowledge sharing in industrial disaster risk management, including state disaster management institutions and state and district management authorities.

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