



## Environment-friendly Techniques in Selected Industry Sectors

Country: India Overall Term: March 2012 to February 2015

Implementing Agencies: GIZ (Deutsche Gesellschaft fuer Internationale Zusammenarbeit GmbH) of the German Federal Ministry for Economic Cooperation and Development (BMZ) and the Ministry of Environment and Forests (MoEF) of the Government of India

### Context

The Indian textiles industry plays an important role for India from its contribution to the industrial output, employment generation and the export earnings. It contributes about 14% to the industrial production, 4% to the GDP and 11% to the country's export earnings. The textiles sector is the second largest provider of employment, after agriculture. Similarly, the Indian paper industry accounts for about 1.6% of the world's production of paper and paperboard. The estimated turnover of the industry is Rs 35,000 crores (USD 7 billion) approximately and its contribution to the exchequer is around Rs. 3,000 crores (USD 0.6 billion). The industry provides employment to more than 0.37 million people directly and 1.3 million people indirectly.

While the industry sectors such as the textiles, and pulp and paper are crucial for India, the growing environmental concerns and environmental litigation risks are potential threats for the industries, particularly those from the SME sector. The manufacturing processes in industries, in general, are characterized by high consumption of resources like electricity, fuel, water and a variety of chemicals in a long process sequence that generates a significant amount of waste and emissions. Such industries can significantly benefit by making improvements targeting resource efficiency, process improvements, energy efficiency and reduced negative environmental impacts. By

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employing appropriate technologies, both environmental and economic gains can be achieved.

### Objective

The overall objective of the technical cooperation on the core topic of "Environment-friendly Techniques in Selected Industry Sectors" is that the use of environment-friendly technologies and techniques is promoted in selected industry sectors, particularly from Small and Medium Enterprises (SMEs). This core topic has focus on textiles, and pulp and paper sectors.

### Approach

The core topic "Environment-friendly Techniques in Selected Industry Sectors" has the following approach:

- Current status and core issues to be addressed are assessed by taking up baseline surveys and situation analysis of the textiles, and pulp and paper industry sectors. Based on this, industries



are identified in selected states and solutions implemented on demonstration basis, addressing the identified core issues.

- The experiences of the pilot examples are documented and their actual replication is targeted in different industries of the industry sector in different states.
- Stakeholder consultations are taken up throughout the project phase, and learnings and solutions are targeted to be incorporated into policies, planning processes and guidelines.
- Capacity building and knowledge management activities are undertaken simultaneously.

## Activities

In line with the adopted approach, IGEP takes up baseline survey and/or situation analysis to identify exact problems to be tackled in the selected industry sectors of textiles, and pulp and paper. Based on this, appropriate pilots are planned and implanted in these sectors in selected areas to demonstrate and generate knowledge on innovative and financially sustainable solutions.

**The main pilot interventions include:**

- Implementation of environment-friendly techniques in textiles industries in Narol Industrial Estate near Ahmedabad in Gujarat.
- Implementation of environment-friendly techniques in pulp and paper industries in Vapi Industrial Estate in Gujarat.

The supportive modules include implementation of Ecoprofit measures in industries in selected areas in Andhra Pradesh and Delhi NCR, and in hotels/restaurants in Himachal Pradesh and Andhra Pradesh.

IGEP coaches the process and offers technical assistance if required.



Stakeholders' consultations are facilitated through workshops at national/state/local levels and information on environment-friendly techniques is shared and exchanged. Policy dialogues will also be undertaken for development of nationally and locally relevant standards, rules and policies.

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Building knowledge-base on environmentally-friendly techniques and development of capacities at various levels underline all the above-mentioned activities.

Feedback from the pilot measures and practical experience will be guided into the formulation/review of policy guidelines (standards, rules, policies etc.) at national/state/local level.

Upscaling and replication of these demonstrated technologies and experiences is expected to take place under full responsibility of the partners. IGEP coaches the process and offers technical assistance if required. The programme also advises on how to monitor the impact of the up-scaled development measure.

## Expected Results

- Innovative techniques/technologies that are financially sustainable are demonstrated for environmental improvement and resource (energy, materials, waste, and emissions) efficiency in textiles, and pulp and paper industry sectors.
- Experiences of the pilot examples are documented and the actual replication is promoted in different industrial areas of different states.
- Reference documents are developed and the national- and state-level actors are supported in the integration of learnings

and solutions for promoting sustainable environmental improvements in textiles, and pulp and paper sectors in India.

- Capacity building and institutional strengthening measures are undertaken for identified institutions/ stakeholders.