

Clean and resource-efficient production

According to the UNEP Report Towards a Green Economy, 'manufacturing is responsible for around 35 per cent of global electricity use, 20 per cent of CO₂ emissions and over a quarter of primary resource extraction'. Some industries cause severe environmental impacts and pollution-related health damage. However, at the same time, it is industry that is currently generating solutions to these problems and putting them into practice. This explains why clean and resource-efficient production has become a centrepiece of the green economy agenda.

GIZ defines clean and resource-efficient production as including all measures aimed at improving the input-output relation of material, water and energy-consuming processes and at mitigating the adverse environmental impacts resulting from these processes. Measures of this kind are economically beneficial to companies, making them more profitable and boosting their competitiveness, especially under the current trend of rising raw material and energy prices.

The market for cost-saving technologies is growing fast as a result of the current drive for resource efficiency. Customers are also becoming more environmentally aware so that their expectations of manufacturing companies are changing. This opens up new opportunities for green investment. However, there are constraints – primarily in small and medium-sized enterprises (SMEs) – which can only be overcome by creating an enabling environment. GIZ therefore provides policy advice on establishing effective incentives to decision-makers in developing countries. This is backed by support measures for public and private service providers. We help them to expand and enhance the consultancy and training they offer in the field of environmental and resource management.

GIZ has almost 20 years of experience in promoting clean and resource-efficient production in developing countries, mainly



Production of valves for water pipelines in the Bhiwadi cluster, Rajasthan, India

PHOTO: GIZ/LALIT SHARMA

gained in the context of business development and environmental management programmes funded by the German Ministry for Economic Cooperation and Development (BMZ). Activities in this field focus on three approaches:

(a) profitable environmental management, (b) sustainable management of industrial zones, and (c) technology cooperation. Their implementation is supported by specific instruments and tools that have been developed and tested in close collaboration with experts from national and international partner organisations.

The range of services provided by GIZ includes:

- › consultancy and training programmes for employees of small and medium-sized enterprises and external consultants. These consist of modules that may be combined, e.g. Good Housekeeping (GHK) and Environment-Oriented Cost Management (EoCM);
- › advice on identifying improvement options at company level and linking consultancy and training programmes with other instruments such as environmental credit lines; »

- › advice on planning and developing eco-industrial parks and fostering networks for public and private-sector stakeholders;
- › providing support to operators of industrial zones in hiring service companies (such as recycling firms) to ensure sustainable site management;
- › strengthening intermediary organisations, such as business development and technology transfer agencies, in delivering services to boost companies' technological capacities;
- › facilitating the transfer of green technologies through development partnerships with the business community.

'Save the Environment while Saving Money'

The Indo-German Environment Partnership (IGEP, former ASEM*) is jointly implemented by GIZ, on behalf of BMZ, and the Indian Ministry of Environment and Forests. It has many years of experience in helping small and medium-sized Indian enterprises to increase their resource efficiency and improve environmental performance. Companies are thus enabled to comply with environmental regulation while at the same time becoming more competitive.

A number of training courses for key employees of companies in various industrial sectors have been conducted. They follow a systematic approach of theoretical input and on-the-job learning through on-site consultation. They also encompass implementation of pilots in small and medium-sized enterprises, including monitoring measures and evaluation practices.

Since 2003, more than 120 small and medium-sized enterprises, mostly located in clusters or industrial parks, have participated in training and consultancy activities, resulting in the identification of over 1,200 improvement options. About 36 per cent of the executed improvement measures were related to energy, 29 per cent to water, 25 per cent to auxiliary materials and other material in-



PHOTO: GIZ/ LALIT SHARMA

A manufacturer of bathroom fittings in Rajasthan, India

put, and 10 per cent to waste. On average, a return of four times the investment cost was achieved, with 90 per cent of the investments being paid back in less than a year.

To give an example: as a result of the advisory services provided by the programme, a tyre manufacturer saved around 12,000 kilolitres of water and 1,785 tonnes of coal by reducing steam leakage. The enterprise also reduced compressed air losses by 26 per cent and lowered its energy demand by 329,400 KWh/year.

The programme's 10 years experience shows that technology is not the only key to better environmental and economic performance. Capacity development in small and medium-sized enterprises, along with ownership of senior management, has proven to be of equal or even greater importance. ■

For further information see:

› www.asemindia.com

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