



# Transfer of Environmentally Sound Technologies

## Background

Industry is facing numerous challenges in its effort to be competitive while reducing its ecological footprint. Pressure from stakeholders throughout and beyond the supply chain is increasing, requiring a more efficient use of resources and production inputs, compliance with national environmental regulation and adoption of international standards. In order to assist industry in dealing with such challenges and support sustainable entrepreneurship, the United Nations Industrial Development Organization (UNIDO) designed the Transfer of Environmentally Sound Technologies (TEST) integrated approach.

The TEST approach was developed in 2000 and piloted in the industrial hot spots of the Danube River Basin. Since then, TEST has been replicated in several industrial hot spots worldwide. One of its contributions has been to prevent the discharge of industrial effluents into international waters (rivers, lakes, wetlands and coastal areas) and thereby protect water resources for future generations.

## Approach

Transfer of Environmentally Sound Technologies integrates and combines essential elements of tools like resource efficient and cleaner production (RECP), environmental management systems (EMS), environmental management accounting (EMA), and corporate social responsibility based on an integral analysis of the needs of an enterprise.

### The integrated approach is based on three basic principles:

1. First, it gives priority to the preventive approach of resource efficient and cleaner production (which implements pollution prevention techniques within the production process) and considers the transfer of additional technologies for pollution control (end-of-pipe technologies) only after RECP solutions have been explored. This leads to a win-win situation, as the transfer of technologies optimizes both environmental and financial elements



2. Second, it addresses the managerial aspects of environmental management as well as its technological aspects, by introducing tools such as EMS and EMA.
3. Third, it places environmental management within the broader strategy of environmental and social business responsibilities, by leading companies towards the adoption of sustainable enterprise strategies

## Projects

Some of the projects, developed for different geographical areas, include:

- **Danube:** “Transfer of Environmentally Sound Technology (TEST) in the Danube River Basin”, funded by GEF, 2001-2004
- **Mexico:** “Strengthening the Effective and Democratic Water and Sanitation Management in Mexico to Support the Achievement of the Millennium Development Goals”, funded by the Government of Spain through the MDG Achievement Fund, 2009-2012
- **Cambodia:** “Identification, assessment and prioritization of pollution ‘hot spots’ and transfer of environmentally sound technologies in the Cambodian section of the Mekong river basin”, funded by the Korea International Cooperation Agency (KOICA), 2011-2012
- **Egypt, Morocco and Tunisia:** “Transfer of Environmentally Sound Technologies in the South Mediterranean Region (MED TEST)”, funded by the Global Environment Facility (GEF) and the Government of Italy, 2008-2012

## Overview of results

The following summarizes the results from the MED TEST project implemented in Egypt, Morocco and Tunisia, 2008-2012:

A pool of 43 manufacturing industries across seven industrial sectors received technical assistance in identifying and implementing improvement measures. In the three participating countries, the project identified USD 17 million in

annual savings corresponding to a USD 20 million investment portfolio with significant environmental savings, such as 9.7 million m<sup>3</sup> of water and 263 GWH in energy. On average, more than 50 per cent of the identified measures had a return on investment in less than half a year, as illustrated in Figure 1. Significant savings opportunities for energy, water and raw materials were achieved (more than 20 per cent compared to the baseline figure) revealing a huge and untapped potential for shaping business strategies to accommodate constraints on natural resources. Companies participating in TEST adopted new visions and policies to embed resource efficiency into their management systems (e.g. ISO14001), improving their image and brand value and strengthening stakeholder relationships.

Industry fact sheets and case studies can be viewed at: [www.unido.org/medtest](http://www.unido.org/medtest)

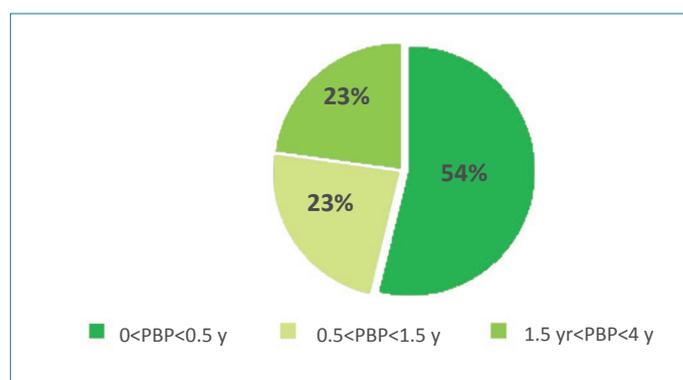


Figure 1: Return on investment of identified resource efficiency measures from the project MED TEST I

## Outlook

Following the positive results of MED TEST I, the European Union has sponsored the replication and upscaling of Transfer of Environmentally Sound Technology in the Mediterranean within the framework of the SwitchMed Programme ([www.switchmed.eu](http://www.switchmed.eu)). Similarly, the United Nations Industrial Development Organization continues to develop TEST projects in different regions upon the request of Member States.