

Resource Efficiency

A new concept for Technical Co-operation







Sector Project

"Resource Efficiency and Urban and Industrial Environmental Management"

- Project goal: Integrate innovative approaches and instruments to promote resource efficiency in the public and private sector into a coherent development co-operation strategy.
- Main action lines: Evaluation of experiences, pilot measures, concept development, and information and communication management.
- Duration: 3 years
- Budget: 1 million Euro





Urban and Industrial Environmental Management

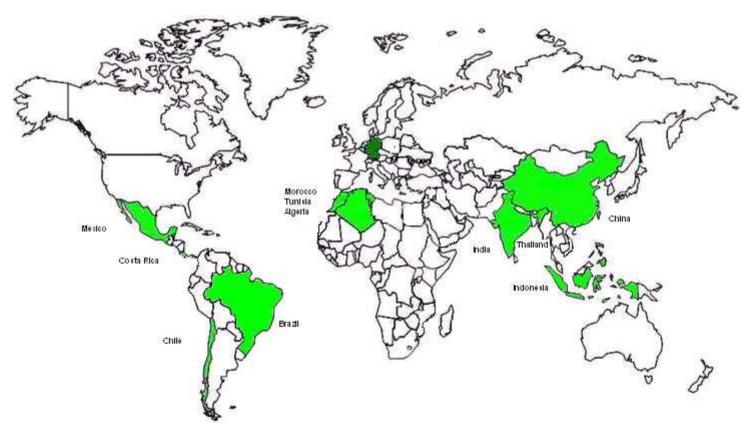
Thematic overview

- Environmental policy and institutional development
- Municipal environmental management
- Environmental management in small and medium enterprises
- Air pollution control
- Water protection and waste water control
- Solid waste management
- Management of contaminated sites and brownfield development





Urban and Industrial Environmental Management <u>Regional Overview</u>



Regional focus on emerging economies





Definitions

<u>Urban and Industrial Environmental Management:</u>

Urban and industrial environmental management comprises all kinds of activities which aim at the improvement of the urban environmental quality. At the same time, these activities shall contribute to the reduction of resource consumption in urban agglomerations as well as to the avoidance and mitigation of negative impacts on the city's surroundings. (Source: GTZ, Stadt – Industrie – Umwelt, 1998)

Resource Efficiency:

Resource efficiency means in general the relation of a desiered output of a process to the related resource requirement or input. If the output is an economic measure, e.g. value added or GDP, we speak in the context of whole economies of ,resource productivity'. Resource efficiency of processes, however, can also refer to physical relations, e.g. the relation of utilized raw material to the total amount of extracted primary materials. (Source: Wuppertal Institute, 2008)





Conceptual differences

<u>Urban and Industrial</u> <u>Environmental Management</u>

- Descriptive concept
- Impact-oriented (emissions)
- Not measurable (various indicators)
- Energy less relevant
- Urban focus
- Weak link to economic policy

Resource Efficiency

- Analytic concept
- Process-oriented (input-output)
- Measurable (mainly one indicator)
- Energy fully integrated
- No geographic focus
- Strong link to economic policy



Ressource efficiency is a very broad concept, but at the same time a measurable quantity, which turns it into a useful indicator for sustainable development.





Project Approaches

Micro Meso Macro

Individual firm level

Reduce consumption of resources and emission of pollutants and waste

Reuse resources

Recycle by-products

Profitable Environmental Management (PREMA)

Various countries

Regional level

Collaborate in industrial parks and clustered or chained industries

Resources shall circulate fully in the local production system

Sustainable Management of Industrial Areas (SMIA)

Tunisia

Network level

Municipal or regional by-product collection, storage, processing, and distribution systems

Integrate different production and consumption systems

Eco City Planning and Management

China, India

Source: Guonei Zhou, Material flow analysis and development of circular economy in China.





Challenges

for German Development Co-operation

- To shift the focus from environmental management approaches to resource efficiency strategies
- To further develop appropriate tools to promote resource efficiency in developing countries
- To gain and gather more project experience on how to put resource efficiency policies into practice
- To contribute to the international discussion on resource efficiency in development co-operation
- To establish links with German and European policies regarding the promotion of resource efficiency
- To create a new conceptual framework linking the brown agenda with resource efficiency and climate change policy





