

## CLEANER PRODUCTION PROGRAM IN PARAÍBA, BRAZIL

### PROJECT

**CLIENT >** SWISS STATE SECRETARIAT FOR ECONOMIC AFFAIRS (SECO)  
UNIVERSITY OF APPLIED SCIENCES NORTHWESTERN SWITZERLAND (FHNW)

**LOCATION >** CAMPINA GRANDE, PARAÍBA BRAZIL

**DURATION >** August 2004 – October 2010

**COST >** USD 965'000.--

**FEES >** USD 97'000.– (2009 – 2010)

The objective was to contribute towards a sustainable industrial production mode in the Brazilian federal state of Paraíba and its neighbour states by applying cost-effective measures in particular with regard to the efficient use of fuel wood, thus to contribute to reduce desertification in the rural area.

The project's main component included the capacity enhancement of the local partner institution „Serviço Brasileiro de Apoio às Micro e Pequenas Empresas (SEBRAE)”. The trained consultants formed a new profit center under SEBRAE called Centro de Produção Industrial Sustentável (CEPIS). CEPIS will provide high quality services to local enterprises in the field of Cleaner Production techniques and Cleaner Technologies.

### PARTICULARITIES

In particular the project encompassed the following tasks:

- Capacity building of technical consultants of SEBRAE and staff of industrial enterprises in:
  - > Cleaner Production methodology
  - > Environmentally sound technologies and energy efficiency
  - > Specific trainings for the targeted industrial sectors using fuel wood as energy source
- Accompanying, coaching and backstopping of the trained consultants during Cleaner Production audits in the companies
- Support and advise during the implementation of Cleaner Production options in the enterprises
- Provision of and training on adequate measuring equipment
- Knowledge management, technology brokerage and expertise for the targeted industrial sectors
- Project management, such as strategic support, reporting, management of funds

Major targeted industrial sectors were companies using significant amounts of fuel wood, such as:

- Red ceramic industry
- Gypsum calcination plants
- Hotels
- Restaurants
- Bakeries

### OUR PERFORMANCES

During the years 2009 and 2010 CSD's Cleaner Production experts were responsible for:

- Design, planning and conduction of the third modular Cleaner Production training for local consultants. This included classroom training and practical exercises on the Cleaner Production methodology, Auditing in companies, Cleaner Production option generation and evaluation as well as accompanying trainees in a red ceramic company.
- Support and technical advice during Cleaner Production audits performed by consultants.
- Guiding and backstopping during the implementation of specific Cleaner Production options in red ceramic brick kilns, such as optimized layering arrangement of tiles in the kilns, mixing of saw dust as internal fuel source to the clay, optimizing firing regime in order to improve product quality and to significantly reduce broken/rejected products.
- Support in the elaboration of marketing material (fact sheets of Cleaner Production Audits) and technical publications about benefits from implemented Cleaner Production options for local journals.
- Advise in the design of a sector specific Cleaner production consulting scheme for bakeries.



Drying of roof tiles in a small roof-tile production company in Carnaúba dos Dantas, RN.



“Caipira kiln” for roof-tile production.



Classroom training for CEPIS staff and external consultants.