

International Department

OWASUPI - Optimization of Water Supply using Performance Indicators in Rwanda



It was the overall project objective to enhance and secure the long-term supply of clean water to the population of Rwanda. More specifically, the project aimed to implement modern optimization strategies for public water supply based on capacity development and enhancement of technical efficiency.

This was accomplished through the implementation of a key performance indicator database, the improvement of performance indicators with the help of a conceptual design and the execution of technical optimization measures, attacking the predominate problems:

- 1) Urban water supply in Rwanda mainly relies on surface water which can only be treated with the use of a considerable amount of chemicals.
- 2) Conceptually inadequate network extensions, separation of pressure zones without energy optimization, poor energy efficiency of the existing pumping systems and technical losses of 35% (as of 2010).

The implementation of a key performance indicator system as well as optimization measures and capacity development improve the situation in these three core fields of the capacity development initiatives are:

- Reduction of chemical use in water treatment
- Increase of energy efficiency in supply systems over the entire chain of water abstraction, treatment and distribution
- Reduction of technical water losses through introducing pressure management and pressure zoning based on hydraulic network modeling

Client:

Government of Rwanda

Financed by:

Europe Aid

Information:

Project country:	Rwanda
Overall project value (EUR):	559.864,00 Euro
Provided staff:	4 Key Experts

Service provided:

- Provision of technical, managerial and administrative support:
- Development and implementation of a performance indicator system
 - Conceptual assistance and training on groundwater use and well field management
 - Identification of water treatment plants for process optimization
 - Conceptual assistance and training on WTP process optimization
 - Identification of pumping stations for energy efficiency improvement
 - Conceptual assistance and training on pump selection and (pump) energy efficiency
 - Establishment of a hydraulic network model
 - Proposals for pressure management
 - Proposals for filter repair
 - Block lectures on project topics at Kigali Institute of Technology (KIST)

Implementation:

2013 - 2015