## Project data sheet



TECHNISCHE UNIVERSITÄT DARMSTADT

## CuveWaters - Integrated Water Resources Management in Central-Northern Namibia (Cuvelai Basin) and in the SADC-Region, Phase III: Transfer of a Multi-Resource-Mix Sub-project: Sanitation and Water Reuse

CuveWaters is an interdisciplinary project on the development and implementation of Integrated Water Resources Management (IWRM) for the Cuvelai-Etosha Basin in the north of Namibia. The central goal of phase III (2013-2015) is the takeover of the pilot plants (that where implemented in phase II) by the Namibian partners, as well as empowering these partners to operate the plants autonomously over the long term. The prerequisites for a sustainable takeover of the plants are their functionality and practicability for everyday use, and the corresponding expertise of plant operators and decision makers. Based on plants that are already running successfully, dissemination of the results from the pilot-like implementation is also planned.

Together with local stakeholders, the city of Outapi has been chosen as the location for implementing the CuveWaters sub-project "Sanitation and Water Reuse" in phase II (2008-2013). Three different sanitation facilities have been developed and implemented in the city of Outapi. The water reuse concept comprises vacuum sewers, a combined anaerobic-aerobic wastewater treatment, UV disinfection and the use of the treated water for agricultural irrigation. In phase III the objective is to ensure that the water reuse plant operates sustainably, and to further technically adapt and optimize the overarching concept of municipal wastewater collection, drainage and treatment as well as agricultural water reuse. This is done in close cooperation with the Outapi Town Council who is currently operating the plant.

The technical monitoring on the sanitation facilities, vacuum sewer system and wastewater treatment plant that was begun at the end of phase II will be continued. Quantitative and quality data on water, sludge and biogas as well as the number of users and information on operation and maintenance issues is used for optimization and substance flow and energy analyses. In cooperation with the project partner Bilfinger Water Technologies, particularly issues such as the utilization of surplus heat from biogas usage and the pretreatment of biomass to increase the gas yield will be studied.

All technical activities are accompanied by framing activities for capacity building, participation and stakeholder involvement.

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