

Adapting urban water resources management to climate change with private sector participation

ProACC

Context

The water supply of the megacity Lima depends mainly on the rivers Chillón, Rímac and Lurín. Climate-related fluctuations in the available volume of water and the increasing demand for water are already leading to seasonally severe water shortages. Pollution from mining, industrial and domestic wastewater discharges and unregulated waste disposal further affect available water resources. The resulting challenges such as scarce water resources, uncontrolled withdrawals and increasing pollution as urbanization progresses, are aggravated by the consequences of climate change and cannot be managed without the cooperation of all relevant actors, especially the private sector.

Objective

The water resources management in the Chillón, Rímac and Lurín watersheds is orientated towards climate change adaptation, with involvement of the private sector.

Approach

The project advises the National Water Authority (Autoridad Nacional del Agua – ANA) on improving the water management in the Chillón, Rímac and Lurín watersheds. In order to preserve

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the quality and continuity of Lima's water supply in the long-term, cooperation between public and private actors is being strengthened. The German contribution provides technical support, facilitates knowledge transfer and promotes the idea of a shared public-private responsibility. The project works closely with the consortium of the consulting companies AMBERO and GITEC.

- **Establishment of a water observatory.** In cooperation with private and public stakeholders, the formation and operation of a water observatory are promoted. The observatory uses modern technologies to provide information to decision-makers, such as the newly created watershed commission of the rivers Chillón, Rímac and Lurín. This is a crucial condition for an integrated water management in times of climate change.



Left: Water observatory.

Right: Students planting trees in San Juan de Miraflores..



The Rímac river in Lima.

- **Multisectoral public-private projects.** Public-private partnerships promote the involvement of companies in the preservation of water resources. Initiatives that contribute to climate change adaptation are set up, benefiting both businesses and the general public.
 - **Reuse of treated wastewater.** Together with the water utility SEDAPAL, strategies and measures for the reuse of treated wastewater are being developed in the cities of Lima and Callao.
 - **Strategies for climate change adaptation.** Private sector partners, SEDAPAL, as well as regional and local governments are supported in developing climate change adaptation plans. Current challenges are identified and appropriate adaptation measures are integrated into each institutions' activities.
 - Four public-private climate change adaptation initiatives have been developed and are currently being implemented in urban districts and rural communities suffering from extreme water shortages. Thereby, innovative opportunities with leverage effect for joint action in times of climate change are demonstrated, which save money and water – water that can be used more meaningfully elsewhere, for example, for the drinking water supply or irrigation of public green spaces.
 - Twelve parks in different districts of Lima are irrigated with treated wastewater. An additional 76,400 m² of public green spaces will be added. This saves valuable drinking water and improves the quality of life of the population.
 - Five local municipalities and SEDAPAL are sensitized for climate change adaptation and are currently working on climate adaptation plans. Adaptive capacities and resilience to disasters are strengthened. The institutions are prepared for upcoming extreme weather events (drought, heavy rainfall, floods).
- Results**
- The water observatory of Lima's watersheds was founded in July 2016. The information provided and prepared by the observatory enables the watershed commission of the rivers Chillón, Rímac and Lurín to make decisions based on reliable data, ensuring knowledge-based water management.

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Adaptation of urban water resources management
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Av. Los Incas 172 - Piso 5
San Isidro, Lima 15073, Peru
T +51 (1) 222 0779 / 222 0990
proagua@giz.de
www.giz.de

Author

Dr. Hans-Werner Theisen

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Addresses of
the BMZ offices

BMZ Bonn
Dahlmannstraße 4
53113 Bonn, Germany
T +49(0)228 99 535 - 0
F +49(0)228 99 535 - 3500

BMZ Berlin | Im Europahaus
Stresemannstraße 94
10963 Berlin
T +49(0)30 18 535 - 0
F +49(0)30 18 535 - 2501

poststelle@bmz.bund.de
www.bmz.de