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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 Chillón, Rímac and Lurín rivers. Climate-related fluctuations in the available volume of water and the increasing water demand are already leading to serious seasonal water shortages. Pollution from mining, unregulated waste disposal and industrial and domestic wastewater discharges further affect available water resources. The resulting challenges – such as scarce water resources, uncontrolled withdrawals and increasing pollution as urbanisation increases – are aggravated by the consequences of climate change. Without the involvement of all relevant public and private stakeholders, the reliability of the water supply in the Lima metropolitan area cannot be ensured.

Objective

With involvement of the private sector, water resources management in the Chillón, Rímac and Lurín river basins has been oriented towards climate change adaptation.

Approach

The project advises the Peruvian National Water Authority on improving the water management in the Chillón, Rímac and Lurín river basins. In order to ensure the quality and continuity of Lima´s water supply in the long term, the project strengthens cooperation between public and private actors. The German contribution provides technical support, facilitates knowledge transfer and promotes the concept of public-private stewardship. It cooperates closely with the consortium of the consulting firms AMBERO and GITEC.

Title	Adapting urban water resources management to climate change with private sector participation (ProACC)
Commissioned by	German Federal Ministry for Economic Cooperation and Development (BMZ)
Country	Peru
Lead executing agency	National Water Authority (Autoridad Nacional del Agua - ANA)
Overall term	06/2014 to 05/2019

- **Establishment of a water observatory.** In collaboration with the relevant private and public sector actors, the project promotes the establishment and operation of a water resources observatory. This observatory uses modern technology to provide information on local water resources to decision-makers. This is a crucial prerequisite for achieving integrated water management in times of climate change.
- **Multi-sectoral public-private projects.** Development partnerships with the private sector encourage the involvement of private companies in the protection of water resources. The project promotes initiatives that contribute to climate change adaptation, benefiting both companies and the public good.
- **Reuse of treated wastewater.** In cooperation with Lima's water and sanitation utility SEDAPAL, the project develops strategies and measures for reusing treated wastewater in the cities of Lima and Callao.

Left: Water observatory.

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

Photo: © GIZ

The Rímac river in Lima.

- **Strategies for climate change adaptation.** Private sector partners, the city's water utility SEDAPAL and local governments are supported in developing climate change adaptation plans. Together with private partners, current challenges are identified and corresponding adaptation measures integrated into activities.

Results

- The water resources observatory for Lima's river basins was founded in July 2016. The information provided and prepared by the observatory allows the watershed commission of the Chillón, Rímac and Lurín rivers to take decisions based on reliable data, ensuring knowledge-based water management.
- The project developed four public-private initiatives for climate change adaptation in urban districts and rural communities suffering from extreme water shortages. These initiatives are currently being implemented. Thereby, innovative methods that generate leverage for joint action in times of climate change are demonstrated that save money and water – water that can be used more meaningfully elsewhere, for example for the supply of drinking water or the irrigation of green areas.
- Treated wastewater is being used to water 12 parks in various districts of Lima. This saves valuable drinking water and improves the quality of life of city residents. This type of irrigation is also being planned for a further 76,400 m2 of green areas.
- Nine local municipalities and the water utility SEDAPAL are sensitized for climate change adaptation and have developed corresponding adaptation plans. The project strengthens the adaptation capacities and resilience of these institutions with respect to future extreme weather events such as droughts, heavy rainfall or flooding.

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