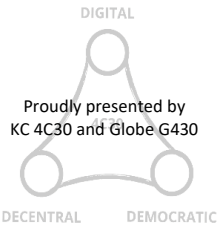


Early warning system for potable water supply



Potential Climate/ Disaster Impacts addressed and Justification for this Approach

Peru is a country with a highly vulnerable population. Ecosystems, too, are vulnerable to climate hazards, having seven of the nine vulnerability characteristics identified by the United Nations Framework Convention on Climate Change (UNFCCC). Moreover, 62% of the country's population lives in the Pacific watershed (desert area) with only 2,2 % of total water resources, whereas the Atlantic watershed accounts for 34% of the total population with 97,3 % of total water resources and the Titicaca one makes up 4% of the total population with 0,6 % of total water resources. In this context, many water utilities struggle to deliver basic and equitable water and sanitation services, as well as meet the Sustainable Development Goals (SDG 6) and the Paris Agreement. Growing urbanization pushes an increasing demand for water resources, bringing additional challenges to cities that are already under water shortages. Moreover, expected climate change and extreme events will worsen existing problems as well as bring new ones. These hazards will increasingly require proactive planning and implementation of adaptation measures for delivering sustainable water and sanitation services. By means of an early warning system, located at the Poechos dam's outlet, the water utility of Piura city (GRAU) has increased its drinking water treatment plant's response capacity up to 24 hours.

Process of Implementation

Supported by the project, an integrated Scadaweb system is used for on-line monitoring of operating data i.e. turbidity and flow-rate. A control center is running for analysis and forecasting of the climate hazards as well as communication of warnings to GRAU's staff. The project is training GRAU's practitioners to learn how to receive, interpret and respond to the warnings.

Results and Impacts

The water utility of Piura has installed an early warning system. Around 335.000 people have reduced their risk of lack of water supply.

The water utility is replicating this warning system in other localities such as Sullana and El Arenal.

Reaction time, due to extreme events that affect the quantity and quality of the water source, has increased from 0 to 24 hours.

The water utility has created a new unit for water resources control and management and has already implemented preventive maintenance measures.

Project Title

Programme for Modernisation and Strengthening Water and Sanitation Sector II

Project Number

2014.2173.4



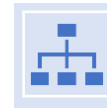
TYPE OF APPROACH

Implementation of technical solution



COUNTRY

Peru



LEVEL OF INTERVENTION

city



TYPE OF RISK MANAGEMENT

prevention, resistance



MAIN HAZARDS ADDRESSED

Flood, Drought



URBAN FUNCTION PROTECTED

Basic existential functions (water, electricity, etc.), Economic opportunities/ jobs / work environment



SPHERE OF INTERVENTION

socio-political sphere/ governance, environment



RESOURCES REQUIRED

18-month national specialist (1) and 2-month national consultant (Scadaweb development); equipments supply and installation service for an amount of 215.000 EUR



COOPERATION PARTNERS

The water utility of Piura city (GRAU utility), the operator of the dam (Special Project Chira - Piura).