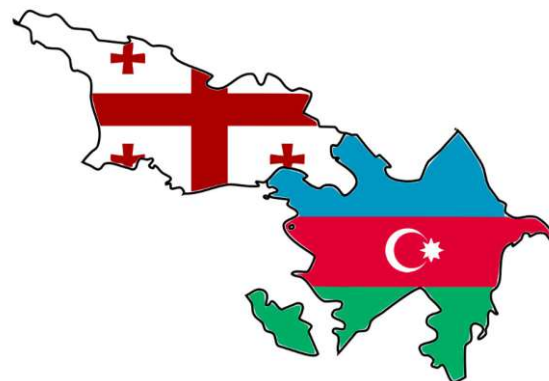


Groundwater monitoring system



The work is part of a larger project aimed at advancing Integrated Water Resource Management (IWRM) throughout the Kura river basin through implementation of agreed national and transnational actions and plans. The Strategic Action Plan (SAP) is based on four objectives:

- sustainable use of water resources to guarantee access to water and preserve eco-systemic services;
- access to clean water for present and future generations;
- maintaining ecosystem status by providing essential and sustainable environmental and socio-economic services in the basin;
- mitigation of negative impacts deriving from floods and climate change on infrastructures, riparian ecosystems and communities.

Summary

Location: Georgia and Azerbaijan

Conclusion: 2020

Focus: Goudwater quality

Sfide: Groundwater monitoring system in Georgia and Azerbaijan

CAE's solution:

6 sites for the measurement of:

- flow;
- water level;
- water temperature;
- Total Dissolved Solids (TDS);
- electrical water conductivity;
- PH.

Transmission System;

2 workstations (1 per Country) with data collection and analysis software.

FEATURES

To achieve these goals, Georgia and Azerbaijan will, among other things, need to "Improve the use of science for governance by strengthening monitoring, information management and data analysis systems for IWRM". This will increase safety applied to water/food/energy/ecosystem, as well as adaptation to climate change, including combined uses of groundwater and surface water.

CAE has created a monitoring system of the groundwater in the basin which helps to improve the assessments on the geographical distribution of the same.

The above-mentioned monitoring system will be used as a pilot to test the efficiency and effectiveness of the use of this technology in groundwater management.



COMPOSITION

The system consists of 6 sites (3 in Georgia and 3 in Azerbaijan) equipped with:

- Master datalogger;
- transmission system;
- solar panel and battery;
- monitoring sensors for the measurement of:
 - flow;
 - water level;
 - water temperature;
 - Total Dissolved Solids (TDS);
 - electrical water conductivity;
 - PH.

2 workstations (1 per Country) with data collection and analysis software.

Two training days on the operation of the proposed system and its maintenance activities were also offered for 8 representatives of the Groundwater Management Authorities of Georgia and Azerbaijan.

