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## Environmental Protection of International River Basins Project



A project implemented by a Consortium  
led by Hulla & Co. Human Dynamics KG

### Pilot project fiche Pilot project 5 in Georgia (PPGE05)

<b>Country</b>	Georgia
<b>Name</b>	<i>Design, Construction and Installation of Groundwater Monitoring Network in the Chorokhi-Adjaristskali Pilot Basin District of Georgia</i>
<b>Contact person:</b>	Zurab Jincharadze <a href="mailto:zurab.jincharadze@blacksea-riverbasins.net">zurab.jincharadze@blacksea-riverbasins.net</a>
<b>Budget</b>	<b>11,000 Euro</b>
<b>Timing</b>	<b>16 May 2016 – 16 Jul 2016</b>
<b>Short description</b>	<p>The overall objective of the project was assisting the key project beneficiaries in Georgia, namely Ministry of Environment and Natural Resources Protection of Georgia and its subordinate body - National Environmental Agency, as well Environmental Directorate of Ajara Autonomous Republic, to establish monitoring network for groundwater springs in the Chorokhi-Ajaristskali pilot basin.</p> <p>The project consisted of three phases - Preparation, Implementation and Maintenance:  <u>Phase 1</u> - Preparation: i) cost-estimation for construction of weirs; ii) detailed design drawings of the construction sites; iv) procurement plan of necessary equipment and construction material  <u>Phase 2</u> - Implementation: i) procurement of monitoring equipment; ii) construction of 6 weirs; iii) installation of GW monitoring equipment (water level sensors, barologgers, other necessary devices)  <u>Phase 3</u> - Maintenance: i) adjustment of sensors and data loggers; ii) field-check and certification</p> <p>Special weirs were installed in the springs which are particularly useful in measuring the flow of small streams and springs in isolated areas. New groundwater monitoring installations will allow collecting baseline data on spring water levels, ranges of flows, and quality, thus will improving decision-making in ground water management. Weirs are equipped with electronic water level, temperature, pressure and flow measurement devises. Overall, the following six spring weirs were constructed and modern monitoring equipment installed at the following locations of the Chorokhi-Ajaristskalibasin Basin:</p> <ol style="list-style-type: none"> <li>1. Spring at Buturauli village, Shuakhevi District</li> <li>2. Spring at Chaltiza village, Shuakhevi District</li> <li>3. Spring at Purtio village (pain forest), Shuakhevi District</li> <li>4. Spring at Shevaburi village, Keda District</li> <li>5. Spring at Kuchula village, Keda District</li> <li>6. Spring at Jocho village, Khelvachauri District</li> </ol>

<p><b>Map</b></p>	<p><b>GROUNDWATER MONITORING - CHOROKHI-ADJARISTSKALI PILOT BASIN, GEORGIA</b></p> <p><b>Monitoring points (Identification number)</b></p> <ul style="list-style-type: none"> <li>G101 Ascending spring</li> <li>G102 Well</li> <li>G400 Monitoring spring - selected</li> <li>G401 Monitoring spring - not selected</li> </ul> <p><b>LEGEND</b></p> <p><b>Settlements:</b></p> <ul style="list-style-type: none"> <li>● All Capital</li> <li>○ District center</li> </ul> <p><b>Borders:</b></p> <ul style="list-style-type: none"> <li>— State</li> <li>— Adj. Republic</li> </ul> <p><b>Roads:</b></p> <ul style="list-style-type: none"> <li>— Highway</li> <li>— Motorroad</li> </ul> <p><b>Hydrography:</b></p> <ul style="list-style-type: none"> <li>— River</li> <li>— Independent river</li> <li>— Canal</li> <li>— Lake/Reservoir</li> <li>— Swamp</li> </ul> <p><b>Geological units:</b></p> <ul style="list-style-type: none"> <li>G101: Pleistocene - sedimentary deposits of middle Eocene in the coastal area, river valleys, and intercalaneous areas, full-sorted, full-sandstone, fully, sandstone, dark, yellow and grey gyttja</li> <li>G102: Separately spread groundwater in situ in Quaternary sediments (loam, silt, sand, clay) underlain by volcanic-sedimentary rocks of middle Eocene</li> <li>G103: Recent marine and alluvial aquifers (pebbles, gravel, sand, clay)</li> <li>G104: Recent alluvial aquifers in the river valleys (pebbles, gravel and sand)</li> <li>G400: Water bearing complex of upper Miocene-lower Pliocene (sandstone and loam)</li> <li>G401: Shallow groundwater in bog deposits (silt, sand, clay, loam with interlayers of peat)</li> <li>G402: Water bearing sedimentary complex of middle Pliocene (conglomerate, sand, sandstone, clay)</li> <li>G403: Intrusive formations of middle Eocene (syenites, diorites)</li> <li>G404: Recent marine aquifers of the coastal zone (sand and gravel)</li> </ul> <p><b>Map Scale For A3 : 1 : 250 000</b></p> <p><b>Environmental Protection of International River Basins Project</b> Contract No. 2011/279/000</p> <p><b>human</b> Geomatics</p>
<p><b>Outputs</b></p>	<ul style="list-style-type: none"> <li>• Design report that includes: i) cost-estimation for construction of weirs; ii) detailed design drawings of the construction weirs; iv) procurement plan of necessary equipment and construction material</li> <li>• Procurement of monitoring equipment;</li> <li>• Construction of 6 weirs;</li> <li>• Installation of GW monitoring equipment (water level sensors, barologgers, other necessary devices)</li> <li>• Adjustment of sensors and data loggers;</li> <li>• Final report, detailing the project implementation, challenges and lessons learned, and recommendation for future maintenance</li> </ul>

Photos

