



6TH INTERNATIONAL CONFERENCE ON KNOWLEDGE & INNOVATION IN ENGINEERING, SCIENCE & TECHNOLOGY

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Rioni River Water Management System – Irrigation and Water Supply Problems

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ABSTRACT

The Rioni River is the most affluent river in Georgia. Its basin area is 13,400 km². In the mid-flow of the basin, Kolkheti lowland, important cities are located - Kutaisi and Samtredia, rural settlements around them, as well as agricultural lands. This area is distinguished by the best soil and climate conditions for growing tea, cereals, vegetables and fruit crops. From 50s of XX century several irrigation systems were created in the region. Irrigation canals are supplied with water from the rivers Rioni, Gubistskali and Tskhenistskali and irrigates 38,283 ha of land. In addition to irrigation, Rioni water was used to supply water to the city of Kutaisi, but over time, it did not fully meet the needs of the growing population of the city, and 24-hour water supply still remains as a problem. Due to the difficult financial situation since the 1990s, most of the channels are no longer in operation, as a result, we have a shortage of water resources on irrigated lands, water losses from damaged canals, which negatively impact the region's crop yields, reduced land use, increased economic poverty, increased water use needs. The topic is about finding alternative ways to solve the problems listed above, which is the result of complex research.

Keywords: agriculture; canal; irrigation; management; water



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