

Current situation of the mobilization of water resources by the large dams in the northern-central part of Algeria

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Aware of the challenges in the management of water resources, Algeria took important measures to try to go out and to attenuate the situation of water stress which touches the country. With a view to palliating water stress and satisfying needs in water to assure the socio-economic development of the region, big means were implemented to mobilize new resources in water.

With a focus on sustainable development-based management, we have undertaken a study on the impacts of dams in northern-central part of Algeria. This can serve as an assessment to the sustainability of sprayed solutions, following by a proposal resource mobilization strategy in the region, by the major hydraulic structures.

The Isser watershed area is 4 148 km² including the largest watercourse that are the Isser and its tributaries, Mellah, Kherza, Bouhamoud and Djemaa, which several large dams have been planned. The assessment of the current situation of hydraulic system in the region shows great inter-year storage potential of 649.41 million m³ through three dams in operation. These works allow to regular 236.7 millions m³ annually for mean annual flow in the order of 410 millions m³. However, the loss of water caused by evaporation, leakage and spill lose an equivalent of 61% volume of water inputs at dams. According to hydraulic plan in the region a part of deficits can be reabsorbed by putting into service new projects of dams.

Nonetheless, the question of efficient of projected solutions are required, especially for adaptation the planning water resources to climate change and socio-economic development in the region.

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