

Challenges in Achieving Arab Water Security: Case Study - Nile River Basin

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Abstract

Most of the Arab regions suffer from water scarcity because of the geographical location of the dry and semi-arid regions of the globe, where there is little rainfall, high temperature and increased evaporation rates. For over 60 years, Arab countries have lost an important part of their water as a result of the Israeli occupation of some Arab lands, including fresh water sources such as the Golan Heights (Syria), the Jordan River and another part of the groundwater in the West Bank and Gaza. The majority of Arab countries are also facing a severe shortage of water resources due to population growth, the increase in the area of agricultural land, creation and development of new cities, and expansion of industrial activities. Water pollution and natural factors such as dry and semi-arid climate predominance in most parts of the Arab world are investigated. Surface external water accounts for 54% of the total renewable Arab water annually. The problems of water in the Arab world are exacerbated by external threats from non-Arab sources such as the tropical and ethnical sources of the Nile, which constitute 85% of the Nile River, and the Turkish ports of the Tigris and Euphrates rivers, which account for 52, 90% of the annual revenues of the two rivers respectively. This paper aims to: A) Shedding light on the Arab water balance and the general challenges to achieve Arab water security, focusing on the natural challenges in the countries of the sources of the Nile River, especially Ethiopia, which supplies the Nile River about 85% of the annual revenue estimated at 84 billion m³ in Aswan. B) Discuss the possibility of geological and geographical Ethiopia from the establishment of dams bone that affect the share of Egypt and Sudan water. C) Assessing the impact of existing or under construction water projects in Ethiopia on the water quota of Egypt and northern Sudan.

Keywords: Dry climate; Nile River; Renewable water.

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