

**Mystery of the permanent water cavities in the “Sebkha Imlili” located in a particular ecosystem- hydrological and hydrogeological characterization (Dakhla, South of Morocco)**  
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The aim of the study is to understand the hydrological and hydrogeological mechanisms that govern the “Sebkha Imlili” functioning. This Sebkha is very special and unique depression, located in South of Morocco about a hundred kilometers south of the Dakhla bay. It is distinguished by the presence of a large number of permanent water cavities with high salinity, and hosts a diverse flora and fauna including a remarkable species of fish, Tilapia Guinea. The climate is characterized by a marked aridity and scarcity of rainfall. The rainfall is extremely irregular, typical of the Sahara and extremely arid regions. The watershed is not well developed+ wadis flow only during intense rainfall events generating floods in upstream basins and sometimes roam the depression of the Sebkha by depositing fine material. Measurements of temperature and salinity were carried out on a relatively large number of cavities of water- The water temperature ranges from 20 to 33°C, the salinity varies largely between 30 and 100 g l. Two wells located around the Sebkha show water levels between 2 and 3.5 m, the groundwater temperature ranges around 23°C and the electrical conductivity of water varies from 5380 to 6840 IS cm. The area of the “Sebkha Imlili” contains important groundwater resources of varying quality flowing into an aquifer system of shallow and deep aquifers. We distinguish a multi-domain with carbonated formations and brackish water, linked to the Mio-Pleistocen-Quaternary and partly an area with artesian water, associated with cretaceous formations. Further studies are recommended as geophysical investigations to better understand the structure of the depression and exchange opportunities between hydrogeological cavities.

