

ABSTRACT

The water issue has posed a great challenge in the past twenty years in most Arab countries, including Iraq in particular, due to the establishment of many dams by Turkey, which led to a decrease in the annual rate of water resources and non-compliance with international law of trans-boundary water management. The west of Iraq is considered as an arid region and suffers scarcity of rain, which has led to severe drought and seriously affected water resources in terms of quality and quantity. In this study, a numerical model of water resources management for the Euphrates River is applied by using Water Evaluation And Planning (WEAP). Anbar Province is selected to apply this model, in order to assess past trends in water resources management and to simulate current demand scenarios which must be known for the decision-makers and water resources managers, namely the reference scenario and the water tax scenario. The results showed that the demand for water in the reference scenario (2040) will be 2819.35 million cubic meters per year while the corresponding demand in the other scenario will be 2639.54 million cubic meters per year, which amounts to 179.81 million cubic meters per year saving that can be exploited