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An Overview of Conventional and Non-Conventional Water Resources in Arid Region: Assessment and Constrains of the United Arab Emirates (UAE)

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ABSTRACT

The aridity, population growth, agriculture and industrial activities threaten the water resources in the United Arab Emirates (UAE). In UAE, groundwater quantity is reduced and its quality is also deteriorated due to the scanty of rainfall and over pumping for different uses. The deficit of groundwater is met by desalinated water and reused of treated wastewater. Agricultural activities have negative impacts on water resources and this causes reduction of groundwater quality as the agriculture the main land use in the UAE and it accounts for more than 70% of groundwater use. The treated wastewater is an alternative source for agricultural activities. To improve the current water situation, a national water resources strategy has been prepared and imple-mented to assist in achieve this target and maintain the country ' s water security. This paper intends to give an overview of water resources in the UAE with emphasis on challenges facing the management of these resources.

KEYWORDS

United Arab Emirates, Water Resources, Sustainability, Groundwater, Desalinated Water

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