

(2025) 222–224
doi: 10.5004/700107

WSTA 15th Gulf Water Conference
Water in the GCC, The Role of Technology in Effective Water Management
28–30 April 2024, Doha, Qatar

Climate change and water scarcity: strategies for sustainable agricultural water use in the Arab Region

Kamel Mustafa Amer

*Water Resources Advisor, Arab Organization for Agricultural Development (AOAD), 11 Al Islah Al Zeraie St.,
Co-Operative of Agricultural Reform Building, Dokki, Giza, Egypt
email: kamel.mostafa.elsayed@gmail.com*

ABSTRACT

Climate change represents a profound and ubiquitous challenge with particularly acute consequences in the Arab region. In this area, inhabitants confront escalating temperatures, shifting rainfall patterns, and increasingly frequent and intense meteorological phenomena. These alterations exacerbate the pre-existing critical issue of water scarcity. The arid climate, burgeoning populations, and brisk economic development intensify the pressure on water resources. The region's susceptibility to climatic shifts presents substantial hazards to the vital water supplies necessary for agriculture, potable use, and hygiene purposes. Studies indicate that the Arab region is warming at a rate surpassing the global average, jeopardizing the water security of over 360 million individuals. This predicament necessitates prompt action to alleviate the impacts and preserve water resources for future generations.

Keywords: Water scarcity; Climate change; Arab region; Agricultural water use; Sustainability; Innovative water management; Policy framework
