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**Economics of water under climate change in Arab countries:  
a policy perspective**

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**ABSTRACT**

The Arab region is one of the driest regions in terms of water availability, as the region is located in arid and sub-arid regions with low rainfall and high temperatures in summer, they are vulnerable to drought. and climate change is expected to heighten water stress in the region, with a reduction in precipitation and increased demand from competition users, particularly with rapid population growth and improving living standards. Water scarcity, particularly from an economic perspective, a very complex multidimensional issue due to the same resource may have different targets to attain including being a human right, socio-cultural, supporting ecosystems functioning, and being input to most economic activities. The diversity of uses as well as sources of water creates complex interlinked issues, especially when considering the energy, food, and environment, that need to be addressed simultaneously. From a policy perspective, water scarcity is typically dealt with in Arab countries by attempts to augment water resources using traditional and non-traditional sources. Water demand management still lags with limited efforts, with the classical focus of potable water pricing, for instance, is cost recovery, meaning trying to cover the cost of the process of water treatment and pumping, which implicitly assumes that the economic value of water as a natural resource is zero. The paper in hand intends to examine the implications of climate change on the economics of water security in Arab countries, attempting to identify potential management actions. It was found that there is a need to have a significant shift in policymaking concerning water management. Such a shift would require:

- Adopting a holistic integrative framework for sustainable development and water management.
- Incorporating economic valuation into water-related decision-making to resolve some of the resourcing and capacity issues challenges.
- Integrating various economic instruments, e.g., abstraction charges, water markets, tradable pollution permits, subsidies, and payments for environmental services, into water policies.

Such actions should be utilized to attain efficiency and equity among different water users including socio-cultural, economic, and environmental purposes.

**Keywords:** Arid and sub-arid regions; Water stress; Water scarcity; Human right; Socio-cultural; Energy; Food; Environment; Water demand management; Framework; Potable water; Climate change