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Virtual water: an effective mechanism for integrated water resources management

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ABSTRACT

In regions, which suffer from water shortage or potential water shortage like the Middle East, water policies and different mitigation measures are formulated. With the increasing population and increasing demand for food and drinking water with the fixed supply of water, the demand management policies have been introduced. Virtual Water has been adopted as an alternative or potential alternative water resource. In the application of the Integrated Water Resources Management (IWRM), virtual water has to be considered as a resource of water. In this paper, the practical value of the virtual water concept as well as the possibility of the application of the concept in the regional and national level are discussed. The paper emphasizes on the application of virtual water in agriculture products and virtual water trade of these products. This research concluded that, there is a possibility for the application of the virtual water concept on the national level taking into account water endowments, and other natural and social economic conditions. The virtual water strategy seeks ways to consciously and efficiently utilize the internal and external water resources to alleviate water scarcity. This, however, by no means implies that importing food is the only response the water scarce countries and regions should and can take. Other measures concerning the supply and demand sides of water management are imperative. The argument here is that the virtual water strategy should be an integral component in the whole package of integrated water resources management.

KEYWORDS

Virtual Water; IWRM; Global; Regional; Local; Strategy; Policy Option

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