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APPLYING A DECISION SUPPORT SYSTEM TO OPTIMIZE WATER MOVEMENTS: THE KING ABDALLAH CANAL AT THE JORDAN VALLEY

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ABSTRACT
A Decision Support System (DSS) is one of the essential tools that help decision makers, professionals and managers operate, control and take decisions on a sound and integral basis. Applications of a DSS are not limited to a certain sector or field, they reach most sectors, including the water management and planning field. This paper elaborates on the application of a DSS in Jordan, specifically to manage and operate the irrigation water demand and supply of the main water carrier in the Jordan Valley, the King Abdallah Canal (KAC). This canal extends from the upper part of the valley at Adasiya down to the Dead Sea with a total length of 110 km, connecting one of the most complicated irrigation and conveyance systems in the region. At present the Jordan Valley Authority (JVA), which is responsible for all the activities in the Jordan Valley, is operating and managing the water of KAC using the JVA Water Management Information System and JVA Hydraulic Model. After one year of implementing this project, there should be feedback and results that need to be analyzed and evaluated. This paper will focus more on the results and recommendations that will improve using the present DSS and make it a successful example for the country and the region.

Reference: Hasan, M., I. Hussein and S. Wahshah; Applying a Decision Support System to Optimize Water Movements: the King Abdallah Canal at the Jordan Valley, Journal of Environmental Hydrology, Vol. 8, Paper 10, May 2000.

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