

The Use of a Geographical Information System in the Field of Irrigation (Moyen-Chélif)

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Abstract : Irrigation is a limiting factor for agricultural production and socioeconomic development of many countries in the arid and semi-arid world. However, the sustainability of irrigation systems requires rational management of the water resource, which is becoming increasingly rare in these regions. The objective of this work is to apply a geographic information system (GIS) coupled with a model for calculating crop water requirements (CROPWATER) for the management of irrigation water in irrigated areas and offer managers an effective tool to better manage water resources in these areas. The application area of GIS is the irrigated perimeter of Western Middle Cheliff, which is located in a semi-arid region (Middle Cheliff). The scope in question is considerable agrarian dynamics and an increased need for irrigation of most crops.

Keywords : GIS, CROPWAT, irrigation, water management, middle cheliff

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