An Infrastructure of Spatial Data for an Efficient Management of Agriculture Water Need

Bachir ABLAT, Mohamed ROUCHDI, Assou MOHAMMI and Mohammed LAAROUSSI, Morocco

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SUMMARY

This paper presents the decision model which integrates systemic approach and spatial analysis for an efficient management of natural resources. Thus, this model is based on a multidirectional investigation that incorporates on one hand the organization of the decision process of the irrigated space using the systemic approach and on the second hand the definition of the aided decision cartographic process. This model tries to transform the reality to potential actions through the integration of "data - knowledge" and analysis "spatial – thematic" for the purpose of natural resources valorization by conciliating between science and practice. The application of this model for crop planning, taking into account crops response and water and soil quality provided encouraging results with regard to rational use of resources. Even though, these results justify the use of geomatic to monitor, control, and save the environment and thus enhance water management requests, still, geomatic is unknown for several users who continue undertaking non spatial methods for decision making.

For this reason, it would be useful, to build first a spatial data infrastructure which will assist users in terms of spatial information and will support the elaboration of the geomatic solution.