

Land Evaluation of Shoushtar's Abgah Watershed in Khuzestan province Using FAO Model

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Abstract

Ecological planning is the only logical solution to combat environmental crises and create the necessary conditions for sustainable development. To this end and using GIS, this research attempted to conduct an assessment of the suitability of plots of land located in Shoushtar's Abgah's watershed region for agricultural and Range management purposes according to the model presented by FAO. Since FAO-guided land assessment is an important step in land use planning, the information about the available sustainable resources of the target region was collected via carrying out reviews of the literature and field work. Based on the FAO model, the components of land units were identified and the dominant characteristics of lands were determined. The benchmark layers used in this study include soil, slope, geomorphology, erosion and land use, which were analyzed and processed in ArcGis 10.3 software. The results revealed that the studied region lacked the right potential for irrigated farming, dry-land farming and management. 79.78% and 75.54% of the land of the region was categorized as N2 for irrigated and dry farming, respectively. The management suitability category of the region was defined as N1 which could bring economical gains with advances in technology and improvement of the current conditions of the region.

Keywords: Evaluation, Watershed, FAO Model, Shoushtar, Khuzestan Province.