

DETERMINATION OF AN APPROPRIATE AREA FOR FLOOD – WATER SPREADING BY REMOTE SENSED DATA AND GIS IN THE TAGHAROOD CATCHMENT (IRAN)

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ABSTRACT

Inappropriate distribution of precipitation in arid area causes destructive floods and direct streams to the saline lands and playa. Hence, it seems necessary to control the floods and utilize them in those areas. One controlling is flood – water spreading and artificial recharge of ground water. Therefore, determining an appropriate area is an important stage of these projects. This research seeks on site selection for flood - water spreading in the Tagharood catchment basin. This catchment is 127,000 hectares. Land use and vegetation cover maps extracted from Landsat TM data (1991). Other maps such as slope, geomorphology, faults, soils and so on were digitized. This research attempts to determine potential area for flood - water spreading in this catchment by remote sensing and GIS. The polygons in each information layer were weighted by Binary, Boolean and Fuzzy logic methods in the ILWIS environment. Then the most appropriate area was deducted and selected area in three mentioned methods was compared.

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