

Ecological Capability Evaluation of Sharui Watershed for Forestry Land Use by Makhdoom Model and AHP Method

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Abstract

Forests areas of Iran in comparison with the world is very low and this low area is in demolition threat always. Hence, the remainder of these forests should be managed based on ecological capability evaluation. With regard to importance of subject, ecological capability for forestry in the Sharui watershed, Khuzestan province, was evaluated in 2015. For this purpose, the Makhdoom model and AHP method were used. Respectively in first, six information layers including elevation classes, slope, aspect, soil type, vegetation type and density were combined in GIS environment and the final map of environmental unites for forestry was created. Results showed that 197 hectares for forestry has one class capability and respectively 427, 594, 732, 1139, 956 and 115 hectare have the two, three, four, five, six and seven classes' capability. In the next step the most appropriate measures and options forestry development in the region were selected by using experts and the results of the prioritization criteria, sub-criteria and alternatives, was derived from the software Export Choice 11. The results showed that Among the main criteria of Forestry land use, Physical-chemical factors, Among the sub-criteria, land form, Sources of revenue, Landscape and vegetation type and density, and Among the alternatives, Slope, temperature, soil, river, forest, village, road, water transmission network and Handicrafts, Were more important.

Keywords: Ecological Capability Evaluation, Forestry, Makhdoom Model, AHP, Sharui watershed.