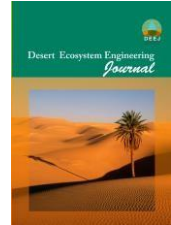




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## Evaluation of Current Condition of Desertification using ICD Model (Case Study: Kalmand Protected Area, Yazd)

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### Abstract

Nowadays, desertification is one of the ecological crises of the world. To control Desertification, having a clear understanding of its factors and processes is necessary. KALMAND Protected Area region of Yazd with area of 71269.37 Hectares' was considered to evaluate current Condition of desertification using ICD. Iranian Classification of Desertification (ICD) was presented by M. Ekhtesasi and S. Mohajeri in 1995. First of all, available data were collected and basic studies were done. The data were entered in GIS and basic maps were produced through interpretation of aerial photos and satellite images using Arc view software. Ten desert homogenous units were separated according to the studies and by overlaying Geomorphology, land use and vegetation cover maps. In next stage, effective factors in Desertification including three environmental factors, three anthropogenic factors, soil erosion Index, resilience potential and reconstruction of ecosystem were scored in a range of 0-10. Afterward, according to the sum of scores and comparing with table of desertification severity Index, final desertification map was produced. The result showed that based on ICD models, the areas is classified into low and moderated desertification. The environmental factors were determined as the main factor in desertification. Most main criterion in desertification of this region was Soil Degradation.

**Keywords:** Desert, Desertification, Current condition, ICD model, Environmental factor, anthropogenic factor.

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