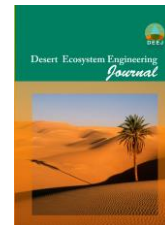




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## Comparison of MICD and MIDPA methods to investigate present status of desertification considering wind erosion criteria (Case Study: Fakhrabad, Mehriz Plain, Yazd Province)

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### Abstract

In order to deal desertification phenomenon it is necessary to identify its producing and increases causes. For this purpose several studies conducted inside and outside the country that have been led to submit regional models. Each of these models has different pattern and use different indicators which can lead to different results. In this study, Fakhrabad plain of Mehriz region by extent of over 39,370 hectares was selected. Whit emphasizing wind erosion criteria, that is the dominant process of desertification in the study area, the current status of desertification evaluated by IMDPA and MICD Iranian models and the results of two models ware compared. The results of this evaluation showed that in both IMDPA and MICD methods, the middle class of desertification has greatest area that is 88/3% and 81/4% respectively. Comparison of desertification scores and different classes of land use using regression comparison of standardized values revealed that correlation between the obtained scores is about 33% while this correlation between the severity classes of current desertification is 42%. Also comparison of similar values of the corresponding showed that classes of desertification in IMDPA model is less than MICD model which can be related to the different nature of models in using of the geometric and the arithmetic sum of the indices. It can be concluded that MICD model is suitable for large-scale (with more accuracy& the less area) and IMDPA model is more fitted for smaller scales (with more area, less accuracy) of capacity.

**Keywords:** The current status of desertification, IMDPA, MICD, Wind Erosion.

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