Abstract:

The phenomenon of desertification as deterioration processes of natural ecosystems And the potential reduction in arid and semi-humid Has caused its various forms in different regions of the Earth show. So yes, it covers all the areas involved with this issue would be very useful and beneficial. This field can be provided the way things and efficient management methods, reduce the severity of this phenomenon and even to prevent its spread. To achieve this goal first order aware of desertification processes; Resonator factor and its intensity. To can found a good model for understanding and controlling desertification. Therefore, identifying criteria᾿s and indicators to provide a model to demonstrate the severity of desertification and to determine the most important factors intended to prevent the spread of desertification factors is necessary .The present study was designed to assess the severity of desertification area 1140 hectares of fadishe, that is located in 32 kilometers to eshgh abad city from the west and in the middle part of the neyshaboor city in razavi khorasan state, was based on IMDPA model. This methodology is the latest methods and desertification model in Iran, by factulty of Natural Resources university of Tehran has provided in partnership, with the Forest and Rangelands organization. To apply the model, according to region conditions 4 criteria and 14 indicators for provide desertification intensity map of the area was used. Desertification criteria are including climate, vegetation, Soil and wind erosion. ArcGIS 9 software was used to analyze and prepare the layers of quality maps using the geometric mean to integrate the individual indicator maps. In turn the geometric mean of all 4 criteria quality maps was used to generate a desertification map of the study area. The results showed that 71.65 percent of the area located in medium class and 21.45 percent in low class and 6.9 percent in high class of desertification. wind erosion criteria with the average value of 2.14 in medium class and vegetation,soil and climate criterias respectively with the average value of 2.64, 3.47 and 2.42 are considered in high class of desertification. Among the indicators, Aridity index with the average value of 3.77 most effective and DSI index with the average value of 1.2 the least effective on desertification of chahhashem region.

Key words: Desertification, IMDDPA, criteria, indicator.

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Assessment of desertification potential using IMDPA model in fadishe of neyshaboor region

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