Change Detection of Khoor_e_khooran Harra Protected Area Using Remote Sensing and GIS

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Abstract
Protected areas, national parks and biosphere reservoirs are the natural heritage of any country. One of them is mangrove forests that need special conservations. This study aimed to assess area changes and the management role of mangrove forests in the Hormozgan province in Khoor_e_ khooran area between the Khamir port and Qeshm Island conducted in 2014. By using ETM^+ images of 2002 and OLI images of 2014, and by pre-processing via super wised classification, land use map has been extracted and finally 4 land use types has been identified in this region. The kappa coefficient and the overall accuracy was 99.91 % and 0.99% for ETM^+ results and 99.51% and 0.95% for OLI results sequentially. The results showed 11.76% decrease in forest region, 10.26% decrease in water covered regions, and 68.32% decrease in intertidal regions but 52.57% increase in arid lands. The causes of these decreases are human and natural destruction, but human destruction is the main cause. Because of the increase in unemployment, poverty and poor management, that case the lack of systematic planning and operation due to natural conditions and extremely over use of Khoor_e_khooran protected area and problems such as increased smuggling of fuel, oil pollution and land use changes in the region, excessive use of vegetation and etc, with proper planning and principles with regard to the carrying capacity of the region can be brought these problems to the lowest level.

Keywords: Change detection, Super wised classification, Mangrove forest, Remote sensing.