

Study of land use changes trend in Shadegan wetland using remote sensing and GIS and Offering management Solutions

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Abstract

Wetlands provide many values including flood prevention, water quality and wildlife habitat protection and soil erosion control. Detection of Changes in wetland is one of the basic requirements in management and assessment of natural resources. The purpose of this study is to evaluate and compare changes of the Shadegan International Wetland over the past two decades. Therefore, changes trend in the wetland and different phenomena with associated to it have been studied by Landsat images in Software Environment ENVI(4.7) using supervised classification and similarity algorithm methods over a 24 years period (2013-1990). Results show that the wetland area has decreased 8.5 percent during the 1990 to 2003 and 6.5 percent increase can be seen in the vegetation area of wetland from 2003 to 2013. Because of entering pollution load due to drainage water from agricultural and industrial units and outbreak of eutrophication. In this context, it is recommended preventing the entry of pollutants and ensuring water quality of Shadegan wetland by legislation property standards for water quality of the wetland.

Keywords: Shadegan wetland management, Land use, Satellite images, Supervised classification.