



University of Zabol

Graduate School

Faculty of Natural Resources

Department of Environment

**The Thesis Submitted for the Degree of master's degree in environmental
science and engineering**

**In the field of Environmental Science and Engineering - Land Assessment and
Planning**

Title:

**Investigating the change in land use and land cover of goatar Internatioal
Wetland after it was declared as an international wetland to evaluate the
conservation effects**

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Abstract

Wetlands are considered to be one of the most valuable and important ecosystems in the world and a storehouse of animal and plant genes after rainforests. For this reason, it is necessary to protect and constantly monitor their changes in order to prevent the continuation of destructive factors. In this study, the land use and land cover changes of Goatar International Wetland after being registered in the Ramsar Convention were investigated to evaluate the conservation effects. In 1378, this wetland became a member of the Ramsar Convention for protection. One of the magical phenomena of this area that attracts a lot of attention is the existence of its mangrove forests. The study was conducted using images from Landsat 5 and 8 satellites. The images were carefully selected without clouds and noise, and had the same capture time, and the water was at its lowest state. Investigations were carried out on the images of 1998, 2011 and 2022 using unsupervised and supervised classification methods and comparison after classification with the help of ArcMap software. The results showed that during the study period, mangrove forests had a growing trend, so that its area was increasing in all the studied years. And Uses such as water, salt marshes, and pastures are also improving, and only among these, the use of barren lands has increased, which should be paid attention to. And overall, it shows the positive results of protection.

Keywords: Goiter International Lagoon, Remote Sensing, Comparison after classification, Protection effect.