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The Thesis Submitted for the Degree of M.Sc

Evaluation of ecosystem services of Sahlabad plain of Nehbandan

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Abstract

An ecosystem service is one that provides an ecosystem for its beneficiaries. Considering the water conditions and environmental conditions in arid and semi-arid areas, these services are more protective of people's lives on the one hand and cause more damage on the other hand. In order to protect ecosystems and plan to benefit from their services, ecosystem service assessment is used as a method to reduce the negative consequences of unsustainable resource management. Due to being located in a dry area, the Sahlabad plain of Nahbandan has valuable functions in the direction of supporting the beneficiaries of the region. For this reason, it is important to model and evaluate the ecosystem services of this plain. In order to show the most important functions of this plain, the ecosystem services of Sahlabad plain including providing water resources, bird habitat and providing the possibility of nature tourism were evaluated. For this purpose, the land use and land cover map of this plain was obtained using satellite images. Then this land use and land cover map was used as an ecological base map along with other ecological information to prepare a map of water resources, bird habitat and vegetation. Water resources and vegetation were used as inputs to calculate the potential tourism index. The bird habitat map was obtained using the multi-criteria decision making method. . Then, the results obtained for each of the ecosystem services of water resources, bird habitats and providing the possibility of tourism were suggested to determine the areas that are more capable of providing these services for the implementation of management and protection programs.

Keyword: Ecosystem, habitat, nature, tourism, User, land cover