

Evaluation of Miangaran Wetland Ecosystem Services of based on DPSIR to formulate management strategies

Hossein Kianpour¹

Soolmaz Dashti^{2*}

Roshana Behbash³

1. Department of Environment, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran.

2. Associate Professor, Department of Environment, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran.

3. Assistant professor, Department of Environment, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran.

***Corresponding author:**

solmazdashti@gmail.com

solmazdashti@iauahvaz.ac.ir

Received date: 2020.11.23

Reception date: 2021.03.12

Abstract

In recent decades, wetlands have been exposed to a wide range of threats. Assessing these threats is essential to develop understanding the state of a wetland ecosystem and develop an appropriate management strategy. The purpose of this study was to identify and evaluate pressure factors in Miangaran wetland and to investigate the effects of these pressures on wetland ecosystem it also examines its status and finally presents management strategies in the region. To achieve this goal, using the driving force, pressure, status, effect and response (DPSIR) model, the threats and environmental values of the wetland, including ecological, hydrological, economic and social, were investigated. Finally, a strategic management was developed for each threat. According to the results of this study, 12 driving forces including agriculture, villages around the wetland, wetland ownership, land use of the wetland, irrigation plan, tourism, fishing, destruction of wetland vegetation, preying birds, depth of the wetland, blocking waterway and drought, has been identified in the area. These driving forces create 17 pressures in wetland and these pressures affect the condition of the wetland and cause decrease or loss of wetland ecosystem services. They also directly affect the production, regulatory, support and cultural effects. As a result, it can be stated that the wetland ecosystem services are directly due to the impact of the driving force. Most pressures are from the villages around the wetland. Therefore, for protection of Miangaran wetland, the most important management strategies include eliminating illegal activities, planning wetland protection, preparing the ecological zoning plan of the wetland, preventing the entry of municipal sewage, constructing landfills in places farther from the wetland, patrolling and further monitoring of the area and equipping environmental checkpoints with firefighting equipment.

Keywords: Ecosystem Services, DPSIR, Miangaran Wetland, Ecosystem Status, Environmental Threats.