

## Ulmagol wetland integrated management solutions for wetland restoration

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### Abstract

Wetlands are among the most valuable ecosystems because they provide many ecosystem services and also they are the most sensitive ecosystems in the world. Therefore, preservation and maintenance of these ecosystems and their life conditions is necessary. Iran has 24 wetland complexes, from which, Ulmagol wetland was selected for sustainable management planning, because of its special conditions and important bird site. This study has been done between 2012-14. For determination of inner and outer factors, three methods were used: field actions, interview with 15 managers and experts that were aware of wetland management process, and questionnaire application. Due to the adaptation of strategic analysis (SWOT) with ecological conditions in study area and the high accuracy in providing useful management strategies based on environmental factors, this model was used in this study. The results showed that the aggregate intrinsic factors were equal to 0/11 and aggregate external factors were 0/17, these conditions were sufficient to put Ulmagol wetland in SO state. These three strategies were identified as: Rehabilitation and restoration of wetland structure (SO1), Development of Wetland Ecotourism (SO2), and Community empowerment for participatory management of wetland (SO3). To prevent managers and decision-makers confusion, The Quantitative Strategic Planning Matrix (QSPM) was used for the highest priority with Community empowerment for participatory management of wetlands. The results of this analysis showed that the greatest impacts occurred at 5 percent level in SO3 strategy. The results also depicted that this strategy can be considered as the best priority in the future for sustainable use, which gains the highest score in QSPM method that means it has a high suitably.

**Keywords:** Ulmagol wetland, SWOT, sustainable use, QSPM, strategy management.