

Preserving Wetlands: Legal and Ecological Challenges in the Face of Degradation: The Case Study of Miankaleh, Iran

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Abstract : Wetlands are essential guardians of global ecosystems, yet they remain vulnerable to increasing human interference and environmental stress. The Miankaleh wetland in northern Iran, designated as a Ramsar Convention site, represents a critical habitat known for its rich biodiversity and essential ecological functions. Despite the existence of national and international environmental laws aimed at preserving such critical ecosystems, the regulatory frameworks in place often fall short in terms of enforcement, monitoring, and overall effectiveness. Unfortunately, this wetland is undergoing severe degradation due to overexploitation, industrial contamination, unsustainable tourism, and land-use alterations. This study aims to assess the strengths and limitations of these regulations and examine their practical impacts on Miankaleh's ecological health. Adopting a multi-method research approach, this study relies on a combination of case study analysis, legal and literature reviews, environmental data examination, stakeholder interviews, and comparative assessments. Through these methodologies, we scrutinize current national policies, international conventions, and their enforcement mechanisms, revealing the primary areas where they fail to protect Miankaleh effectively. The analysis is supported by two satellite maps linked to our tables, offering detailed visual representations of changes in land use, vegetation, and pollution sources over recent years. By connecting these visual data with quantitative measures, the study provides a comprehensive perspective on how human activities and regulatory shortcomings are contributing to environmental degradation. In conclusion, this study's insights into the limitations of current environmental legislation and its recommendations for enhancing both policy and public engagement underscore the urgent need for integrated, multi-level efforts in conserving the Miankaleh wetland. Through strengthened legal frameworks, better enforcement, increased public awareness, and international cooperation, the hope is to establish a model of conservation that not only preserves Miankaleh but also serves as a template for protecting similar ecologically sensitive areas worldwide.

Keywords : wetlands, Ramsar convention, tourism, industrial pollution, land use changes

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