



Mapping Ecosystem Services in the Jordan Valley, Jordan

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In the last decade researchers started using ecosystem services as a new framework to understand the relationships between environment and society. Habitat quality and water quality are related with ecosystem services regulation and maintenance, or even provision. According to the Common International Classification of Ecosystem Services (CICES) both habitat quality and water quality are associated with lifecycle maintenance, habitat and gene pool protection, and water conditions, among others. As there is increased pressure on habitats and rivers especially for agricultural development, mapping and evaluating habitat and water quality has important implications for resource management and conservation, as well as for rural development. Here, we model and map habitat and water quality in the Jordan Valley, Jordan.

In this study, we aim to identify and analyse ecosystem services both through 1) habitat quality and 2) water quality modelling using InVest, an integrated valuation of ecosystem services and tradeoffs. The data used in this study mainly includes the LULC, Jordan River watershed and main threats and pollutants in the study area, such as agriculture, industry, fish farms and urbanization.

Results suggest a higher pressure on natural habitats in the Northern region of the Jordan Valley, where industry is dominant. Agriculture is present along the Jordan Valley and limits the few natural forested areas. Further, water pollution is mainly concentrated in disposal sites due to the low flow of the Jordan River. Our results can help to identify areas where natural resources and water resource management is most needed in the Jordan Valley.

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