

# **GIS and Remote Sensing-based Approach for Desert Risk Reductio**

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## **Abstract**

Combating desertification includes having an accurate knowledge on the existing land degradation status and the amount of the potential risk. The remoteness, size and harsh nature of the world's desert make it expensive and difficult to map or monitor this landscape or to determine the effect of the land use on them. Using the combination of Geographic Information system (GIS) and remote sensing (RS) techniques, this study tried to detect the changes in the land surface which may enable us to determine the existing land degradation and identify suitable sites for dams. The thematic maps extracted based on Normalized Differential Vegetation Index (NDVI) and Land Degradation Index (LDI) should be useful to identify and determine the priority of the areas with the highest potential for rainwater harvesting.