

MS Thesis
Department of Environmental Science and Policy
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Title: Comparative Study of Tourism Development in Hurghada and Sharm El Sheikh, Egypt, to Assess Its Impact on Coral Reefs

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ABSTRACT

Coral reefs in the Red Sea have a high biodiversity with high level of endemism. The corals are important to many species by providing feeding and nesting sites. For local communities, this ecosystem provides a source of food, shoreline protection, and economic revenue through tourism. Recently, Egypt's cities located on the Red Sea have experienced major urban development and an increase in tourist activities that endanger the coral reef ecosystem in that region. An accurate and effective tool to monitor the coral reefs is needed to better assess the impact of touristic activities and improve management of the ecosystem. Remote sensing has proved to be a time- and cost-effective method to map coral reefs. The main objective of this study is to compare the capability of Landsat 8 OLI and Sentinel-2 in mapping shallow coral reefs in Ras Mohammed in Egypt and identify the sensor with highest accuracy for better long term monitoring and evaluation.