

# **Abstract**

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## **Modelling of Coral Reefs Damage Assessment in Egypt**

Coral reefs are the most biological systems productive and versatile on the surface of the planet earth, which is a source with economic and social returns great for the country that God-given this natural wealth either through tourism activity fishing with protecting the coastline from Sacrifice factors and thus protects all its coastal facilities. Egypt is home to some of the most spectacular coral reefs and associated marine life in the world. Egypt has enacted laws and takes effective measures for the protection and management of coral reefs and associated ecosystems in the Red Sea and its Gulf to characterize these areas of the richness and diversity of coral reef environment is scarce to be repeated elsewhere in the world. Coastal tourism is the largest sub-sector within the Egyptian tourism market. While coastal tourism depends largely on intact reefs, it is also the single most important cause of reef degradation in Egypt. Over the last two decades live coral cover has declined in Egypt. Egyptian Environmental Affairs Agency (EEAA) implements its own methodology to estimate the coral reefs impacts as a result of the destruction of coral reefs due to ship aground anchorage. Referring to the EEAA approaches applied in Egypt, this paper focuses on and presents the modelling of the destruction of coral reefs due to the collision and the ship ground damage assessment in case of oil spills in Egyptian coastal water.