

# Hydrographic Surveys – A Reconnaissance Tool for Marine Resource Management

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## Abstract

Hydrographic surveys have been used as a reconnaissance tool in various marine related infrastructural development, shipping, port establishment, marine trade, oil exploration and marine environmental studies. The geospatial technology has spread its arms in multidimensional perspectives towards qualitative and quantitative outputs. With the change in technology and need of the marine world, the hydrographic survey techniques have been improved by adopting latest geospatial techniques and precise instrumentation.

The river basins are highly potential sources of marine natural resources like oil and gas, minerals and gas hydrates. For example, Krishna Godavari (KG) basin is known for its rich hydrocarbon resources. Cuddapah basin in Andhra Pradesh, endowed with rich mineral wealth, is one of the important and fairly well studied geological units in peninsular India. It is wise to conduct reconnaissance survey prior to any detailed geophysical surveys for exploration. The bathymetric survey data will give the information about the feasible structures, their existence and extent. The bathymetric data pertaining to the KG basin and Kaveri Basin, Mahanadi and Hugli river areas was published in Indian -----

----- In this paper, the key role played by the INHO (Indian National Hydrographic Office) through its high accuracy bathymetric surveys for the marine infrastructure development, marine trade, marine resource exploration and environmental studies will be enumerated.

**Key words:** Reconnaissance, hydrocarbon, geophysical surveys, exploration, environmental studies, river basin

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