

ANALYSIS OF SEDIMENT ACCUMULATION AND DECUMULATION PATTERN BY MEANS OF BATHYMETRIC SURVEYS: A CASE STUDY IN BERUWALA FISHERY HARBOR

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Abstract

Hydrography is one of the main branches in surveying. In the modern world hydrography field plays a major role in safe navigation purposes and sea floor mapping. Bathymetry survey is the science of identifying and preparing charts about behavior of ocean's floor. Also, bathymetric data provides an important foundation for the process of generating profile of sea floor, charts for safe navigation, coastal area erosion, sea level variations and so on. Due to properties of sea water and sea bed the sediments are also travelling along the sea bed. Therefore, hydrographers should be collected hydrographic data for safe navigation purposes and other requirements. When we are moving to sediments transport along the sea bed, the process is happening due to water currents. Thus, sediments are travelling from one place to another place and sediments accumulation or decumulation can happen in some areas. Hence, infrastructure suffers from siltation which reduces the depth available for shipping at which, maintenance dredging is required. Accurate bathymetric data modelling is important to control the maintenance dredging in real time and to reduce the possible extra cost due to the unpaid over dredging. The present study mainly focused about sediment accumulation and decumulation pattern by means of bathymetric survey: a case study in Beruwala fishery harbor.

Keywords: Bathymetry, Hydrography, Sediments, Single Beam Echosounder