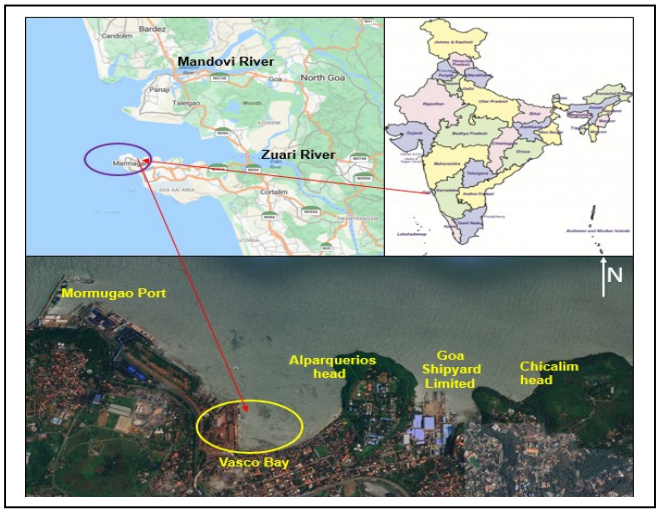
CENRAL WATER AND POWER RESEARCH STATION

MATHEMATICAL MODEL STUDIES FOR HYDRODYNAMICS AND SEDIMENTATION FOR DEVELOPMENT OF FISHING HARBOUR, PASSENGER JETTY, COASTAL CARGO BERTH AND BERTHS FOR INDIAN NAVY AND INDIAN COAST GUARD AT VASCO BAY.



STUDY OVERVIEW

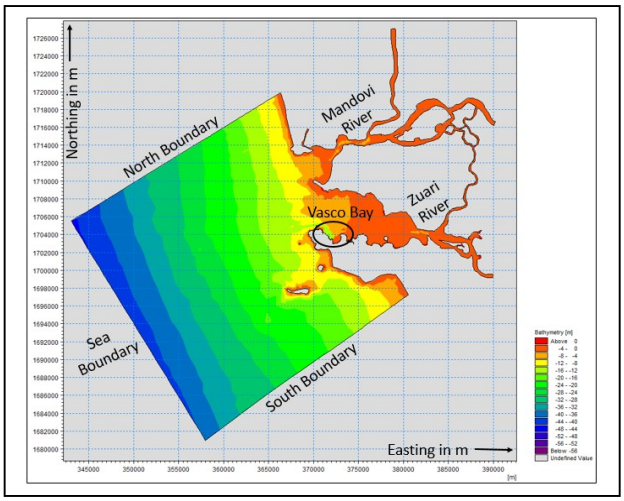
The project involves Hydrodynamic model studies for the development of fishing harbour, passenger jetty, coastal cargo berth for Indian Navy and Indian Coast guard. These development initiatives aim to enhance fishing and coastal activities in the surrounding areas and improve economic growth.

IMPACT

The Comprehensive model studies facilitate development of propose facilities for enhancing fishing and coastal activities in the surrounding areas and improve economic growth.

APPROACH

- To meet the objective, CWPRS carried out hydrodynamics and sedimentation studies in order to calculate capital and maintenance dredging quantities in propose area.
- In the proposed condition, the bay area will be dredged to depths ranging from 4.0 m to 13.1 m below CD.
- The volume of capital dredging required for the proposed development area is estimated to be approximately 1.55 Mcum



KEY FINDINGS

- In existing conditions, maximum currents in Vasco Bay area are of the order of 0.075 m/s in non-monsoon season and 0.08 m/s in monsoon season in the year 2024.
- Under proposed conditions, maximum currents in approach channel, in front of Berth Nos. 10 and 11 are of the order of 0.04 m/s in non-monsoon season and 0.035 m/s in monsoon season.
- The total annual maintenance dredging in the entire bay area (including both side areas) is of the order of 0.146 Mcum.