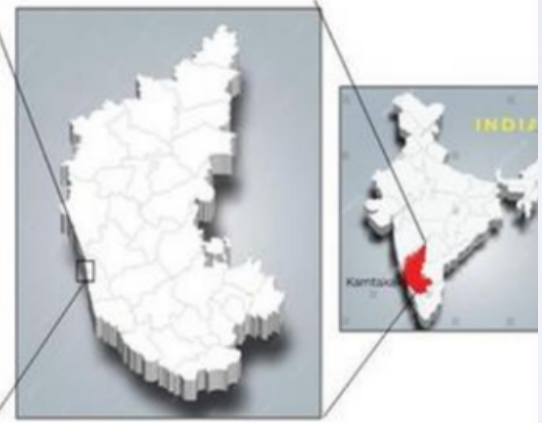
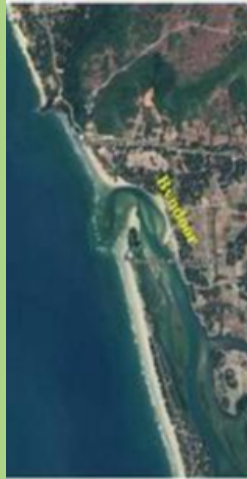




DESK AND WAVE FLUME STUDIES FOR THE DESIGN OF BREAK WATER FOR THE DEVELOPMENT OF MULTI - PURPOSE HARBOUR AT BUYNDUR, KARNATAKA



STUDY OVERVIEW

Karnataka Maritime Board (KMB), Govt. of Karnataka has a proposal to develop a Multi-purpose Marina Facility at Byndur, under Sagarmala scheme. The proposed layout consists of two parallel breakwaters . Based on the desk and wave flume studies the design cross-sections of breakwater and bank protections at different sea bed level have been evolved.

APPROACH

Desk and wave flume studies were conducted to design the cross-sections of breakwaters and bank protections at varying seabed levels for the development of a multi-purpose marina facility at Byndur.

KEY FINDINGS

- Based on desk and wave flume studies the design cross-sections of breakwater and bank protections at different sea bed level have been evolved.
- The Significant wave height of 4.50 m (H_s) and Design Water Level of +3.30 m was considered for the design cross-sections of breakwater. The bank protection consists of 0.5 to 1 t stones up to 0.0 m sea bed level.
- The trunk portion of breakwater cross-sections consist 2 t up to -1.0 m sea bed level and 6 t tetrapod armour units up to -3.0 m sea bed level, 8 t tetrapod armour units for round head portion of breakwaters at -4.30 m sea bed level. The hydraulic stability of breakwater section was confirmed through wave flume studies and section was found to be safe.

IMPACT

The project facilitates extensive desk and wave flume studies for optimized breakwater cross-sections to ensure the long-term viability for the development of Multi-purpose Marina Facility at Byndur, Karnataka

