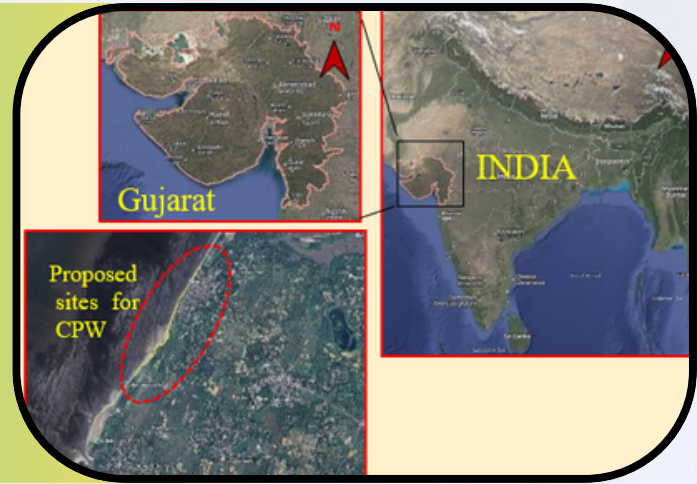




DESK STUDIES FOR THE DESIGN OF COASTAL PROTECTION WORK AT FANSA (MANGELWAD TO BARIYAWAD), UMARGAM, DISTRICT VALSAD, GUJARAT.



STUDY OVERVIEW

The project involves coastal protection works at Fansa (Mangelwad to Bariyawad), Umargam Taluka, Valsad District, Gujarat for a length of 1200 m. To protect the residential properties of fishermen, farms and trees, desk studies to design the coastal protection works at Fansa (Mangelwad to Bariyawad) is carried out.

APPROACH

- Desk studies to design the cross sections for the coastal protection works in the form of seawall using the empirical methods based on the data such as beach profiles, tides, waves and existing site conditions
- The Design Water Level (DWL) of +6.0 m including storm surge of 0.60 m above the Mean High Water Spring (MHWS) of +5.40 m is considered for the design of coastal protection works
- The maximum breaking wave height of 1.95 m at DWL is considered for design purpose.
- The average depth of water in front of the seawall is considered as 2.50 m

KEY FINDINGS

1. The cross sections of coastal protection measures are evolved with 1.0 t to 1.5 t stones in the armour layer.
2. The rubble mound structures are flexible structures and it is essential to monitor and maintain them regularly. Therefore, periodic monitoring and maintenance of the seawall, as and when any damage occurs may be undertaken
3. A proper provision of toe-berm avoids scour at the toe. Furthermore, dissipation of the wave energy on the sloping/permeable face of the seawall helps in reducing the probable scour at the seabed.

SIGNIFICANCE

The project aims at protecting the residential properties of fishermen, farms and trees in the form of coastal protection works at Fansa (Mangelwad to Bariyawad), Umargam Taluka, Valsad District, Gujarat

