



ENVIRONMENTAL SERVICES

Marine Environmental Monitoring Services

Marine environmental monitoring is becoming increasingly important for the Greenfield and Brownfield water development and coastal based thermal power projects.

While environmental impact assessment studies and adopting environmental management plans is important, periodical monitoring of marine and coastal environmental parameters are essential to establish the following:

- (1) Monitoring the trends in background marine water and sediment quality to assess the adequacy of the existing management plans and also to predict possible long term impacts,
- (2) Monitoring of the seasonal ecological and biological parameters to establish the impacts from natural and anthropogenic activities in the region
- (3) Monitoring of coastal eco-systems in the ecologically sensitive areas, such as sea grass, mangroves and coral abundant areas in close proximity of the project sites, to assess the overall long term impacts from natural and anthropogenic activities in the region

An integrated marine and coastal ecological monitoring programs will help to assess the environmental and socio-economic benefits due to implementation of long term marine and coastal environmental management programs adopted by the project proponents.

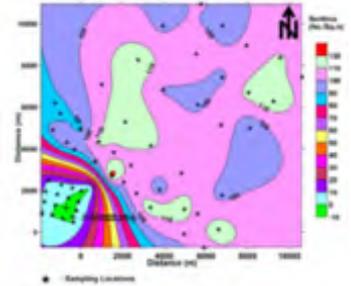
Being a NABET accredited environmental consulting organization for ports and harbour sector, Chola MS Risk has executed several Environmental Assessment studies as per EIA Notification 2006 and its amendments and also CRZ Notification 2011 in India. Our qualified and accredited experts from diversified fields such as coastal management, marine hydrological modelling, marine ecology, ecological modelling, data simulation and statistical analysis etc, have been supporting our clients in Gujarat, AP, TN, Maharashtra & Orissa.

Why partner with us?

- Data interpretation and establishing the relationship among various marine eco-systems
- Interpreting and explaining the seasonal dynamics of marine eco-systems
- Finger print techniques to assess the impacts from anthropogenic activities, specific industrial activities, urban pollution and natural processes
- Evaluating the marine eco-systems for MARPOL compliance for biological species (a mandatory requirements for all ports)
- Evaluating the estuarine and mangrove eco-systems etc.

Our marine environmental monitoring services include:

Marine water quality monitoring: We have a wide experience in sampling and analysis of psychochemical parameters and also ecological parameters such as zooplankton and phytoplankton. Our teams have mastered the art of simulating the baseline data to establish the seasonal variations and also finger printing analysis of various external factors that could influence the marine water quality parameters.



Typical representation of Marine Biotas



Marine sediment quality monitoring: The dynamics of psychochemical parameters in the sediment samples were analyzed at several coastal stretches of India and established the impacts due to the presence of heavy metals and nutrients on the primary and secondary production system in the marine eco-system. Our teams have strong analytical and modelling skills to undertake the long term ecological impacts due to change in sediment quality.

Collection of Marine Sediments using Van Veen Sampler

Marine ecological monitoring including mangroves eco-system: Our marine zoologists and biologist have a wide experience in developing local and regional ecological and biodiversity enhancement programs based on scientific studies and numerical modelling. Cost and benefit models will be adopted while suggesting a suitable mangrove eco-system enrichment and afforestation programs.



Collection of Marine Water using Niskin Sampler



Marine ecological management programs: Our marine and coastal environmental engineers and scientist have helped various waterfront development projects and also coastal based thermal power plants in implementing a robust marine environmental protection programs covering engineering and management programs. Our unique strength of hydrodynamic modelling coupled with coastal ecological modelling, baseline monitoring, strong knowledge in interrelationship of various ecological components and remote sending based land use mapping has helped our clients in defining a most effective and economically feasible management programs.

Collection of Planktons from Sea Water