

# **Inventorisation and database creation on microbial diversity along Indian coast**

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Investigations of Indian biodiversity records illustrate research gaps in coastal and marine biodiversity and it is particularly true in the case of microbial diversity. Indian coastal waters are extremely diverse due to geomorphologic and climatic variations along the coastline. Microbes form an important constituent of the marine ecosystem owing to their ecological roles in addition to the bio-prospective potential. The studies on their diversity carried out by various academic and research institutions are not available in public domain. The present study aims at inventorizing the microbial diversity on Indian coast and construct a detailed strategy for bridging the gaps. This study will form a knowledge base to offer broad spectrum information about the coastal microbes which will provide insights into the microbial diversity, their temporal and spatial variation, and changing profile.

## **Specific objectives**

- To construct an inventory of the microbial diversity along the Indian coastline
- To identify lacunae in the existing knowledgebase
- To generate new database as a strategic measures to bridge this gap

The scope of the study would cover the entire Indian coast line including Islands represented by various ecosystems viz., mangroves, coral reefs, seagrasses, tidal mud flats, sea beaches and intertidal areas.

In the first phase, the inventorization of existing biodiversity data would be undertaken. Secondary data would be collected from public domain using Pubmed, Scopus, J-Gate, while the microbial biodiversity data from unpublished sources like theses, dissertations, lab-reports and monographs would be retrieved by visiting the respective institutions. The strategies to bridge the lacunae in the knowledgebase will be prepared with detailed research approach and sampling plan.

During the subsequent phases, field and lab works would be undertaken for the ICZM areas viz., West Bengal, Orissa and Gujarat and for the rest of the coastal India including Islands. The microbial database created under this research study will be integrated with the CoMBINE database of NCSCM.