

Marine Biodiversity of Maharashtra coast and community role

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Biodiversity conservation and role of community are both two sides of the same coin. It is believed that if people are benefitting from the bioresources, they themselves will take conservatory measures. This is true to some extent as the localites understand the ecology of their region also. India adopted and notified its Biological Diversity Act in 2002 in line with the CBD for conservation and sustainable utilization. Indian coastline, particularly Maharashtra has been blessed with different coastal ecosystems ranging from estuarine – **Mangrove**, sandy and rocky intertidal and biologically sensitive like **Coral**.

Maharashtra coast is about 720 km long with 112000 sq. km of continental shelf providing livelihood to more than 80,000 fisher families. Apart from this major fisheries resource, there are other resources like mangrove forest, coral reef and intertidal crustacean and molluscan resources.

The Malvan Marine Sanctuary has spread over 29 sq km, the sanctuary is rich in coral and marine life. Malvan is in Sindhudurg district, a part of Konkan coast along the West coast of India. The coastal features of Malvan are rocky, dissected mainland with rias and lava promontories, occasional presence of overhanging cliffs, projecting headlands, stacks and erosion platforms, rocky shoals, several submerged reefs and boulders in a ria type coast particularly towards south. On the north of Malvan the most striking feature is the 'littoral concrete' or 'beach rock'. The littoral concrete occurs as rocky beach either directly attached to the mainland or separated from the latter by a zone of sandy beach or muddy and marshy area. It has often afforded protection against the force of waves and

helped the formation of sandy beach or muddy swamps between the rocky beach and the main land.

These ecosystems are enriched with diversified flora and fauna. Community Conserved Areas (CCAs) are best conserved areas for the local people. For a community to effectively conserve its natural resources, it must have a sense of responsibility or custodianship towards them. This develops through economic or cultural interaction and association with these resources. The biodiversity of any area has direct relationship with the local community. Mangrove forests are also being over-exploited for various reasons. One such example is 'Aquaculture' in the mangrove area. Thus the impact of change in coastal biodiversity affects the economics of coastal population.

Due to human interactions and developmental processes, some of biota are facing problems of being extinct. Hence, there is an urgent need to conserve the biodiversity along with sustainable utilization, conservation and management plans. The sustainable utilization of living resources can be managed by reforestation efforts in case of mangroves. This should be done by involving the local people. Regularizing the fishing activities, etc. on the Gram-Panchayat level. The conservation and management of the existing biodiversity involves many technical difficulties. Thus the "Socio-economical" studies of the selected sites along the coast are undertaken to estimate the effect of declaration of these areas as Marine Protected Areas on the livelihood of local communities. It is felt that there should be direct participation of the local communities to protect their traditional interests and to give them maximum opportunities (IUCN, 1997).