

CONSERVATION AND MANAGEMENT OF MANGROVE ECOSYSTEM OF INDIAN SUNDERBANS – PEOPLE'S PARTICIPATION.

SUBRATA MAITY

Society for Coastal Area Research Development, Qrs. # B2/210 CA West, KALYANI – 741 235, West Bengal, INDIA.

The mangrove ecosystem in general is considered as one of the most productive ecosystem of the world and about one third of the world's population lives around it and depends for their livelihood. In spite of its ecological, economical and esthetical values, this vulnerable ecosystem is on threat and gradually depleted even to an un-repairable state. Indian Sunderbans is no away behind this scenario. The issues like : increased population, over exploitation, increased salinity and toxicity, un-planned (?) urbanization, geological dynamics, intensive aquaculture, natural calamities, global warming (?), etc. have led to deplete not only the area, but also one of its components, the mangrove diversity. While the species diversity was 58 during 1977 (Blasco) in the East coast of India, the figure now came down to 48 (Untawale, 1986), and some are going to be threatened. This glooming situation has directed us initially to generate awareness and subsequently capacity building amongst the stake holders of a specific island, Patharpratima. The island is the southernmost habitable island at the Bay coast, surrounded by fringe mangrove forest and facing the famous un-habited Lothian and Prentice islands. The existence of large degraded mud-flats at the fringe and rich mangrove forest across the creeks and rivers have led to under-take a mangrove conservation strategy with active participation of the local populace. Direct seeding, establishment of nursery and transplanting of seedlings on pre-silted sediment in the trenches were the methods of rehabilitation in our conservation strategy. Trenches of suitable dimensions were cut during March and left for siltation till planting following tidal action. Fully matured propagules of 18 tree species were collected from nearby forests during the June-July and directly planted on the silted trenches. Seedlings of all such species were established at both saline (river beds) and fresh soil conditions. Seedlings of 90 days old were then replanted on the pre-silted trenches. Variations in seedling establishment on saline and fresh soil was found to be distinctive among the species. However, such techniques with active involvement of the people was found to be a successful approach for mangrove conservation *vis-à-vis* ecological restoration in the deltaic Sunderbans.