

VIII.1.A.3. Sustainable Management of Chilika Lake : A Multistakeholder Approach

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This paper deals with the management problem of Chilika lake. The study was carried out to assess the causes of ecological degradation, impact of declining fisheries resources on the socio-economic vs vulnerability of the local fisherman and to assess the distortionary impact of degradation on the wetland recreation.

The study was primarily based on the secondary materials collected from government offices and non-governmental organisations. The work involves multi-stakeholders analysis for sustainable resource management. The stakeholders on the lake are those involved in the process of degradation, and fisheries and tourism activities. The results of this study revealed that the average salinity has declined from 22.3 per cent in 1957 to 9.9 per cent in 1986, The water spread is shrinking at the rate of 1.6 sq.km per annum. About ten rivers and rivulets [pour water and silt into the lake. The reduction in expected sea level in the coastal Orissa and at Chilika may breach the barrier spit and may change the brackish conditions to a more saline environment resulting in ecosystem modification. Pollutants from industries, use of fertilisers and pesticides on the crop fields in the catchment area and oil from bilge water of the ships of the Naval Training centre and power driven boats introduce undesirable ecological changes in the lake.

Since 1970 the output of fisheries is showing a downward trend. Several factors such as intensified fishing in the inshore and offshore water, use of nylon nets, catching of fingerlings, over exploitation of prawn and crabs, decrease of phytoplankton and fall in salinity are attributed as the reason behind the decline. Decline in fish catch has increased the socio-economic vulnerability of the fishermen.

Flow of domestic as well as foreign tourists increased to 1.37 lakh and 250 respectively in 1995. However, it is reported that about 15,000 migratory birds are being caught and sold every year from the sanctuary.

The governance of the lake is done through the forest and fisheries departments of the government of Orissa and Department of ocean Development of the government of India. There also operate fishermen cooperative societies and NGOs. The activities of all administrative authorities and different area development programmes are coordinated by the Orissa Maritime and Chilika Area Development Corporation (OMCADC). The overlapping interest groups and agencies have dissimilar and conflicting actions on the lake. A sustainable management plan should accommodate the perspectives of all these stakeholders, while maintaining minimum

ecological conditions. The paper presents alternative scenarios of better resource management, stakeholders' satisfaction and sustainability of the wetland ecosystem.