

CONSERVATION AND MANAGEMENT OF ESTUARINE SEAGRASS AND MANGROVE HABITATS IN SRI LANKA

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ABSTRACT

Seagrass and mangrove habitats play an important role in lagoons and estuaries minimizing erosion and providing nursery grounds for many species of commercially important prawns and fish. In Sri Lanka, mangroves are used in the construction of houses of coastal inhabitants, fishing gear and handicrafts. They are also important as fuel wood and source of charcoal, tannin, fodder and human food. Causes of destruction to mangrove and seagrass habitats include denudation for economic and domestic purposes, use of destructive fishing gear, extraction of polychaete worms, urbanization, water pollution, erosion, and poverty of people living around lagoons and estuaries. For conservation and management, it is necessary to exploit mangroves at sustainable levels and to stop the operation of destructive fishing gear in seagrass beds. Reforestation of mangroves, especially those of economic importance is also required. Alternative employment to those who are engaged in destructive activities should be provided for conservation to be effective. Control of water pollution and alleviation of poverty among coastal inhabitants are also needed for successful conservation of these highly productive habitats.

INTRODUCTION

Seagrasses and mangroves play an important role in brackish water and marine fisheries providing nursery grounds for large number of commercially important finfish and shellfish species. In addition, mangroves are used by coastal inhabitants for many of their domestic and economic activities.

Seagrasses occur in shallow coastal waters and in estuaries and lagoons as underwater meadows. In Sri Lanka, mangroves are distributed discontinuously along the shoreline not affected by high wave action and also around lagoons and estuaries. The mangrove cover in Sri Lanka has been roughly estimated to range from 6000 ha to 13000 ha (Anon. 1991). They are highly abundant around Jaffna, Batticaloa and Puttalam lagoons. The extent of seagrass beds in estuarine habitats in Sri Lanka is not precisely known. However, they are abundant in brackish water bodies such as Jaffna, Mawella, Koggala, batticaloa, Kokilai, Puttalam and Negombo lagoons (Anon. 1991).

Of the 53 species of mangroves recorded in the world, 23 species are found in Sri Lanka (Anon. 1991). The major species which are abundant in the banks of lagoons and estuaries are *Acanthus ilicifolius*, *Avicennia marina*, *Brugueira gymnorhiza*, *Cerebra*