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EXPLOITATION OF MANGROVE AND CORAL REEF ECOSYSTEMS OF THE WEST AND SOUTH COASTS IN SRI LANKA

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Mangroves are tropical tree species and genera existing in brackish and saline water of tropical coasts. Similarly, corals are also widely distributed in the shallow warm (over 20°C) seas. The ecosystems of mangroves and coral reefs produce food and provide shelter as well as breeding and nursery grounds for microscopic and mesoscoopic fauna. They help to preserve the balance of nature and have played an important role in supplying food and raw materials to inhabitants of coastal areas. The human impact on both these ecosystems arises directly as a result of environmental damages caused by man's desultory usage and over-exploitation.

There are about twenty six species of identified true and semi-mangroves which fall into seventeen families in the west and south coasts of Sri Lanka. They supply food and beverages, timber for construction of houses and fishing boats, house-hold items, agricultural manure, animal feed and medicine. Mangroves have been destroyed due to the unplanned exploitation for human settlements, industrial activities, agriculture, tourism and recreation. A considerable amount of mangrove species have also been damaged by discharge of toxic substances and polluted water into lagoons, lakes, estuaries and tidal creeks. This destruction has directly and indirectly resulted in the depletion of wild-life and influenced the livelihood of the people.

The coral reefs in Sri Lanka are predominately of the fringing and barrier-like types. They occur in many places around the island as dead and living coral reefs and in the coastal lowlands as buried and emerged coral reef patches. Although fringing reefs abounded in the continental waters only a few contain true coral reefs of different forms. These submerged and living corals in the continental shelf and buried corals in the interior are now being destroyed for the illicit production of lime. Tourism, fishing and navigation are also responsible for the destruction of these resources.

This continued destruction in both habitats have created a number of environmental problems viz: (a) The destruction of mangroves and coral reefs which have a negative impact on the growth of species, organisms and other marine flora and fauna; (b) The destruction of habitats that can increase the speed of swell and high waves and bring about coast erosion; (c) Disposal of industrial pollution and waste as well as well as siltation that degrade the habitats; (d) Pollution of stagnant water-holes and ditches where buried corals are mined that provide breeding grounds for various types of mosquitoes; (e) The increase in the salinity of water and soil in the cultivated lands that cause the degradation of mangrove swamps and marshes; (f) Pollution of air from lime kilns.

Therefore an increased public awareness of the physical, biological, socio-economic and cultural consequences of unplanned exploitation of mangroves and coral reef ecosystems is of utmost importance for their sustainable use, conservation and management.