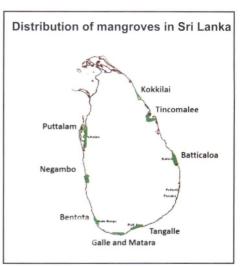
# Why need to Protect Mangrove Eco System

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Mangroves are salt tolerant, woody, seed bearing plants in size from small shrubs to tall trees. Occur along sheltered intertidal coast lines and are often found in association with estuaries and lagoons. Although mangroves occur on saline soils they have the usual plant requirement of freshwater, nutrients, and oxygen. Most extensive mangroves occur in the Puttalam, Batticaloa, Trincomalee, Jaffna, Galle and Gampaha districts.

These are very important eco system. They are rapidly disappearing worldwide to make place for major coastal development projects.



## THE VALUES OF MANGROVES.....

Mangroves play a vital role in coastal protection. Unique root system also reduces siltation in estuaries and sea grass beds by trapping sediment. They are also very important source of timber, pulp, wood and firewood. Also provide non woody forest products, such as tannin, fruits, fodder for domestic usages. Mangrove forests are use for both inshore and offshore fisheries. Here rich in invertebrates, and animals such as fishes, birds, crabs, shrimps, oysters, and clams, but they also constitute vital breeding and nursery grounds for many inshore and marine fish and



Ceriops tagal

shrimp species. These forests serve as link between terrestrial and marine ecosystem. The nutrients entering the lagoons as detritus from the mangroves become the food of microscopic organisms. They are the 1st step in food chain. The end products of this are of great nutritional and commercial importance to man. Mangroves act as filters of pollutants from fresh water runoff. Forests also used as waste water treatment systems. Also play an imminent role in trapping and stabilizing sediment. Forests act as a carbon sink. The process of photosynthesis changes inorganic carbon into organic carbon in the form of plant material.

#### WHAT WILL BE HAPPENED WITHOUT MANGROVES.....

Clearing of mangroves removes important breeding and nursing for areas for marine organisms, which adversely affect local fisheries and aquaculture. Also leads to a loss of species diversity and wildlife habitat. When disturb the food chain it affect for all organisms in the eco system. Removal of mangroves may lead to deterioration in water quality. Mangrove destruction increase the exposure of estuaries and lagoons to the natural forces. Which may affect villages and agriculture in coastel zones....... Tsunami,) Destruction of mangrove removes the carbon sink function. Which finally may lead to global warming and sea level rise.



Rhizopora mucronata

When coastel peat bogs are drained, the exposed potentional acid sulphate clays oxidize and produce strongly acidic compounds. These compounds acidify both soil and water. Highlevel of acidity caused, soil and water are unsuitable for any agricultural, aquacultural, domestic or other uses.

#### MANGROVES FACING PROBLEMS.....

Mangrove harvest: Firewood is used for cooking, beams and poles are used for housing construction and fishing, branches are used Mas athufishing. Tannins are used for preservation fishing nets. as well as medicines, beverages, and green leaf manure.

Mangrove conversion: for aquaculture, Coconut and paddy cultivation, housing and urban expansion, waste disposal, habitat deterioration and destruction.

Pollution: discharge toxic substances from factoris to the lagoons.it hazards to mangroves.affect mangroves cause siltation.

Authority: There is no specific authority to control cutting mangroves.

Public unawareness: Farmers and fishermens are not aware of the over exploitation and conversion of mangroves.



Rhizopora apiculata

## FINALLY WHAT WE SHOULD DO TO PROTECT MANGROVES.....

Should control mangrove harvesting. prohibit estate development and shrimp ponds, waste disposal in mangrove areas. maintain tidal influence and salinity levels in lagoons and estuaries. Aware of farmers in upland areas. Enforce legislations .Arrange public awareness campaigns to negative impacts of mangrove destruction. Replanting of mangroves after illegal destruction. Usealtrnatives for mangroves. (Use Aloe vera drinks)



Sonneratia caseolaris

#### TYPES OF MANGROVES......

Avicennia marina (Manda)

Bruguiera cylindrica (Mal kadol)

Rhizopora mucronata (Mahakadol)

Sonneratia alba (Gal kirala)

Sonneratia caseolaris (Kirala)

*Xylocarpus granatum* (Muttikadol)

Scyphiphora hydrophyllacea (Kalukadol)-Only in Puttalam District Lumnitzera littoria (Rathamilla)-Only in Madu ganga wetland.



Mangrove fauna