

MANGROVES

Importance, Threats & Conservation

Basic Coastal Ecosystem



MANGROVE



SEAGRASS



CORAL REEF

Functions

Prevents erosion

Nursery area

Produces nutrients

Pollution sink

Binds sediments

Nursery feeding and spawning area

Produces nutrients

Physical buffer for shoreline

Varied habitat, feeding and spawning area

Uses nutrients efficiently

Exports

Organic nutrients

Maturing fish and crustaceans

Carbon and nitrogen

Maturing fish

Fish and invertebrate larvae

Protection from waves and currents

Sediments to beach and reef flats

sea level



MANGROVES

- Mangroves are higher plants
- Grow along shallow water coastal areas
- Salt tolerant; evolved means to live in saltwater
- Have seeds that can be dispersed by seawater



Importance of mangrove ecosystems

- **Nursery grounds for fish, prawns, and crabs**
- Mangroves provide hiding places for the young animals
- A hectare of mangrove can produce one ton of fish per year



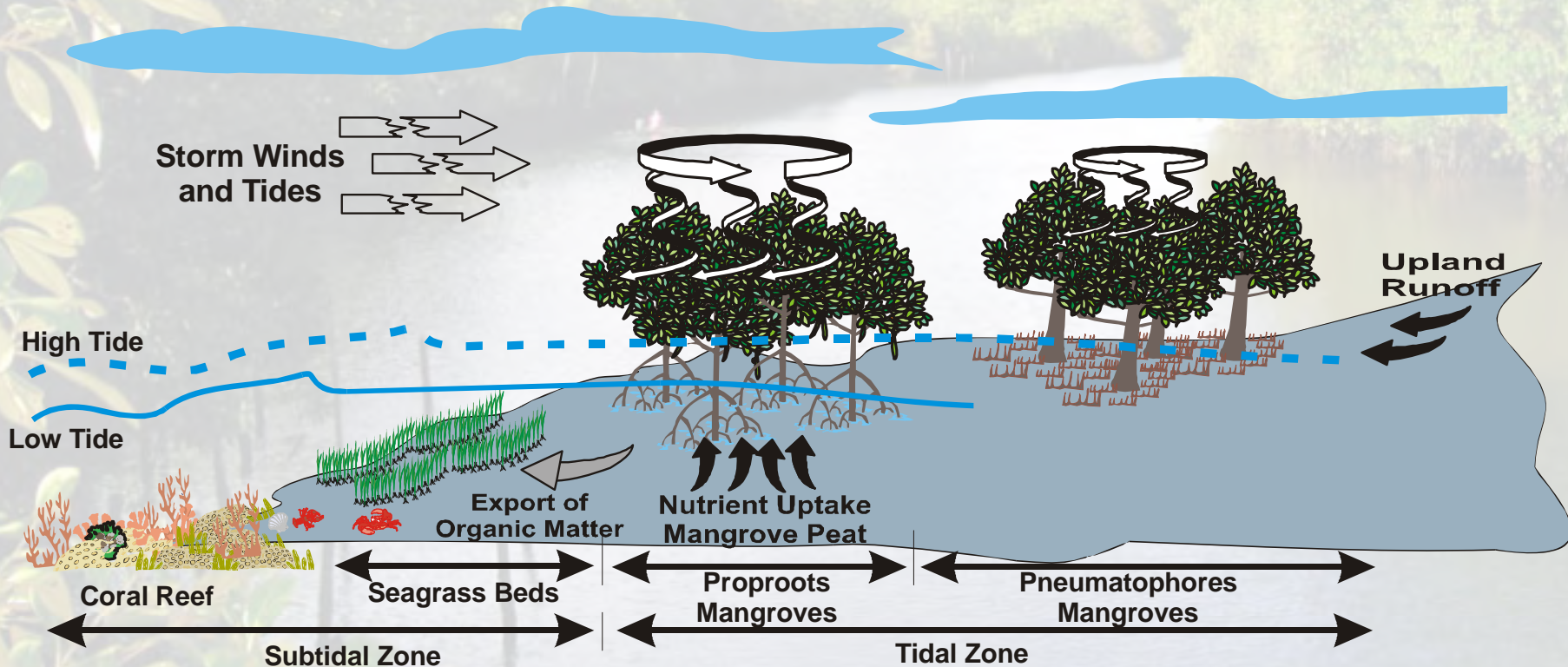
Importance of mangrove ecosystems

- Produce leaf litter and decayed matter as food for animals in the mangrove
- Mangroves produce about 3.5 tons of litter per hectare, per year



Importance of mangrove ecosystems

- **Provide protection from storm, waves, tidal currents and typhoons**
 - Crown and stem of mangroves serve as physical barriers
 - Roots trap and hold sediments and siltation from uplands



Importance of mangrove ecosystems

- **Provide shelter for migratory and local birds**
- Excellent bird watching areas



Importance of mangrove ecosystems

- **Source of timber, tannin (dyes), and medicine**

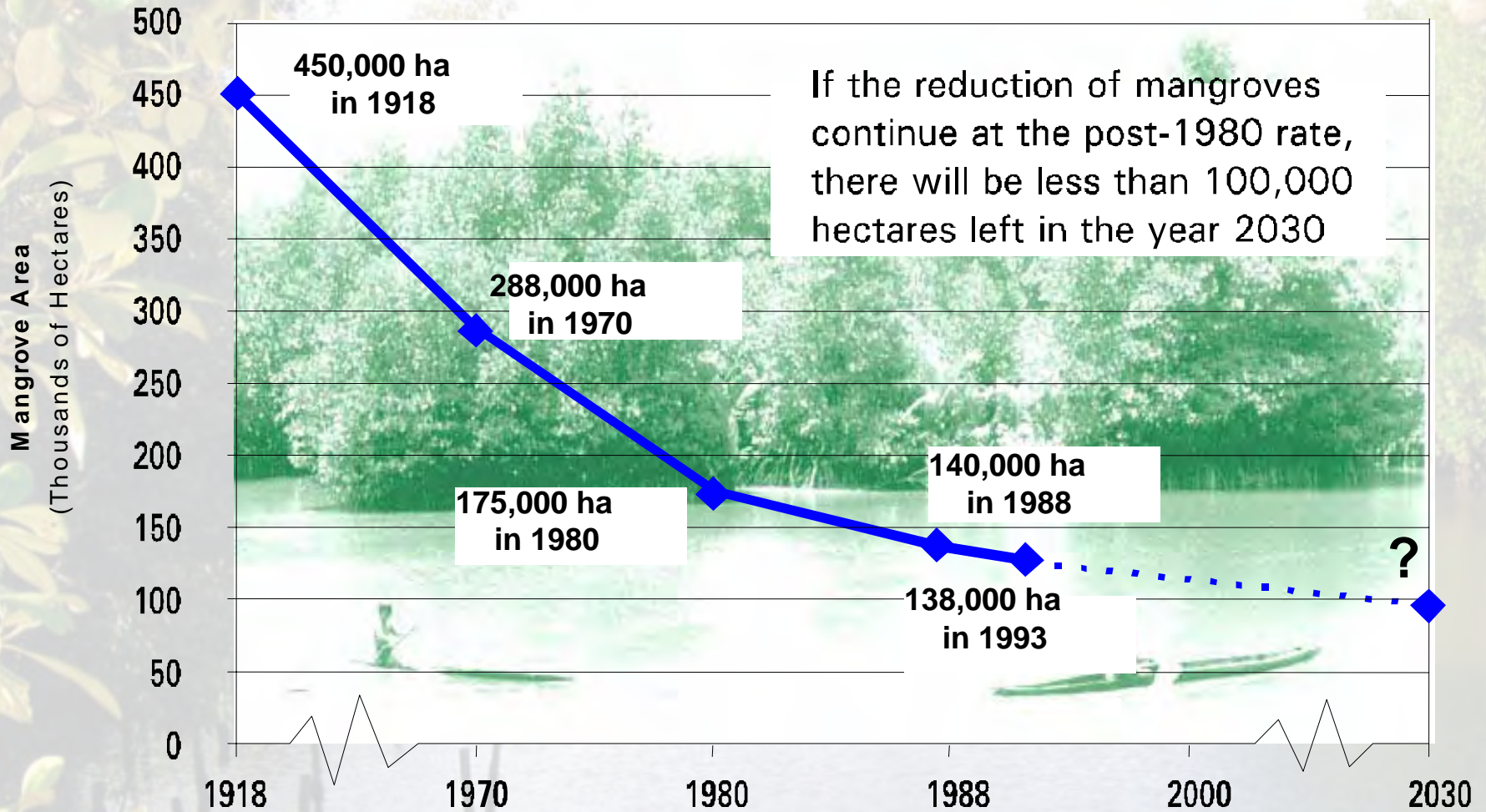


Importance of mangrove ecosystems

- **Aquaculture and fisheries are dependent on mangrove forests**



Status of Mangroves



Source: ADB 1993; WB 1989, DENR 1988

Threats to our Mangroves

Threats to mangroves



Threats to our Mangroves

Human Activities

- Conversion into fishponds and salt beds
- Construction of dikes and structures to obstruct waterways
- Reclamation

Conversion



Reclamation



Threats to our Mangroves

Human Activities

- Pollution and siltation
- Overexploitation and utilization
- Disturbance due to gleaning, fish landing



Restoring our Mangrove Forests

1. Nursery Establishment



2. Plantation establishment and management



Restoring our Mangrove Forests

3. Community-based forest management agreement



4. Fishpond restoration



One Million Mangroves for Cebu



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ANGROVES

EBU

One Million Mangroves for Cebu

Project Objectives

1. Reforest identified degraded mangrove areas in Cebu
2. Involve public support in protecting our mangroves
3. Provide logistical support to rehabilitate mangrove areas
4. Develop a collaborative spirit among LGUs, NGAs, NGOs and private sector to protect Cebu's coastal environment

One Million Mangroves for Cebu



Propagule



Seedling

Planting Materials

Nursery
Maintenance

Management of
Plantation



ONE MILLION
MANGROVES
CEBU



SITES

Pinamungahan

Moalboal



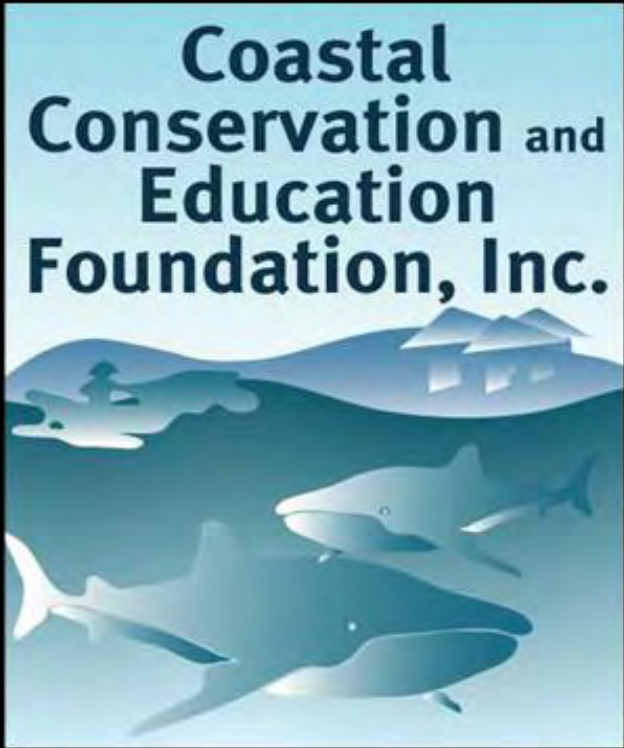
Carmen

Liloan
Brgy Cotcot

Carcar

Argao
Brgy Guiwanon

Dalaguete
Brgy Oboong



**Coastal Conservation and
Education Foundation, Inc.**