

BACKSHORE VEGETATION



The upper beach ecosystem is a **transition zone** between the land and the sea. It is characterized by a **dry littoral flora**, with plant species that have adapted to maintain themselves on a **sandy, permeable, saline** and **unstable soil** as well as to **resist the swell** and **sea-spray**. The upper beach ecosystem is typically divided into **three different strata**: the **herbaceous stratum**, the **shrub stratum** and the **arboreal stratum**.

This ecosystem is important for many species such as **sea turtles** which come to **lay their eggs**. The vegetation provides a **natural barrier** against **light and noise pollution** and creates a suitable incubation environment for the **eggs** through the **shade** it provides.

FUNCTIONS AGAINST NATURAL HAZARDS



Coastal protection

➔ The dense vegetation at the land-sea interface **attenuates wave energy** and **wind energy**.



Mitigation of erosion

- ➔ **Suspended sediments** are **slowed down** by vegetation;
- ➔ The dense mat formed by the **roots** helps **bind** and **stabilize** the trapped sediments;
- ➔ In addition to dissipating wave and wind energy, the vegetation **reduces the impact power of rain** and the **penetration of water** into the soil.

THREATS



Climate change
Sea level rise



Human activities
Coastal development, soil artificialization, mechanical harvesting of sargassum...



Overcrowding
Traffic and parking of vehicles, trampling...



Invasive alien species (IAS)



Sand collection



Natural hazards
Cyclones, tsunamis...

SOLUTIONS



Protection:
Protected areas, regulations



Rehabilitation:
Control of IAS, regeneration enclosure, construction of natural barriers...



Restoration:
Planting

Arboreal stratum
Shrub stratum
Herbaceous stratum