

COASTAL EROSION

DAMAGE ALONG THE SHORELINE WHEN LAND AND SAND IS LOST TO THE SEA

WHAT IS « COASTAL EROSION »

- Erosion is the process where soft shorelines (sand, gravel or cobble) disappear and land is lost.
- Erosion can damage houses and gardens if they are too close to the sea.
- Erosion occurs as a natural part of the coastal environment due to cyclic climatic conditions. It can also be man-made.

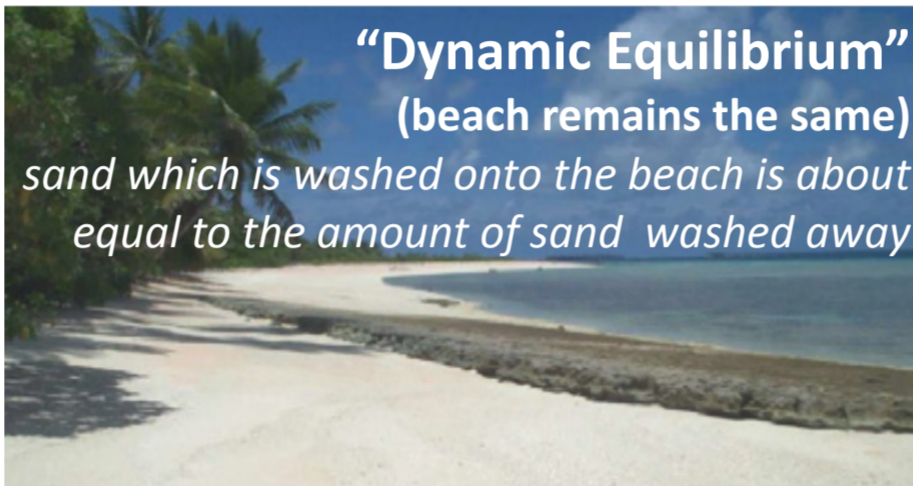


3 natural movements of coastal sand and soil



“Accretion”

(note coconut seedlings) extra sand is continually deposited on the beach..



“Dynamic Equilibrium”

(beach remains the same) sand which is washed onto the beach is about equal to the amount of sand washed away



“Erosion”

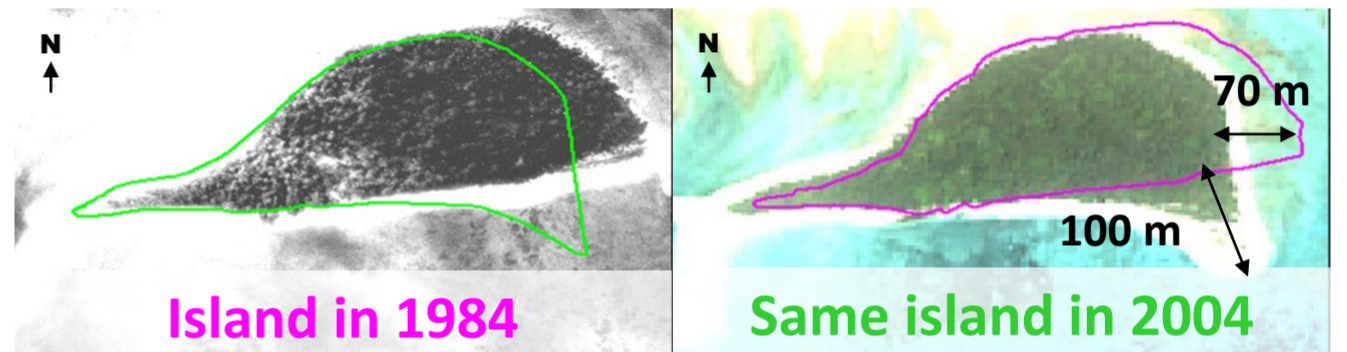
(beach is being lost) Sand is being continually lost from the beach Note fallen mature palms.

« COASTAL EROSION » IS NATURAL BUT CAN ALSO BE INFLUENCED BY HUMAN ACTIVITY

Natural cause

- **CYCLONE, TSUNAMI** can produce huge storm surges which can cause huge movements of sand and coral.
- Different seasonal wind patterns can create large swells, tides that influence shifting sand movement around an island.
- Earthquakes can cause uplift or submersion of land.
- The hot season and weather can cause sea level to rise, very slowly (3 mm/yr globally; 6 mm/yr for Vanuatu)

This island is uninhabited Over a 20 year period the island lost approx. 70m of eastern coastline (“erosion”) And gained 100m of southern coastline (“accretion”).



Man made cause

Don't mix Community Change with Climate Change



HOW TO REDUCE THE EFFECTS OF « COASTAL EROSION »

Activities contributing to increasing coastal erosion



Activities that help prevent increasing coastal erosion

