



Mangrove Planting



Mangrove Planting Activities carried out by the Karama Community in the Gulf Province through the PACRES Project and CCDA's Adaptation and Projects Division. This project is funded by the European Union.

Benefits of Mangroves

- Food Sources
- Energy Source
- Building Material
- Coastal Protection
- Tourism
- Biodiversity
- Water Filter
- Climate Regulation



CLIMATE CHANGE & DEVELOPMENT AUTHORITY
 Adaptation and Projects Division
 P.O. Box 4017, Boroko 111
 POM, National Capital District
 (+675) 7531 1710 | info@ccda.gov.pg | www.ccda.gov.pg

Fun Facts on Mangroves

1. Mangroves store 10x more carbon than terrestrial forests.
2. Mangroves can help fight coral bleaching.
3. Mangroves help fight climate change but they are far from immune to its effects.
4. There are about 80 different species of mangrove trees. All of these trees grow in areas with low-oxygen soil, where slow-moving waters allow fine sediments to accumulate.
5. PNG has 33 species of mangrove, of which 31 have been recorded along the south coast. Within the Kikori and Purari deltas, there is considerable zonation in mangrove species distribution.
6. Avicennia, Sonneratia, Rhizophora, Bruguiera, Xylocarpus, Lunmitzera, Ceriops, and Heritiera are representative genera of mangroves found here in PNG.



CLIMATE CHANGE AND MANGROVES



What are mangroves?

Mangroves are tropical plants that are adapted to loose, wet soils, salt water and being periodically submerged by tides. Four major factors appear to limit the distribution of mangroves: climate, salt water, tidal fluctuation and soil type. There are more than 50 species of mangroves found throughout the world. According to UN - FAO's Forestry Department, estimated mangrove area for PNG in 2005 to be 380 000 hectares. There are 43 different species of mangroves in PNG, and makes up 75% of the total mangrove area in the Pacific Region. Mangroves are the only species of trees in the world that can tolerate saltwater. They are halophytes, meaning they can tolerate salt and are able to live in areas where oceans and seas meet the land.



Where do Mangroves grow?

Mangrove trees grow in intertidal or estuarine areas. They are found in warmer areas between the latitudes of 32 degrees north and 38 degrees south, as they need to live in areas where the average annual temperature is above 66 degrees Fahrenheit. Mangroves are found all over the tropical and subtropical areas of the world. Indonesia is the country with the most mangroves. Brazil, Malaysia, Papua New Guinea, and Australia also have mangrove forests.

Mangroves & Climate Change

Mangroves buffer against rising sea levels and storms and help keep the coastline in place, protecting properties and infrastructure. Their dense root system holds soil in place and absorbs wind and wave energy. Once mangroves are gone, the land erodes and tides and currents reshape the coastline, making it difficult or impossible for mangroves to grow back in their former habitats. Mangroves have great capacity to take carbon out of the atmosphere. A patch of mangroves could absorb as much as 10 times the carbon of a similarly sized patch of terrestrial forest, mitigating the effects of sea level rise. Not only do they help our systems adapt to the impacts of climate change, but they can also help reduce atmospheric CO2 which drives the change.



Mangroves & Biodiversity

Mangroves are hotspots of biodiversity. They form the foundation of highly productive and biologically rich ecosystems, providing a home, nursery and feeding ground for a wide range of species of fish, crustacean, birds, insects and reptiles. Some migratory shorebirds rely on mangroves as roost sites, and the vulnerable Water Mouse depends on mangrove habitats. Mangroves are the only species of trees in the world that can tolerate saltwater. They are halophytes, meaning they can tolerate salt and are able to live in areas where oceans and seas meet the land. Mangroves can live for up to 100 years and therefore record the effects of changing environmental conditions in their structure and composition.

