



ECOSYSTEM DISRUPTION

Fact Sheet



There are many ways climate change can impact our different ecosystems here in the Cayman Islands. Cayman has many unique and vital ecosystems: wetlands, lakes & ponds, dry forest, xerophytic shrubland, beaches & seagrass, coral reefs, deep sea and more, all of which are at risk.

HOW DOES CLIMATE CHANGE IMPACT THIS ENVIRONMENT?

CORAL REEFS

Ocean warming and acidification stress coral reefs, resulting in coral bleaching, reduced calcification rates, increased susceptibility to diseases and predators, and overall decline in reef health and biodiversity.

SEAGRASS BEDS

Changes in water quality, increased storm intensity, and warmer temperatures affect seagrass habitats, leading to loss of biodiversity, habitat degradation, and disruptions in nutrient cycling and sediment stabilization.

BEACHES

Sea level rise contributes to coastal erosion, impacting beach habitats and coastal communities. Loss of beaches also affects nesting sites for sea turtles and other coastal species, further jeopardizing their survival.

DRY FOREST

Droughts and wildfires, worsened by climate change, harm dry forests and their biodiversity. Changes in rainfall patterns also affect the types of plants and animals found there.

XEROPHYTIC SHRUBLAND

Changes in precipitation and droughts might change the types of shrubland species and where we might find them throughout the island.

WETLANDS

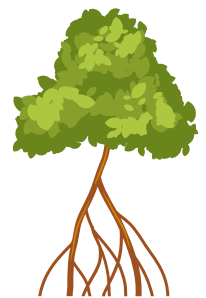
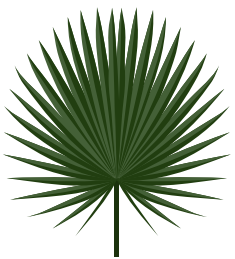
Rising sea levels and intensified storms threaten mangrove ecosystems, leading to coastal erosion, habitat loss, and disruptions in coastal protection and biodiversity.

SALINE PONDS

Changes in rainfall & sea level rise can alter water levels and saltiness in saline ponds. This can disturb the balance of life in the pond and disrupt the creatures relying on them.

DEEP SEA

Warmer oceans, different currents, and less oxygen change life deep underwater, having big effects on the deep-sea world, like storing carbon and recycling nutrients.



How do humans contribute to ecosystem disruption?

Humans contribute to climate change in many ways that cause ecosystem disruption such as burning of fossil fuels, cutting down natural areas for development, and growing food.

Human ecosystem disruption risks

BURNING FOSSIL FUELS

We use the energy from burning fossil fuels in our everyday lives, from turning lights on in the morning to driving to work or school to watching tv in the evenings, or using our phones. Burning these fuels is a major driver of climate change a one of the biggest impacts we are having on our planet and its ecosystems.

DEFORESTATION

Using materials like concrete to build our houses and businesses releases a lot of CO₂ into the atmosphere but also usually requires land and space that may be part of a forest or mangrove wetland. Cutting down these ecosystems releases even more CO₂ into the atmosphere! These natural spaces may also be removed to grow food or to keep livestock like cow, pigs, chickens, and goats.

