

WHAT CAN WE DO?

We must adapt to the impacts of climate change so we can protect ourselves and our communities, but we also need to mitigate.

Adaption refers to action to prepare for and adjust to new conditions, thereby reducing harm or taking advantage of new opportunities. Some examples of adapting to climate change include:

- Start learning about climate change and how it will impact your business, school, home or church.
- Shifting planting seasons.
- Exploring crop varieties with a greater tolerance for dry and hot conditions.
- Investing in irrigation systems, including rainwater harvesting and storage.
- Investing in greenhouses.

Mitigation involves implementing measures to address the main causes of climate change. Some examples of mitigation measures include:

- Reducing reliance on fossil fuels, such as coal, oil, and natural gas, which are the main sources of greenhouse gas emissions. This can be done by switching to renewable energy sources, such as solar and wind power, and by improving energy efficiency.
- Improving energy efficiency in homes and businesses.
- Reducing deforestation which may involve clearing of forests for agriculture, development, and other purposes. We can reduce deforestation by planting trees, protecting existing forests, and using sustainable forest management practices.
- Preventing agricultural lands from being concreted over, maintaining natural drainage to help recharge aquifers.

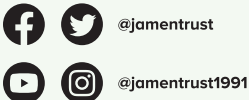
WE MUST TAKE ACTION TO REDUCE GREENHOUSE GAS EMISSIONS AND ADAPT TO CLIMATE CHANGE.



CANARI serves as CEPF's regional implementation team for the Caribbean Islands Biodiversity Hotspot.



For more information contact:
JAMAICA ENVIRONMENT TRUST
Earth Cottage, Unit 5, 123 Constant Spring Road,
Kingston 8, Jamaica, W.I.
www.jamentrust.org
Email: jamaicaenvironmenttrust@gmail.com



Important Things To Know.

Climate vs Weather

Weather describes the conditions you see outside on any particular day, and it can change quickly from moment to moment and place to place. Short term natural events such as fog, rain, wind, thunderstorms, and tropical cyclones are all part of weather.
(Source: World Meteorological Organization).

Climate describes average weather conditions for a particular location over a long period of time, typically 30 years. The number of storms, extreme rainfall and weather event in a 30-year period can all be considered as examples of climate.
(Source: National Oceanic and Atmospheric Administration).

Climate Change causes changes over time in the weather patterns that we have come to know and rely on.
(Source: Intergovernmental Panel on Climate Change – IPCC)

The Causes of Climate Change
Climate change is not something new. Over the Earth's long history, natural factors such as changes in the Earth's orbit, changes in the sun's intensity, and volcanic eruptions have caused our climate to change many times. However, climate change being experienced today is unique and mainly caused by human activities such as the burning of coal, oil and gas to produce energy or deforestation (cutting down trees) and certain farming practices. The activities either increase the production of greenhouse gases or remove greenhouse gas sinks.
(Source: United Nations)

How Climate Change Affects Us
Climate change, driven by the rapid increase in greenhouse gases, causes warmer global temperatures leading to intensified heatwaves and storms, disrupts marine life and crop growth, and poses significant human risks such as displacement, food shortages, and increased health issues.
(Source: Intergovernmental Panel on Climate Change)



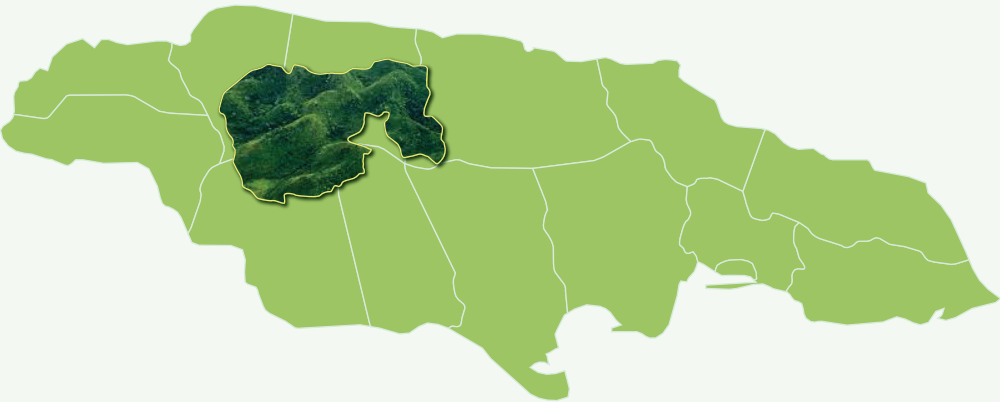
Climate Change & COCKPIT COUNTRY

Climate change is a threat to Cockpit Country and Jamaica. This booklet explains what climate change is, why it matters, and what can be done to protect Cockpit Country and those who live there.

COCKPIT COUNTRY

Cockpit Country is a unique landscape in central Jamaica that is home to many endemic species. It is the source of 40% of Jamaica's exploitable water resources and is of historic importance because it is where the Maroons were able to force the British into signing a peace treaty in 1739 (Source: cockpitcountry.com).

In March 2022, after decades of advocacy, by many groups and individuals, the Government of Jamaica legally protected 78,024 hectares of Cockpit Country and closed it to mining. The area, referred to as the Cockpit Country Protected Area (CCPA), is now the largest terrestrial protected area in Jamaica. This is approximately 30% smaller than the 110,000 hectares proposed for protection by the Cockpit Country Stakeholders Group in 2006 and which was recommended for protection in 2013.



Climate Change

& COCKPIT COUNTRY

Since the 1980s, data from five locations in Cockpit Country show that the area has gotten hotter, drier, and has had changes in its rainfall patterns.

Using several climate scenarios, Climate Studies Group, Mona found that the climate in Cockpit Country is very likely to change even further in the 2030s, 2050s and 2100s.

These changes include:



Climate Variable	Climate Projections
Temperature 	- Maximum and minimum daily temperatures expected to increase by 1.2° C to 2°C by 2050s. - Maximum and minimum daily temperatures expected to increase by more than 2°C by 2100s. - Mean temperatures for December to March expected to increase by 1.3°C. - Mean temperature expected to increase by 1.9°C.
Rainfall 	- By 2100s, rainfall is expected to decrease by 10 to 25%. - December-March - By 2030s, precipitation changes range from -7.5% to 20% in the northeast with an increase of 2.5% in the south. - By 2050s, precipitation changes range from -17.5% to -7.5%. - By 2100s, precipitation changes range from -12.5% to 7.5% in the southern and eastern regions to -7.5% to 12.5% in the western and northern parts of the Cockpit Country. - August-November- wetter southern and a drier north Cockpit Country. - By 2030s, precipitation changes range from -10% to -7.5% in the north, increase of 15% to 17.5% in southern precipitation and a minimum increase of 5% in the southwest. - By 2100s, all sections of Cockpit Country will be drier with reductions in precipitation ranging from -26% to -10%.
Wind 	Slight increases in wind speed intensity in the north-western regions by the 2030s. Further increases in wind speed intensity moving from the 2030s to the 2050s.
Hurricanes 	Likely to have more intense hurricanes (Categories 3 to 5).

Climate Change

& BIODIVERSITY IN COCKPIT COUNTRY

Climate change can drive environmental change by disturbing natural habitats and species.

Rising temperatures can affect the frequency and intensity of wildfires, storms, or periods of drought. Species already under stress from human activities may be further threatened by the impacts of climate change. Those already specially adapted to the climate of Cockpit County or sections of Cockpit Country could go extinct. This is because they will become dehydrated (lose their body moisture) with hotter temperatures.

Increases in extreme weather events, such as droughts, floods, and hurricanes, can damage habitats and kill wildlife. As an example, if more and stronger hurricanes hit Cockpit Country, nesting trees used by Black-billed and Yellow-billed parrots could be destroyed and birds may experience difficulty finding enough food in the aftermath of storms.

Many of the endemic species in Cockpit Country have specially adapted to the climatic conditions and are increasingly becoming threatened by a changing climate.



Cockpit Country is home to 281 plant species and 270 animal species that are Jamaica endemic.

THERE ARE ALSO

71 plant species that are Cockpit Country-endemic (meaning they are completely endemic to or found nowhere else in the world other than Cockpit Country).

41 animal species that are Cockpit Country-endemic, a list which includes special snails, tiny freshwater crabs, and butterflies.

Climate Change

& FARMING IN COCKPIT COUNTRY

A changing climate can affect farming in Cockpit Country in several ways. These include:

Increased temperatures: Higher temperatures can cause stress on crops, especially cool weather crops like cabbage, carrots and lettuce, leading to reduced crop yields.

Increases in pests and diseases: Warmer temperatures can also allow pests like aphids, caterpillars, and beetles to survive and reproduce more rapidly, leading to larger populations.

Changes in growing season: Temperature changes can affect the timing and length of growing seasons which can disrupt agricultural practices.

Increased weather extremes: Changes in the amount and distribution of rainfall can cause either drought or waterlogging, affecting crop yields and increasing the risk of disease.



Crops such as lettuce, tomato, yam, hot peppers, & sweet peppers, grown in Cockpit Country will likely be significantly impacted by climate change.