



Discussion Paper for the development of the CARICOM Biodiversity Strategy (CBS) - Climate Related Extreme Weather Events

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Synopsis

Under regional climate change scenarios, hurricane and storm intensity is expected to increase with subsequent impacts not only on the human population but the regions' biodiversity. This was very evident in the Caribbean in 2017. In September of that year for example, the category five Hurricane Maria caused one death in Barbuda, at least 27 human fatalities in Dominica, and also nationwide forest and agricultural crop loss on that island. That same month, Hurricane Irma caused the deaths of thousands of flamingos in Cuba.

Hurricane and storm impacts on biodiversity depend on the intensity of the storm and the resilience, structure and health of the impacted ecosystem and species. Low stature trees for example are generally better able to withstand hurricanes but this does not hold true under the extraordinary category five hurricane wind conditions. Low intensity hurricanes may lead to tree defoliation and animal migration but high intensity hurricanes can cause tree mortality and immediate death of animal species. Hurricane impacts may be immediate or delayed, direct or indirect. Tree mortality can be immediate or can be delayed due for example to bacterial and fungal diseases originating from hurricane damaged spots on tree trunks and branches. Long term impacts of hurricanes on terrestrial systems include changes in forest microclimate as well as species migration.

Overall, hurricanes and storms can lead to widespread death of organisms and/or the reduction of species richness and diversity in all ecosystems. Against this backdrop, restoration research and guidelines are important in post hurricane scenarios. Wildlife restoration efforts for example can include post-hurricane wildlife surveys and replanting of native trees to assist with wildlife recovery efforts. Dominica, for example, can serve as a post disaster ecosystem restoration laboratory, building on post-hurricane studies conducted in Puerto Rico and other countries. Finance for post hurricane recovery is critical. Global climate funding streams e.g. the Green Climate Fund or Adaptation Fund can be heavily leveraged for biodiversity initiatives including post disaster biodiversity restoration. The GCF is particularly suited for large scale multi-country projects. Apart from this, international and regional funding sources like the USAID/CCCC CCAP are also available.

While general climate change effects are addressed under various Global Biodiversity Strategy Aichi Targets, no specific mention is made of the impact of climate related extreme weather events. This subject area may warrant greater attention within the CARICOM Biodiversity strategy however.

Taking into consideration the issues outlined above as well as other issues you may be aware of, stakeholders are asked to consider:

What should the CBS to showcase, state or highlight on the topic of climate related extreme weather events to best address:

- your organisation's needs
- your country's needs – where national capacity and resources could benefit from additional regional support
- regional needs

Stakeholders are also asked to consider:

- How can the CBS address intense disaster events which can devastate a whole country's biodiversity?
- How can the CBS support regional advocacy and negotiations at the UNFCCC COP to as far as possible attempt to limit temperature increases and ensuing climate effects including extreme weather events on the region?

Finally: any additional issues, ideas or points you would like to highlight for inclusion or consideration in the development of the Strategy?

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