



Discussion Paper for the development of the CARICOM Biodiversity Strategy-Ecosystem Restoration

April 2018

Synopsis

Ecosystem restoration refers to the “reestablishment of the structure and functioning of a system to return the system to a close approximation of conditions prior to human disturbance” (Williams et al. 1997). Restoration can involve replacement of structural components such as native plant species and/or attempts to re-instate natural processes like nutrient cycling. Given the level of disturbance and degradation of many terrestrial, aquatic and marine Caribbean ecosystems, restoration is a key issue for consideration to enhance or protect the regions’ biodiversity. Restoration then becomes important to facilitate natural resource based livelihoods and restore ecosystem services e.g. source water protection.

Restoration is an extremely difficult process, hampered by among other things the difficulty in establishing biodiversity conditions prior to human intervention. In the Caribbean, there are also ongoing and persistent threats such as fires, pollution, invasive species and climate change. As it pertains to climate change some have argued that that the retention of ecosystem’s structure, functioning and species component is difficult and impractical given the strong impact of climate change. Instead it is argued that the focus should be on protecting the species and ecosystems that can withstand climate change, acknowledging that species loss, changes in species composition and ecosystem are inevitable. In prioritising sites for restoration in the face of climate change, researchers have suggested the need to focus on sites that provide thermal refugia as well as biological corridors which will allow animals to move to more favourable climates as needed. While the climate and biodiversity research and discourse is ongoing, given the dire threats, the region needs to mainstream climate considerations into ecosystem restoration work.

A number of Caribbean terrestrial and marine ecosystem restoration initiatives are in progress, some of which do factor climate concerns. The European Union Funded project on “Building Capacity for Coastal Ecosystem Based Adaptation in Small Island Developing States” includes coral reef restoration at Grand Anse Bay, in Grenada. Coral restoration is also the focus of a number of Nature Conservancy projects utilising novel techniques like micro-fragmentation. A few examples of terrestrial restoration work include Belize’s recent enrichment planting of hurricane degraded forests after hurricane Richard in 2010. Similarly, the Nariva Swamp Carbon Sequestration the Trinidad has to date replanted approximately 210 ha of trees which had a 70 % survival rate across the target areas. This project has been executed through co-management with nine community groups involved in plant propagation, tending and fire control.

Ecosystem restoration is addressed in the Convention on Biodiversity, Global Strategic Plan **Target 15** which states: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of

degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.

Taking into consideration the issues outlined above as well as other issues, stakeholders are asked to consider:

What should the CBS showcase, say, highlight on ecosystem restoration 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 mainstream climate considerations into restoration initiatives?
- How can the CBS support the financial sustainability of restoration initiatives?
- How can the CBS support institutional frameworks and capacity building for restoration initiatives?

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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