



CAPACITÉ

CRITICAL ECOSYSTEM
PARTNERSHIP FUND

Special Feature on Climate Change

As Capacité11 comes on the heels of the UNFCC Climate Change Conference in Lima, Peru, we feel it is fitting to use this issue of our newsletter to feature some of the ways in which Critical Ecosystem Partnership Fund (CEPF) grantees in the Caribbean are tackling climate change in the context of biodiversity conservation. We shine the spotlight on climate change initiatives in the Dominican Republic, Grenada, Haiti and Jamaica to share approaches, experiences and lessons learnt.

Regional Implementation Team (RIT) Country Coordinator in the Dominican Republic, Ledia Buglass, gives us an overview of the novel ways in which some civil society organisations in that country are integrating climate change adaptation and mitigation with biodiversity conservation. The Caribbean Coastal Area Management (C-CAM) Foundation in Jamaica shares a little about the climate change risk assessment that helped shape their management plans for two key biodiversity areas.

From Grenada, we hear about an exciting partnership between the Grenada Dove Conservation Programme, the Grenada Department of Forestry and National Parks and the University of Chester in the United Kingdom to model climate impacts on that country's dry forests and develop a framework for managing this important ecosystem. Agronomes et Vétérinaires sans Frontières (AVSF) shares lessons learnt from its work to build resilience of farmers in south-east Haiti to climate impacts.

There is so much we can learn from each other's experiences and we hope this issue of Capacité makes a contribution in that regard. We wish you a peaceful holiday season and a new year filled with wonder and meaning. We look forward to working with you in 2015.

The Regional Implementation Team (RIT) in CANARI

The **Critical Ecosystem Partnership Fund** (CEPF) is a joint programme of l'Agence Française de Développement, Conservation International, the European Union, the Global Environment Facility, the Government of Japan, the MacArthur Foundation and the World Bank.

The programme was launched in August 2000 and since then has supported civil society to conserve critical biodiversity in 22 hotspots, committing over US\$151 million in grants. CEPF is investing US\$6.9 million in the Caribbean islands during the five-year period from October 2010 to September 2015.

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CEPF Support for Civil Society Responses to Climate Change in the Dominican Republic

CRITICAL ECOSYSTEM
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- **Leida Buglass, Regional Implementation Team Country Coordinator, Dominican Republic**

According to a recent biodiversity modelling study by the Centro de Agua del Trópico Húmedo para América Latina y el Caribe, by the 2020s Caribbean coasts will be significantly affected by climate change if worst case scenario conditions prevail. This prediction underscores just how urgent it is for the region's countries to respond to the challenge of climate change and for civil society to play its role therein. The Critical Ecosystem Partnership Fund's (CEPF's) priorities for the Caribbean include supporting civil society responses to climate change in their conservation work.

The CEPF has been supporting projects in the Dominican Republic since 2012. While many of these initiatives have a climate change component, some are tackling climate change head-on in novel ways. For instance, the first private protected area in the Dominican Republic was created by CEPF grantees Consorcio Ambiental Dominicano (CAD), Fundación Loma Quita Espuela (FLQE) and the Sociedad para el Desarrollo Integral del Nordeste (SODIN). But this initiative is not just about increasing protected area coverage in the Dominican Republic, it includes a number of climate change-relevant components.

One of these components is also an important national milestone. Through this project the sale of the Dominican Republic's first forest carbon credits under its carbon offset strategy has been realised. Proceeds from the sale will go towards the long-term financing of the private protected area. The main thrust of this initiative is to give landowners, in particular small-scale farmers, incentives to restore the forest by planting a mix of cocoa and native wood species. Cocoa is ideal because it thrives in the shade, so it is in the interest of cocoa growers to plant larger trees. Cocoa prices are also set to rise. The other trees are chosen to approximate the horizontal and vertical structure of the original climax forest.

The beauty of the project is that the forest acts as a carbon sink, and so is eligible for carbon offset schemes. With their North American and Dominican partners in the private sector and specialists in



*A view of the Dominican Republic's first private protected area, the Reserva Privada Zorzal. Zorzal is the name of the Bicknell's Thrush, *Catharus bicknelli*, (see inset) in Spanish. The area is one of this migratory bird's important wintering grounds in the Greater Antilles.* ©CAD

carbon offsetting schemes, the project has managed to raise close to half a million US dollars from investors to buy a large property, which is the backbone of the private protected area. Together with the smallholdings, the new private protected area acts as a corridor between two well-established key biodiversity areas (KBAs), Loma Quita Espuela and Loma Guaconejo, which are managed by FLQE and SODIN. Apart from storing carbon, the native wood species enhance biodiversity and create habitat for migratory birds.

Fondo Pro Naturaleza's (PRONATURA's) analogue forestry initiative in La Humeadora National Park is another first in the Dominican Republic. Under the project, newly reforested areas are being established to simulate architectural structures and ecological functions of the original climax forest, as part of the strategy to conserve this KBA, which is the most important source of clean water for the night on 3 million inhabitants of the capital city, Santo Domingo. While this initiative is vital to making this water source more resilient to climate change by refore-




A farmer tells a group of visiting civil society representatives and donor partners about the success of the analogue forestry scheme in La Humeadora National Park during a December 2014 field trip to the area.
© Leida Buglass

esting the watershed, the analogue forest initiative is part of a larger multifaceted project that includes raising community awareness, capacity building and outreach, as well as promoting other diverse, useful and marketable forest goods and services to improve biodiversity and create ecologically stable and socio-economically productive landscapes.

In Sierra Bahoruco, the Sociedad Ornitológica de la Hispaniola Inc. (SOH) is taking a different approach to tackling climate change, with its focus on people and social systems. The philosophy behind this project is that it is crucial to change the current mindsets of people and to raise their awareness of the importance of biodiversity, sustainable agricultural practices and what to do in the face of climate change. The thrust is, therefore, to train and develop the capacity of a team of promoters, who, in a



In Sierra Bahoruco, the Sociedad Ornitológica de la Hispaniola Inc. (SOH) is tackling climate change through a focus on people.
© Jorge BRoca/SOH

multiplier effect, act as animators and ambassadors within their localities, so that the wider community is empowered to take steps to improve livelihoods and strengthen resilience to climate change. The knock-on effect is that this will translate into better farming practices and more diverse income generating activities, such as bird watching, that require intact forest stands. These initiatives are a win-win-win for the community, biodiversity conservation and climate change adaptation and mitigation. 

Planning for a Changing Climate in the Portland Bight Protected Area, Jamaica

- *Ingrid Parchment, Executive Director, Caribbean Coastal Area Management (C-CAM) Foundation*



Planning for a changing climate in the Portland Bight Protected Area, Jamaica

Although there is uncertainty about the specifics of future climate change scenarios and local impacts, one thing that seems incontrovertible is that an increase in land and sea surface temperatures will have adverse effects on natural and human systems. As protected area managers we have a duty to plan for this as best we can. Protected areas can help adapt to and mitigate the effects of a changing climate. But ecosystems can also be degraded or lost due to climatic changes.

With this in mind, as we prepared the sub-area management plans for the Hellshire Hills and Portland Ridge Key Biodiversity Areas (KBAs), which are part of Jamaica's largest protected area, the Portland Bight Protected Area (PBPA), the Caribbean Coastal Area Management (C-CAM) Foundation carried out a climate change risk analysis. We used the results to develop an action plan to strengthen the resilience of these areas and their ecosystem services, which are locally and nationally important. The vegetation of the PBPA, for example, provides carbon sequestration services valued at tens of millions of US dollars annually.



View of the Hellshire Hills Key Biodiversity Area, Jamaica

©C-CAM

We relied on the technical expertise of the University of the West Indies Climate Studies Group, Mona, to carry out the risk assessment, develop a vulnerability methodology and support us in developing the plan. The assessment confirmed that we have to plan for climate change because of the PBPA's inherent vulnerabilities to climate threats. Climatic variations will affect the KBAs as well as the livelihoods of the residents in and around them. Communities across the PBPA have different vulnerabilities and adaptive

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capacities, so responses to climate threats and management approaches have to be tailor-made; one size will not fit all.

Part of how we need to manage the KBAs for climate impacts is aligned with what has to be done to manage them for good biodiversity conservation outcomes: ensure we have adequate resources and personnel; enforce the environmental legislation already in place; and prepare and implement the zoning plan. We also need to systematically gather and record data and information about climate and non-climatic stresses. This includes research that associates climate with the ecosystems of the PBPA and focuses on monitoring, mapping, and modelling.

A climate response in the Hellshire Hills and Portland Ridge KBAs


The climate change action plan has set the stage for several activities that are part of the implementation of the sub-area management plans. For example, ongoing community training workshops to build local capacity to engage in the Environmental Impact Assessment (EIA) process include a focus on climate change impacts and adaptation, so that proposed developments can be looked at critically through this lens.

We launched a community monitoring programme the Hellshire Hills KBA in November 2014 and phenomena associated with climate change, such as coastal erosion, are being tracked. We are also monitoring the human activities that are exacerbating natural processes. We intend to expand to the Portland Ridge KBA in early 2015.

With funds that complement support from the Critical Ecosystem Partnership Fund (CEPF), we are creating habitat as part of an integrated marine conservation strategy that includes targeting species threatened by climate change. We have installed artificial reefs in the Three Bays Special Fisheries Conservation Area and are looking to install another in the Salt Harbour Special Fisheries Conservation Area by mid-2015.

Our public education activities include a climate change focus and as we work with resource users to identify alternative livelihoods, we try to ensure they are climate smart. In our work with the St. Catherine, Clarendon and Portmore parish councils, we are championing the integration of climate change into parish or municipal area plans.

Efforts to walk the walk

At C-CAM we model climate smart practices by using renewable energy sources and harvesting rain water at our field station facility and the conservation centre that is under construction. The challenge of changing climatic conditions is one that we cannot ignore as we manage the PBPA and its KBAs. 

C-CAM's work to develop and implement the sub area management plans for the Hellshire Hills and Portland Ridge KBAs has been supported by two grants from the CEPF in 2012 and 2014. The climate change risk analysis is available for download here <http://www.ccam.org.jm/publications/pbpa-cc-risk-analysis-final.pdf/view>

Mainstreaming Priority Biodiversity Conservation and Ecosystem Services Action for Grenada's Dry Forest Ecosystem, Including its Priority KBAs

- Howard P. Nelson, PhD, University of Chester

Championing tropical dry forests

Tropical dry forests are among the most globally threatened forest types, but are often poorly studied and protected. Although, tropical dry forests in the insular Caribbean only account for about 4 per cent of these forests the world over, their outstanding biodiversity, including critically threatened endemic species such as the Grenada dove (*Leptotila wellsi*), make them key conservation priorities. In spite of the large proportion of these forests already lost in the Caribbean, they continue to be important providers of ecosystem goods and services, such as soil stabilisation and coastal protection, for coastal communities throughout the region. It is in this context, that the Critical Ecosystem Partnership Fund (CEPF) -supported project, “*Mainstreaming priority biodiversity conservation and ecosystem services action for Grenada's dry forest ecosystem, including its priority KBAs*”, is using the latest computer modelling techniques, along with field surveys and stakeholder engagement to plan for one of the greatest challenges facing the tropical dry forests of Grenada: climate change.



Bonnie Rusk, Grenada Dove Conservation Programme and Dr. Howard P. Nelson, University of Chester meet with the Permanent Secretary in the Ministry of Agriculture (seventh from the left) and members of staff of the Grenada Department of Forestry and National Parks to discuss the project. © Howard P. Nelson

Developing climate scenarios for policy and planning


With future climate change potentially threatening tropical dry forests in Grenada with increased storm intensity, changes in rainfall patterns, increased drought intensity and fire risk, this CEPF-supported project is facilitating the development of improved planning and policy frameworks for managing tropical dry forests in Grenada. Led by Bonnie Rusk of the Grenada Dove Conservation Programme (GDGP), in collaboration with the Grenada Department of Forestry and National Parks (GDFNP) and with technical assistance from a research team led by Dr. Howard P. Nelson of the University of Chester (United Kingdom), the project seeks to develop policy and planning guidelines for adaptation to →



Grenada Department of Forestry and National Parks and project team personnel sampling a dry forest plot in the Mt. Hartman Key Biodiversity Area.

© Howard P. Nelson

climate change's impacts on Grenada's tropical dry forests. In order to identify the key policy challenges associated with managing these forests in the face of global climate change, the project team is developing computer simulations of the response of the forests to different climate change and management scenarios. The goal will be to develop policy recommendations under different climate change scenarios, which local stakeholders can then consider as they plan for the future of these dry forests in Grenada.

The project team carried out initial surveys of dry forests in Grenada during July 2014 with the assistance of the GDFNP. These data are currently being analysed at the University of Chester, where the climate change models are being developed. In the meantime, the GDCP has been developing data sharing agreements with several Government of Grenada partners. Further field work and meetings with stakeholders to discuss potential policy issues that may arise from the modelling scenarios are planned for January 2015. 



Dr. Howard P. Nelson analysing plant specimens from the dry forest sample plots in Grenada.

© Howard P. Nelson

Climate Change Adaptation and the Struggle Against Erosion and in South-East Haiti



Coordination Régionale des
Organisations du Sud-Est

- *Clémentine Blondon, Agronomes et Vétérinaires sans Frontières*

Pressure on agriculture

Haiti's geographic location, climate and topography make it very vulnerable to extreme meteorological events and natural disasters. The effects of climate change are already in evidence: there has been an increase in temperature and a greater variation in rainfall patterns, linked to extreme events such as hurricanes, flooding and drought. In the Michineau commune in the South-East Department, extreme events are already causing significant damage to agricultural production and exacerbating the problem of erosion. Given the area's topography and rate of deforestation, erosion is one of the main sources of pressure on agriculture, and is linked to soil loss and mud slides.



The exposed roots of this tree show the severity of the erosion problem in the Michineau area. ©Clémentine Blondon

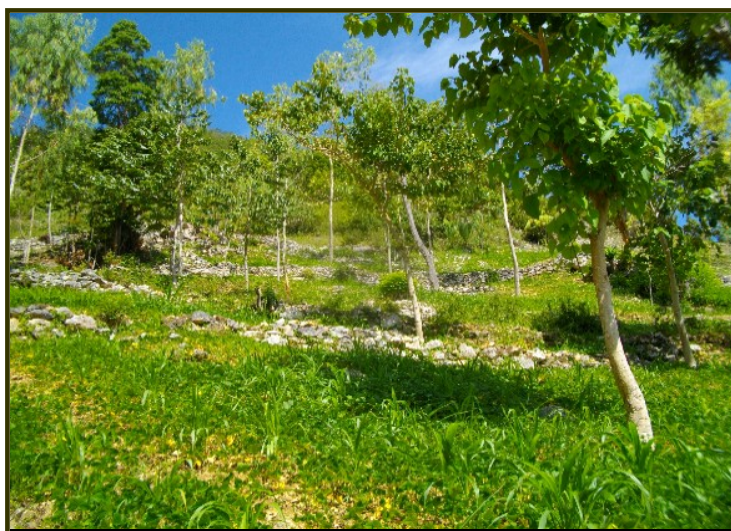
Combating land degradation

Agronomes et Vétérinaires sans Frontières (AVSF), along with local partner Coordination Régionales des Organisations du Sud-Est (CROSE) have been working with the farmers of Michineau since 2007. Through a Critical Ecosystem Partnership Fund (CEPF)-financed project, entitled "Forest Diversified Restora-

tion in the Fonds Melon River Basin, South-East Haiti" which began in 2012, AVSF is reforesting plots (tree plantations) and putting in place anti-erosion measures, such as stone walls and grass strips.


Lessons

Seven years later, several observations can be made: the terracing and other anti-erosion measures introduced on the slopes and the gullies decrease run-off and erosion during heavy rainfall. Crop diversification has also helped reduce the impact of climatic events on the farmers' incomes by increasing their profit centres.



A reforestation plot in Michineau with stone walls and trees. Farmers also cultivate maize and beans in the plots. ©Clémentine Blondon

While the tree plantations are doing well, the impact on the erosion has been limited. Trees can play an important role in risk management and climate change mitigation, but they must be combined with other methods, such as anti-erosion structures, improvements to cultivation techniques, and soil cover preservation. Consequently, the project is being now reoriented towards agro-forestry to integrate improvements to agricultural production and productivity with environment preservation.

Finally, as Haitian farmers have long known, diversification is an excellent strategy for managing risk, especially climatic risk. In the future, the project will continue diversifying the plots, the cultivated species and the profit sources of the farmers, while working with them to develop adaptive, sustainable and resilient production systems. 

Caribbean Reflections from the IUCN World Parks Congress 2014

- Anna Cadiz, Regional Implementation Team (RIT) Manager, Caribbean Natural Resources Institute (CANARI)




Conservation is self-preservation

"Conservation is self-preservation," said wildlife photographer Adrian Steirn, during the closing plenary of the IUCN World Parks Congress (WPC) 2014, which took place in Sydney, Australia from 12—19 November. Truer words were never spoken, especially for the Caribbean where the development challenges faced by our small islands weigh heavily on limited natural resources. The significance of protected areas to the development dialogue must be a cornerstone message in our communications and conveyed to stakeholders who have not traditionally been part of the 'conservation conversation' including the finance, planning, transport, and agricultural sectors, businesses and people who live in urban areas.

New impetus for the conservation and sustainable development paradigm

The intricate link between conservation and sustainable development is not new thinking, but the WPC 2014 underlined the need to better demonstrate the value of protected areas as critical spaces helping to sustain our economies, conserve cultures and promote wellbeing. Maintaining ecosystem services, providing jobs, supporting the tourism industry and increasing resilience to climate change and natural disasters are a few ways that protected areas can contribute to the Caribbean development agenda. However, tapping this potential needs targeted support towards building the capacity of protected area staff, local communities, governments and other key stakeholders. Well coordinated capacity building efforts that are Caribbean-specific and tailored to addressing needs at the site level are also key. Improving governance at both the site and system level within the Caribbean requires appropriate frameworks that ensure equitable and effective protected area systems. Additionally, investments in capacity building and good governance must go hand in hand with an enabling policy environment.

The sheer diversity of the Caribbean region is a challenge but also a strength - we have so much to learn from each other as neighbouring islands facing distinct challenges and leveraging unique opportunities. Fostering lessons learnt and best practices and sharing these experiences more effectively is fundamental to our progress as a region. 

New on the Eco-Index!


- *Dipika Chawla, Rainforest Alliance*



CEPF has given a grant to the Rainforest Alliance (RA) to work with fellow grantees to publish profiles of their projects on the Eco-Index. In addition, RA staff feature a select number of projects in the Eco-Index's "Stories from the Field" and *Eco-Exchange* publications, and organise and facilitate webinars among grantees and with recognised experts.

All grantees in the hotspot are encouraged to participate; to add your project to the Eco-Index database, please visit: www.eco-index.org/add, or contact Dipika Chawla at dchawla.consultant@ra.org.

Projects recently added to the Eco-Index:

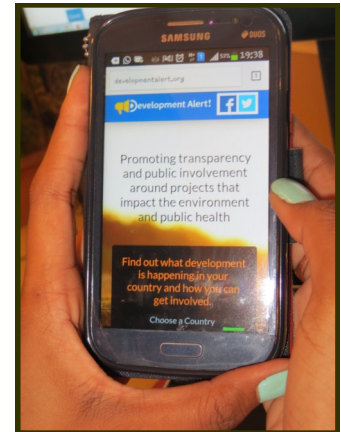
- Building Support for the Portland Bight Protected Area in Jamaica - <http://eco-index.org/search/results.cfm?projectID=1599>. *Jamaica Environment Trust (JET)*
- Building the Capacity of Civil Society to Shape Public Policy Reform in the Caribbean to Protect Biodiversity and Ecosystem Services - <http://eco-index.org/search/results.cfm?projectID=1598>. *World Resources Institute (WRI)*
- Developing and Implementing a Participatory Nature Tourism Strategy for the Key Biodiversity Area of Nalga de Maco National Park and Rio Limpio, Dominican Republic - <http://eco-index.org/search/results.cfm?projectID=1523>. *Sociedad Ornitológica de la Hispaniola (SOH)*
- Ensuring Biodiversity Conservation in Sierra de Bahoruco National Park through Strategic and Participatory Activities, Dominican Republic - <http://eco-index.org/search/results.cfm?projectID=1601>. *Sociedad Ornitológica de La Hispaniola (SOH)*
- Floristic Survey of the Hellshire Hills, Manatee Bay, and Goat Islands, Jamaica: A Contribution to Improved Protection and Management of the Jamaican Iguana - <http://eco-index.org/search/results.cfm?projectID=1600>. *Caribbean Wildlife Alliance (CWA)*
- Promoting a Payment for Environmental Services Scheme through Economic Valuation of Water Resources in the Quita Espuela and Guaconejo Scientific Reserves, Dominican Republic - <http://eco-index.org/search/results.cfm?projectID=1602>. *Instituto Tecnológico de Santo Domingo (INTEC), República Dominicana*
- Protected Area Strategy and Ecosystem Sustainability in the Massif de la Hotte's Key Biodiversity Area, Haiti - <http://eco-index.org/search/results.cfm?projectID=1597>. *Société Audubon Haïti* 

In Brief...

Development Alert! is Live

In our last issue of *Capacité*, we reported on an interactive website that was being developed by The Access Initiative of the World Resources Institute (WRI) and their local partner, the Jamaica Environment Trust (JET) to provide easy-to-understand information about proposed developments in Jamaica and their environmental impacts. The website is now live. Development Alert! was launched in Kingston, Jamaica on 20 November 2014.

Development Alert! is an important tool for transparency and public accountability in development decision making in Jamaica. Users can click on a proposed development to get basic information about it, including the name of the project's proponent, its exact location, the date of the development application, and the status of the application or permit. More detailed documents, including copies of Environmental Impact Assessments, are also available.



© Nicole A. Brown

For more information, visit the website at www.developmentalert.org

Sharing Experiences in Conserving Biodiversity in the Dominican Republic

More than 50 representatives of environmental NGOs, donor organisations, the Dominican Republic's Ministry for the Environment and Natural Resources, academic institutions, as well as the private sector came together for the two-day event "*Sharing experiences in conserving biodiversity in the Dominican Republic*" on 8 and 9 December 2014.



Participants in "*Sharing experiences in conserving biodiversity in the Dominican Republic*," 8–9 December 2014.

© Leida Buglass

As experiences, results and lessons learnt in executing CEPF-supported projects were shared, one thing that stood out was the utility of the rich, fruitful and diverse alliances and partnerships created between environmental NGOs, philanthropic private sector partners, academic institutions as well as international conservation institutions and last, but not least, the Dominican Ministry for the Environment.

The two-day event was sponsored by the CEPF and l'Agence française de développement (AFD) - one of the seven CEPF donors – and supported by the Caribbean

Natural Resources Institute (CANARI). It included a workshop session in Santo Domingo, a field trip to La Humeadora National Park and a reception for the opening of the Dominican leg of the travelling exhibition, "Nature: the 35 wonders of the world". Read more about the event and view photographs [here](#).

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We want to hear from you!

All grantees are invited to contribute updates on their projects to Capacité.

Please share copies of Capacité with others in your network and send us your comments and feedback.

About CANARI

The Caribbean Natural Resources Institute (CANARI) is a non-profit organisation registered in Saint Lucia, St. Croix and Trinidad and Tobago, with its main office in Port of Spain, Trinidad. It has 501(c) (3) status in the United States and charitable status in Trinidad and Tobago.



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Our mission is promoting and facilitating equitable participation and effective collaboration in the management of natural resources critical to development in the Caribbean islands, so that people will have a better quality of life and natural resources will be conserved, through action learning and research, capacity building and fostering partnerships.

CANARI's geographic focus is the islands of the Caribbean but its research findings are often relevant and disseminated to the wider region. Our programmes focus on research, sharing and dissemination of lessons learned, capacity building and fostering regional partnerships.

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