Food and Agriculture Organization of the United Nations

IWEco
integrating water, land and ecosystems management in caribbean small island developing states
#CaringForOurFuture

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Caribbean Environment Programme

United Nations Decade on Ecosystem Restoration 2021-2030

"Restoration Begins with Me!"

Commemorating the launch of the UN Decade on Ecosystem Restoration in the Caribbean

Acknowledgements

We thank those who took the time to submit their photos to our Restoration Begins with Me campaign, for sharing their work in ecosystem restoration in their communities. In particular, we acknowledge submissions from the following:

- **Sarah LaRocque**, Commonwealth of Dominica
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COVER IMAGE:
Ministry of Planning and Development, Trinidad and Tobago

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Introduction

In March 2021, the United Nations Environment Programme (UNEP) Global Environment Facility-funded Integrating Water, Land and Ecosystems Management (GEF-IWEco) Project, the UNEP Caribbean Sub-Regional Offiffice (CSRO), the Cartagena Convention Secretariat and the Food and Agriculture Organization of the United Nations (FAO) Representation for Jamaica, the Bahamas and Belize, jointly invited members of the public to participate in the conversation on ecosystem restoration.

The campaign, launched on the International Day of Forests (IDF) under the theme "Restoration Begins with Me", culminated as we welcomed World Environment Day with the launch of the UN Decade on Ecosystem Restoration. We asked individuals and groups of all ages to share a photograph, accompanied by a short description, or a short video, of an activity that shows how they value and care for plants, trees and forests, and/or what these mean to them.

On 5th June 2021, in celebration of World Environment Day, each agency recognized the variety of submissions in a mosaic posted to their social media accounts. Throughout the month of June, individual submissions were also featured via social media.

We thank all those who participated in this campaign. We appreciate the very interesting and valuable submissions and we remain encouraged by the many examples of activism for ecosystem restoration in the region.

We learnt that people, individually and collectively, are caring for ecosystems in various ways throughout countries in the Wider Caribbean region. Some plant and look after trees and seedlings- monitoring their growth and conducting research, while other were teaching about the need to restore degraded areas. In some cases, there are those who allow some areas to revert to their natural state of wildness, or simply appreciate sharing the beauty and value of threatened ecosystems and the flora and fauna they support.

We hope that seeing their stories will inspire more to action, and if already active, inspire more to share their stories. In this way we can begin the Decade of Ecosystem Restoration with hope for a healthier planet.

Photos (Top-Bottom): Zephs Luc (Trinidad and Tobago), Mangrove Maniacs (Bonaire), Vicki Radmass, Anjolique Dance Company (St. Kitts and Nevis)

"Restoring waterflow and circulation as well as reforestation are key operations. In the mangrove channels we keep nurseries where we plant and grow young seedlings. After about 5 months we replant them in areas where mangroves have been lost."

- Mangrove Maniacs, Bonaire

"There are only 25 mature palms left and the population is declining, mostly due to invasive herbivores. Thankfully, most of these palms, including this one, will soon be enclosed within a fence that will keep these animals out, so the population can recover."

- Quirijn Coolen, Director of Bon BonBèrdè, Bonaire (right)

Why Ecosystem Restoration?

The 2030 Agenda for Sustainable Development seeks to end poverty, conserve biodiversity, combat climate change and improve livelihoods for everyone, everywhere. These objectives, captured in the 17 Sustainable Development Goals (SDGs), are unlikely to be met unless ecosystem degradation is stopped and ecosystem restoration is priortised.

Ecosystem Restoration means stopping, preventing, and reversing the exploitation and damage that has been done to our planet's ecosystems. For a long time, we have been exploiting nature and damaging our ecosystems. Across the world, we are losing millions of hectares of forests every year. According to current predictions, we could lose up to 90 per cent of global coral reefs by 2050.

Ecosystem restoration can help reduce the loss of biodiversity, improve agriculture, mitigate the impact of extreme environmental events and increase our ability to adapt to the effects of climate change.

In the recently published report, *Becoming #GenerationRestoration*, UNEP and FAO elaborated the multiple benefits of ecosystem restoration, including its contribution to maintaining food security, and combatting poverty growth. Committing to ecosystem restoration now will also help with keeping global temperatures low in the years to come. The report showed that key investments in dry agriculture, mangrove protection and water management will make a vital contribution to building resilience to climate change.

Ecosystem degradation affects the well-being of an estimated 40 per cent of the world's population. Only with healthy ecosystems can we enhance people's livelihoods counteract climate change and stop the collapse of biodiversity.

While we are already making great efforts to preserve our ecosystems, more needs to be done to ensure we are protecting areas that are vulnerable to degradation from human intervention, global warming or climate change.

Ecosystem degradation is a particular threat to the biodiversity of Small Island Developing States (SIDS). The high rate of endemism in SIDS means that loss of habitats due to ecosystem degradation can result in extinction events, which in turn has severe further consequences upon that SIDS environment and the people who depend upon it.

Ecosystem protection and restoration is a key component of sustainable development in SIDS. Healthy marine and coastal ecosystems reduce issues such as food insecurity, unemployment, and poverty. Healthy mangroves provide natural protection against storm surges and flooding during extreme weather events.

United Nations Decade on Ecosystem Restoration

The United Nations General Assembly has proclaimed the UN Decade on Ecosystem Restoration following a proposal for action by over 70 countries. Led by UNEP and FAO, the Decade will include thousands of initiatives from institutions and organisations around the globe. The Decade runs from 2021 through 2030, which is also the deadline for the Sustainable Development Goals and the timeline scientists have identified as the last chance to prevent catastrophic climate change.

Vincent Sweeney, Head of UNEP's Caribbean Sub Regional Office, said at the launch of the UN Decade that *"the Caribbean, as a region full of Small Island Developing States, is vulnerable both ecologically and economically to ecosystem loss and the resulting climate change impacts. Our economy and livelihoods depend heavily on upholding the integrity of our ecosystems.*

It is vital that we use this opportunity to focus on restoring and conserving vital Caribbean ecosystems. At the launch of the UN's Decade of Ecosystem Restoration, we must respond to this call to action not just today, but everyday going forward."

Dr. Lorna Inniss, Co-ordinator for the Cartagena Convention Secretariat also reiterates this call to action, noting that "t*he question in our minds is 'Can we be the generation of restoration?'- Yes, we can. Indeed, ecosystem restoration begins with each of us. We have been granted the use of Earth's resources for a relatively short life span; thus our individual and collective responsibility as good stewards, caring for assets which are not our own, is to protect the health of our planet and ensure that its resources are used sustainably, for our own survival. If we commit and double our efforts, our enduring legacy will be our stewardship, protection, restoration, sustainability of ecosystems for future generations.*"

Dr Crispim Moreira, FAO Representative for Jamaica, the Bahamas and Belize, outlines the importance of ecosystem restoration in our efforts to eliminate global hunger, and stresses, *"Our trees, water, soil and forests are essential to food security as they help to maintain the environmental conditions needed for agricultural production. Yet, they are under constant pressure from degradation, pollution, and deforestation. This UN Decade for Ecosystem Restoration is for all of us to take stock of our actions and restore our planet. It is only with healthy ecosystems that we can ensure the production of good and nutritious food, build livelihoods, and counteract the impacts of climate change that we are most vulnerable to in the Caribbean.*

It is time for us to move towards more efficient, inclusive, resilient and sustainable agri-food systems that respect people and planet so that we can protect our biodiversity, natural resources to promote food security. "

Reflecting on the launch of the UN Decade of Ecosystem Restoration, IWEco Regional Project Co-ordinator Jan Betlem says, "The United Nations Secretary General, Antonio Guterres, in December 2020, said: *"Humanity is waging a war on nature". This war, unlike the conventional wars humans normally fight, will only result in losers. It will bring biodiversity loss, climate disruption and escalating pollution at a scale never before experienced by mankind; ultimately putting the existence of human beings at risk.*

Huge changes are needed in society, in the way we do business, in the economic systems that we invented; changes that benefit society as a whole both the human part and the environment which is the basis for our existence.

Governments should be in the driving seat, but instead we see hesitation and extremely slow action. Given the situation, each and every one of us needs to become an agent of change. 'Restoration Begins with Me' is the start of that change - the acknowledgement of personal responsibility for the actions that will bring about a healthier environment, healthier people and healthier communities."

"Understanding the importance of our forest ecosystems we embarked on a project through our Environmental Policy and Planning Division (EPPD) and the Institute of Marine Affairs (IMA) to restore some of the mangroves in Brickfield located in Couva, to halt some of the coastal erosion which has been occurring in that coastal community."

- The Ministry of Planning and Development in Trinidad and Tobago (above)

Photo: "*Hummingbird at Holywell, Blue and John Crow Mountain*", Linden Holness, Jamaica

"In [this photo] you can see a Red Mangrove Plato (Rhizophora mangle), where the propagule planting method was used in bamboo stakes, framed on a mirror of crystalline water that reflects the bright blue sky. It represents the renewal of life in the wetland, which through restoration methods is able to recover the beauty of what it once was."

- Ministerio de Ambiente de Panamá. Galeta Island Protected Landscape located in the Caribbean, Colón province, Republic of Panama (above)

Photo: *"My Home Garden"* , Rhonda Archer, Trinidad and Tobago

Achieving Ecosystem Restoration in the Caribbean

Ecosystem degradation can have disastrous effects on our lives in the Caribbean. As a region prone to extreme weather events, such as hurricanes and earthquakes, it is important that we understand the protection that Caribbean ecosystems provide for us. For instance, reforestation efforts have proven to reduce the destructive impacts of floods and mudslides after heavy rain, coral reefs help to absorb the impact of large waves and protect coastlines, while mangrove restoration reduces beach erosion and protects coastal areas. However, the Caribbean is losing ecosystems to degradation and neglect, with significant portions of dry forest, mangroves and coral reefs in the region being lost.

Although 20.3% of the terrestrial and marine areas in the Latin American and Caribbean region are protected, the regions natural ecosystems continue to be transformed by degradation or replacement. Transformation into human dominated landscapes has occurred in 66% of Caribbean dry forest, while direct exploitation of landscapes and ecosystems is the likely cause a significant loss of coral reefs, seagrass beds and mangroves.

Reimagining how we approach our environmental surroundings is crucial if we are to achieve the UN Sustainable Development Goals. Shifting to ecosystem based management, that prioritizes the way ecosystems interact with each other, can address the challenges of intertwining human and ecological wellbeing.

"Conserving and restoring mangroves is essential to fighting climate change due to their ability to sequester carbon at ate of two to four times greater than tropical forests and store up to five times more carbon. **Not only are they beautiful, but they save lives."**

- Sara La Rocque, Dominica

"Foundation Hofi Chiki is Reforesting by planting Tiny Forests in urban areas, using Internationally proven techniques, mixing modern science and old-school knowledge & technology while being rooted in local society. This forest at Klein College is the first Tiny Forest planted in the Dutch Caribbean. At least 450 indigenous shrubs, shrubs and trees have been planted in this forest. The 41 different species range from common to extremely rare trees."

- Hofi Chiki Foundation, Curacao (above)

Individual and Collective Responsibility

The goals we are aiming to achieve during the UN Decade on Ecosystem Restoration are ambitious. In order to meet these goals it is necessary for us to recognise our responsibility to make changes in our individual lives, as well as to encourage change within our communities.

Examples of actions we can take as individuals:

Observation and Appreciation:
Observing natural landscapes and ecosystems can help to change our perspectives. Ensuring that we understand and appreciate the role that ecosystems have in our daily lives contributes to changing priorities and attitudes, and results in greater interest and willingness to care for and protect the nature that surrounds us. Learning about and sharing our understanding of the interconnectedness of living things, especially when species and ecosystems are under threat, not only transforms the way we see and treat them, but motivates us to make others more aware as well, ultimately helping to inspire the change that is urgently needed, one person at a time.

IIn observing the mangrove forests in Dominica, Sara La Rocque (page 8) notes in her submission, that the mangroves, in addition to protecting nearby villages from coastal erosion, absorbing impact from extreme weather events. Additionally, they provide vital habitats, and sequester carbon at a greater rate than tropical forests, while storing up to five times more carbon, making them key in our fight against climate change. She adds that, "*not only are they beautiful, they save lives*". If we are to respond to the threats to ecosystems and achieve the goals set out in this decade, it is vital that a transformation in the way we see the natural world and our relationship with it, takes place. The sharing of observation, perception and experience is an important contributor to that.

Reversion or 'Re-Wilding':
Rewilding can be defined as the process of restoring the structural and functional complexity of degraded ecosystems while gradually reducing the human influence. It is a common approach promising great results in any size space, and is an example of reversing ecosystem degradation and giving habitats back to animals both large and small.

A perfect example of rewilding can be seen in Zeph Luc's photographic submission to the Restoration Begins with Me campaign (page 12, bottom), which demonstrates that gardens, lawns and other plots of land can become vibrant living ecosystems to a vast number of animals which thrive in unmodified and undisrupted "wild" environments. Simple actions such as allowing 'weeds' and other plants to grow freely has a significant influence on the plants and insects around you. In a world where vital pollinators such as bees, other insects and plants are under threat, simply growing out your lawn or giving up the toxic weed killer can go a long way towards saving our planet. As Zeph puts it *"grassy plots are actually environments as complex and relevant for Trinidad's ecosystem as any other"*.

Recognising and Taking Responsibility:
We are all responsible for the protection of the environment, and all of us can make meaningful changes in our own lives. We must take responsibility for our own individual impacts upon the environment and make changes where we can. In his video submission, Jonathan Joseph (page 13, top left), an environmental scientist and coastal researcher from Saint Lucia, explains that "*protecting, nurturing and educating [about mangroves], an irreplaceable limb on the coastal body, is a duty, but also my passion and pleasure*".

Growing Plants:

The act of growing and caring for plants is among the best ways to restore and care for local biodiversity and the ecosystems they depend upon, whether it is an entire garden or a single plant (Vikki Ramdas, page 2, third photograph down) or a whole garden (Rhonda Archer, page 1, bottom left).

Examples of collective actions we can take include:

Collaboration between Governments, Non Governmental Organisations, and citizens:

In order to achieve the goals of the UN Decade, collaboration between Governments, NGOs and private citizens is necessary. Such collaboration and the resulting synergy widens the reach of our efforts and increases the potential for greater impact and sustainablility in protecting and restoring ecosystems.

We can see such collaboration in the actions of the Ministry of Planning and Development in Trinidad and Tobago, which, while working with the Institute of Marine Affairs and over 100 volunteers, transplanted mangrove plants from the Caroni Swamp to the Brickfield Mudflats over a two day period (page 6, top, page 13, middle). Restoration on the scale of the goals outlined in UN Resolution 73/284 requires an 'all hands on deck' approach, and will only be achieved when we work together.

Application of Innovative Methods

Collaboration on innovative ideas is crucial if our restoration efforts are to meet the challenges brought about by climate change. The Ministerio de Ambiente de Panama (page 7) is using an innovative method for their restoration efforts on the Red Mangrove Plato (Rhizophora), using the propagule planting method in bamboo stakes, allowing the soil level to be raised above the average flood level. This protects the propagule against currents and predators, increasing the chances of successful restoration. Adaption methods such as this can help mitigate degradation even in unpredictable circumstances.

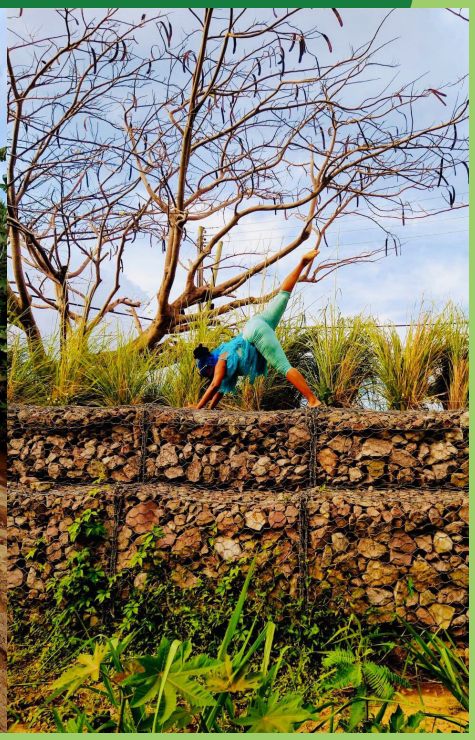
Public Awareness Raising and Education Through Creative Expression

Creative expression is a wonderful tool in increasing interest and raising public awareness. It can invoke an emotional response in an audience and thus people understand cause and effect, linkages and consequences in a very urgent way. Educating people about the importance of protecting and restoring our ecosystems using creativity and art, as the Anjolique Dance Company (page 12, top) has shown, helps us to realise exactly what is at stake. Participating in such an experience, whether part of the creative expression, or part of the audience, can be transformative.

Whoever we are, wherever we are, and whatever we do, we can make a difference. We thank those who participated in the Restoration Begins with Me campaign for reminding us of this responsibility in these early days of the UN Decade on Ecosystem Restoration.

"There are many ways to control erosion in our ghauts. We are all guardians of the ghauts and must treat them with care and respect. Enjoy and protect your ghauts!"

- Anjolique Dance Company, Saint Kitts and Nevis



"Most people have long seen yards as merely green areas to be used for their own enjoyment or useless plots that can be turned into an apartment. What they fail to realize is that the grassy plots are actually environments as complex and relevant for Trinidad's ecosystem as any other."

- Zeph Luc, Nature Photographer, Trinidad and Tobago

Photo: Jonathan Joseph, St Lucia

Photo: Zeph Luc, Trinidad and Tobago

Photo: Mangrove Maniacs, Bonaire

Photo: Zeph Luc, Trinidad and Tobago

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Image: Mangrove Maniacs, Bonaire