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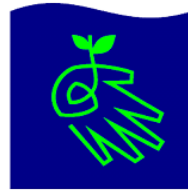
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Sustainable Development Goals being addressed



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IWeco:link

Quarterly newsletter of the GEF-funded Integrating Water, Land and Ecosystems Management in Caribbean Small Island Developing States Project

www.iweco.org



(l) St. Kitts, with Project area highlighted, and, (r) Nevis, showing quarry locations



Cades Bay Wetland, Nevis

Six Principles for Good Forest and Landscape Restoration



Restoration of degraded land and reforestation, which include tree planting, are important for climate change mitigation, sustainable livelihoods and quality of life. All of IWeco's National sub-Projects address land degradation to some extent and are either already, or soon will be, implementing land restoration and reforestation measures.

In 2018, UNEP, along with 30 organizations in the Global Partnership on Forest and Landscape Restoration (GPFLR), published guidance which includes the following six principles for good restoration practices:

1. Focus on landscapes
2. Engage stakeholders and support participatory governance
3. Restore multiple functions for multiple benefits
4. Maintain and enhance natural ecosystems within landscapes
5. Tailor to the local context using a variety of approaches
6. Manage adaptively for long-term resilience

The full report is available at:

http://www.forestlandscaperestoration.org/sites/forestlandscaperestoration.org/files/resources/GPFLR_FINAL%2027Aug.pdf

Restoring Land and Water Quality in Saint Kitts & Nevis

IWeco's Saint Kitts and Nevis National sub-Project aims to reduce and revert land degradation within the College Street Ghaut watershed in Saint Kitts, and quarry sites and sand-mined beaches on Nevis, through an integrated water, land and ecosystems management approach.

The Project was officially launched in February 2019 and is being implemented over a four-year period. National executing agencies are the Department of Environment, Ministry of Agriculture, Marine Resources, Cooperatives, Environment and Human Settlement, Government of St. Kitts and Nevis, and the Department of Physical Planning and Environment, Nevis Island Administration.

Saint Kitts

The College Street Ghaut watershed covers 662 hectares (1,635.8 acres) and includes upland natural forest, former

(Continued on page 2)



Caribbean Public Health Agency

CARPHA

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SGP The GEF Small Grants Programme

(Continued from page 1)



Livestock, solid & liquid waste, College St. Ghaut

sugar cane lands and intensive urban development.

Pressure from urbanization is increasing. Some of the land in the upper reaches of the watershed previously dedicated to sugar cane production has been converted to other agricultural pursuits and non-agricultural activities, especially housing. All this has resulted in more rapid surface water runoff following rainfall events, with properties located close to the riverbanks being vulnerable to bank failure. There is also inadequate waste management from small scale livestock farms located near to the ghaut. This results in increased sediment and waste entering the nearshore water which negatively impacts water quality.

Poor solid waste disposal within the ghaut results in blockages, contamination and unsightliness. The storm water drainage infrastructure is inadequate and there is no centralized collection and treatment of wastewater. Grey water from individual houses that should be channelled into septic tanks is instead discharged along the street into open channels and eventually into the ghaut and the marine environment.



Grey water flows through open channels in the street

Nevis



Quarries at Indian Castle, Nevis

In Nevis, construction, due to growth in the tourism and real estate sectors, has increased significantly. The issue of land degradation associated with poor

quarry management practices and the resulting excessive sediment discharge needs to be dealt with urgently. Quarries are currently a primary source of sedimentation in the ghauts, resulting in offshore reef and mangrove swamp degradation. There are several seasonally active, privately operated quarries on the island, some which are on land leased from Government. Most of these operations do not implement measures to stabilize displaced overburden or mitigate the flushing of sediment into ghauts and the marine environment during heavy rains. The excavation of rock from hillsides, ghauts and fields, with no recovery plans, has resulted in slope failure, degraded and unsightly quarry lands, loss of bushland vegetation, sedimentation affecting both terrestrial and marine ecosystems. High



Ghaut, Indian Castle, Nevis

sedimentation rates have affected Nevis' coral reefs negatively, with potential impacts to the coastal fishery and dive operations. Prevailing coastal currents transport silt from the quarries around to marine ecosystems on the west coast, resulting in negative impacts on corals from siltation.

Project Activities and Status

In 2019, rapid water and land-related diagnostic analyses have been conducted for the College Street Ghaut watershed, Saint Kitts, as well as quarry sites and sand-mined beaches on Nevis, in order to assess priorities on the ground and to begin planning for the workplan activities.

In **St. Kitts**, the project interventions will focus on installation of soil conservation measures within the College Street Ghaut. These measures will include vetiver contour rows; installation of new, and maintenance of existing, gabion baskets inside the ghaut; stabilization and regular maintenance of existing retaining walls and bridges; and clearing of culverts, drains, outfalls and roads of debris and sediment along the ghaut. In addition, a feasibility study will be undertaken to assess solutions to the greywater situation and look at the broader issue of centralized wastewater collection and treatment in the area.



Inspection team, New Road, College St. Ghaut

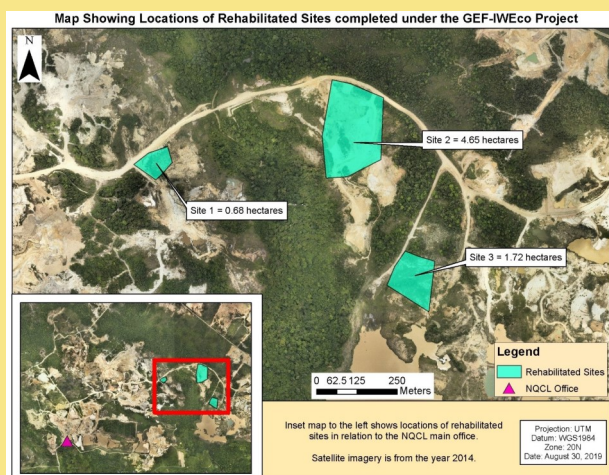
In **Nevis**, on-site investments will include stabilization of ghauts and water harvesting systems to reduce quarry runoff into the ocean; replanting of mangroves and other coastal plant species as a step towards restoration of coastal wetlands in Bath Bogs; coral reef surveys and restoration at New River, Indian Castle, Dogwood and Long Haul; and reforestation of at least one non-productive quarry area located at Hicks Estate.



Red and white mangrove, Long Haul, Nevis

For both islands the project will provide support for long-term sustainability and replication through policy, regulatory support, and exchange of best practices. Amendments to the Development Control and Planning Act, if enacted, would provide the legislative foundation for the development of regulations to govern quarry operations on Nevis, including environmental management and performance standards.

The IWECO Project will also contribute to forest cover rehabilitation over degraded areas and foster conservation of existing forests to maintain the integrity of ecosystem services over the College Street Ghaut watershed in St Kitts and across the eastern landscapes in Nevis where the majority of land degradation associated with quarrying is occurring. Further downstream, impacted mangroves, wetlands and coral reefs will also be restored. Carbon sequestration is also expected as a result of on-site land and forest cover investments at various sites within these watershed areas on both islands.



Measuring Progress:

Towards Achieving the Environmental Dimension of the SDGs

Did you know that only 23% of the environment-related SDG indicators are on track to meet the target if current trends continue?

For 68%, there is not enough data to assess progress and for 9% there is not progress toward achieving the target.

Specifically, progress has been made on all 11 environment-related SDGs indicators related to policy, financial and institutional processes with available data; there has been mixed progress in improving access to environmental resources and reducing the impacts of environmental degradation on human health and food security; and there is either no data or no progress towards all 12 of the SDGs targets related to the state of the environment.

In order to achieve the environmental dimension of sustainable development, there is a need to scale up environmental action and also to improve environmental monitoring and analysis.

This report, published by UNEP in 2019 is derived from the sixth report in the GEO series (GEO-6; UNEP 2019a). This publication complements the GEO and provides an overview of the current state of the environmental dimensions of sustainable development based on the SDG indicators - including the availability of statistical and spatial data, analytical methods and visualisations - and identifies knowledge and information gaps in terms of assessing progress towards the environmental dimension of the SDGs.

Find the report at:

<https://www.unenvironment.org/resources/report/measuring-progress-towards-achieving-environmental-dimension-sdgs>



Transforming Degraded Land and Attitudes too!

IWEco's Trinidad & Tobago National Sub-Project continues to show how land degradation can be reduced and reversed, and ecological function restored, in exhausted or abandoned quarry sand and gravel pits by reintroducing natural vegetation, reducing sedimentation and flood risk.

Three sites at the state owned and operated National Quarries Company limited (NQCL) were initially the focus of rehabilitation activities.

1. One 0.5 hectare area focused on planting of tree species for food production, creation of wildlife habitat and regeneration of original forest species (October 2018 – July 2019);
2. One 1.7 hectare area of a back filled exhausted quarry pit devoid of soil nutrients with severe gully erosion occurring (May 2018 – July 2019). There, pilot interventions included soil nutrification through the creation of mulch using waste beer hops, tree and grass cuttings and sargassum which would otherwise go to a landfill; the planting of vetiver grass to address soil erosion; the creation of living check dams to stem gully erosion and water run off; and, the establishment of a plant nursery which would serve as a source of plants for other areas to be rehabilitated under the project.
3. One 0.5 hectare of compacted backfilled exhausted quarry pit where forest species enrichment is being tested to determine best species for rehabilitation of quarries (October 2018 – July 2019).

GPS and Mapping Exercise of Rehabilitated Sites

Interventions at all three sites were completed in July 2019 although maintenance continues twice weekly. On 22nd August, descriptive project signage was installed at all three sites. On 29th August, the Environmental Management Authority (EMA), which is responsible for project implementation, conducted a GPS mapping exercise to more precisely determine the size of the areas rehabilitated. When efforts began in May 2018, the team estimated that a total of 2.7 hectares would be rehabilitated but this has actually been exceeded by 4.35 ha. The mapping exercise found that a total area of 7.05 ha was rehabilitated in the period between May 2018 and July 2019.

Assessing the Environmental, Social and Economic Benefits

In September 2019, the Project was given approval by

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Caribbean Youth - Key Actors and Champions of Sustainable Development

“The participation of youth as architects and enablers of the Region’s development is a goal that must be continually strived for. The Caribbean as a principal global proponent of sustainable development must remember that sustainable development is nothing more than a meaningless theory if young citizens, the leaders and shapers of the future are not allowed to fully engage and participate in the process.”
- Caribbean Youth Environment Network, 2019

The majority of the Caribbean’s population is under thirty years old. From 12 – 13 August 2019, the Caribbean Youth Environment Network (CYEN) held its 13th Congress and celebrated its 25th Anniversary with a Silver Jubilee Commemorative Session, in Georgetown, Guyana.

Youth leaders and young development practitioners whose work focuses on environment gathered to develop a strategy and formulate a road map that would allow for greater and more meaningful engagement and participation of young Caribbean citizens in environmental management and the implementation of the SDGs. Among its participants were lively representatives of the various CYEN country chapters, students from UWI, including the UWI Youth Development Programme, and, interested youth. Young people (ages 15 – 32) of various backgrounds make up CYEN’s membership and those participating in the meeting included young farmers, lawyers, teachers, accountants and students of various disciplines.

Plastics and marine pollution, Integrate Water Resources Management (IWRM) and Biodiversity were on the Agenda. CYEN members shared presentations on their collaborative work in the areas of marine litter, IWRM and biodiversity.

In addition, representatives of UN ECLAC, and regional elected advocates, introduced the Escazú Convention, the region’s first ever legally binding treaty on environmental rights. The Agreement is about Access to Information, Public Participation and Justice in Environmental Matters.

Following closure of the Youth Summit on Tuesday 13th, CYEN hosted a Town Hall at the National Public Library featuring the Escazú Convention, highlighting the fact that Guyana is the first country to ratify the Convention. It was quite well attended and a great example of youth advocacy.

IWEco’s Communication Specialist, Donna Sue Spencer, represented the Cartagena Convention Secretariat, in particular its work on Marine Litter, and also introduced the IWEco Project to CYEN with a presentation in the Session on IWRM on 13 August. CYEN has expressed interest in collaborating with the Project on a regional education or public awareness activity in 2020, as well as in some of the National sub-Projects and activities.



Above, participants view IWEco’s “Breaking Up with Plastics” video; right, 1-3— Working groups and discussions throughout the sessions were lively and productive; right, 4— Participants from St. Kitts and Suriname show off the posters provided by the Global Partnership for Marine litter (GPML) Car-ibe; and right –5, presentation by the Guyana Extractive Industries Transparency Initiative at the Town Hall Meeting on 13 August 2019.



Large Marine Ecosystems Annual consultative meeting,
18 September 2019

Sharing Management Approaches, Tools and Best Practices amongst GEF projects

IWEco’s Regional Project Coordinator, Jan Betlem, attended the **5th Targeted Regional Workshop for GEF IW Projects and Partners in Latin America and the Caribbean**, and the **Large Marine Ecosystems (LMEs) annual consultative meeting** titled **“Building Partnerships around LMEs for the 2030 Sustainable Development Agenda”**, organized by IW:LEARN, from 15 – 19 September in Cartagena, Columbia.

The GEF IW:LEARN project’s (www.iwlearn.net), latest phase began in 2016 and continues until 2020. This regional workshop for GEF IW projects Latin America & the Caribbean, aims to transfer management approaches, tools and best practices amongst GEF projects and partners, thereby building capacity.

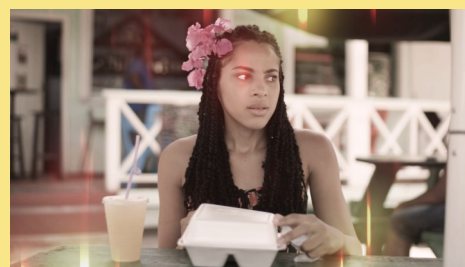
Day 1 of the Training Workshop was dedicated to the **Source-to-Sea Approach** (conducted by Ruth Mathews of the Stockholm International Water Institute) and how to apply these in projects and share insights on the benefits of source-to-sea management in addressing critical freshwater and marine challenges.

Day 2 was dedicated to **Economic Valuation** (conducted by UNIDO expert, Christian Susan, and UNIDO consultant, Eduard Interwies) and focussed on the systematic integration of economic valuation (EV) of “wet” ecosystem services into decision making processes. A very interesting, step-by-step methodology was presented in order to define economic value to ecosystems services and how this can be applied in projects.

IWEco is planning a regional training on Ecosystem Economic Valuation in 2020. This would be a general introduction for policy makers followed by more technical training, leading eventually to a full Economic Valuation of one of the Project sites.

The RPC also made a presentation on the IWEco Project at the annual LME Consultative Meeting which took place on 18 September.

IWEco Launches “Caribbean Breaking Up with Plastics” video!



Find it here and help us to spread the message:

<http://www.iweco.org/resources/video-gallery>

Launched via social on 31 July 2019. Look out for it in the regional media in coming months.

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Quarry Rehabilitation Champions, NQCL site

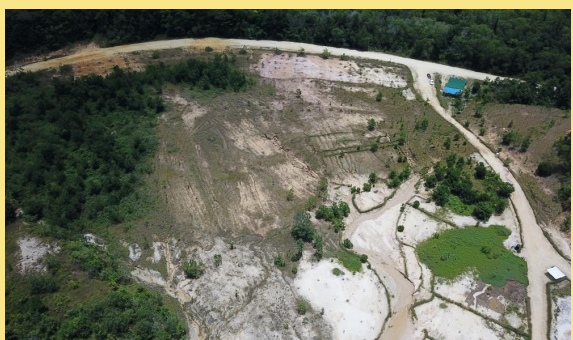
NQCL to cultivate an additional 5 hectares of land opposite Site 1. Quarry Rehabilitation Champions from the nearby community will use the Taungya System, planting agricultural crops amongst the existing forest tree species. This is significant because it can provide persons trained in land rehabilitation and sustainable planting techniques with additional livelihood opportunities.

At a workshop in early-September the quarry champions used the Local Green-Blue Enterprise Radar Tool developed by the Caribbean Natural Resources Institute (CANARI) to assess the environmental, social and economic aspects of their activities. This will be covered in the next issue of 'IWeco:Link'.

Efforts continue to identify additional sites for rehabilitation, in particular with the private sector, and significantly, promotion of the project and its benefits continue. Site visits to sensitize Permit and Compliance Officers from the EMA began in mid-September 2019.



NQCL Site 2: October 2018—Before



NQCL Site 2: August 2019—After

Exchanging Experiences in two sister projects - Pacific R2R and IWeco

IWeco's Technical Specialist, Nicole Caesar, participated in the GEF-Pacific R2R Project's 4th Steering Committee Meeting (RPSC4) and related events in Nadi, Fiji, 29 July - 2 August 2019. This was an IW:LEARN supported knowledge exchange to enhance knowledge sharing and communication within the GEF Portfolio.



A live interactive user platform was used to assess stories shared from each participating country and evaluated against the 13 guiding principles of the Pacific R2R project. As part of a Community Marketplace, participants presented and then assessed the stories in three rounds to determine which shared story or experience indicated the greatest knowledge transfer and uptake. The assessments were submitted via live survey sheet in Google docs, allowing for instant analysis and visualization of results. This useful exercise demonstrated the experiential learning that takes place at the community level, supported by project funds.

On Day 3 of RPSC4, Nicole presented a summary of the IWeco project which included the status of each participating country, an introduction to the Monitoring Dashboard and challenges faced in implementation as well as approaches being used to overcome them. Meeting discussions and queries posed by national project coordinators throughout the week suggested that similar project challenges occur in both regions.

The Pacific R2R Project has partnered with James Cook University of Australia to develop and establish a Certificate in Ridge to Reef (R2R) Sustainable Development Post Graduate Programme to build technical capacity across the region. The majority of participants in this programme are national Pacific R2R project coordinators. An attendance ceremony for 36 participants in the Programme took place on the evening of 30 July.

The course will examine issues and pressures related to project execution; communicating with policy makers and the general public; ecosystem services and the development of environmental monitoring plans.



IWEco's Media Relations and Social Media Communications Toolkit is out!



IWEco has, with the help of our Communication Partner, PANOS, produced a toolkit which is designed to help communications personnel plan, design and package information for more targeted and rewarding stakeholder communication, using the full spectrum of traditional and new media.

Initial input to the toolkit was provided by participants in the Project's Regional Media Strategy Workshop which took place in Trinidad in May 2019.

It provides a step-by-step guide grounded in best practices to help communications personnel as well as those who communicate on behalf of the project, fully leverage digital communication tactics to maximize reach.

This toolkit is primarily for project teams, partners and personnel who are responsible for, or engaged in communications about the IWEco Project. It is also a useful tool for persons involved in projects similar to, but not necessarily specific to IWEco.

Toolkit users would include personnel in national sub-project management units, governmental agencies, and Civil Society Organisations (CSOs).

The toolkit assumes that projects and project teams already have an explicit communication strategy and/or plan, with objectives, audiences, messages and partners clearly defined. As such, it is intended to help in the implementation of that strategy / plan, with a focus on media relations and the optimal use of social media.

You will find it on our website: www.iweco.org at:

http://www.iweco.org/sites/default/files/2019-10/GEF_IWEco_Project_Media_Toolkit_Sept2019_0.pdf

Saint Kitts high schools turn out in force for International Coastal Clean-up (ICC) 2019!

More than 150 Form 4 and Form 5 students from all the local high schools came together to clean-up 6 major beaches on 26th September 2019, as the Saint Kitts Department of Environment held their annual national coastal clean-up as part of the international effort spearheaded by the Ocean Conservancy.



The ICC is the largest one day volunteer event in the world and usually takes place on the third Saturday in September. Volunteers collect, sort and record the kinds of debris found on beaches.

The IWEco SKN National sub-Project support-

ed the effort in Saint Kitts, which would have been one of many in our participating countries.





The IWEco Project will participate in the **28th Annual Conference and Exhibition of the Caribbean Water and Wastewater Association** which takes place in Frigate Bay, St. Kitts and Nevis, 14 – 18 October 2019. The theme this year is *“Securing the Caribbean’s Future: Financing the Water and Waste Sectors.”*

In addition to participating in the Exhibition (14–17 October) and having a dedicated technical session (16 October), IWEco is providing support to the 3rd High Level Forum on Waste as well as to the 15th High Level Forum on Water. The Project will be represented by Jan Betlem, Nicole Caesar and Donna Sue Spencer.

INTEGRATING WATER, LAND AND ECOSYSTEMS MANAGEMENT
As a means of enhancing climate resilience and sustainable development

PRESENTING
Guiding Principles of IWEco
Nicole O. Caesar, Ph.D
Associate Programme Management Officer
IWEco National Sub-Project in St. Kitts and Nevis
Halla Sahely, Ph.D
GEF IWEco SKN National Project Coordinator
Stakeholder Engagement in IWEco
Donna Sue Spencer
Communications Specialist
The Waste2Work Initiative
Margot Mesnard, Partnerships Manager, Waste2Work St. Maarten

Wednesday, Oct. 16
8:30-9:30am
Grenada Room

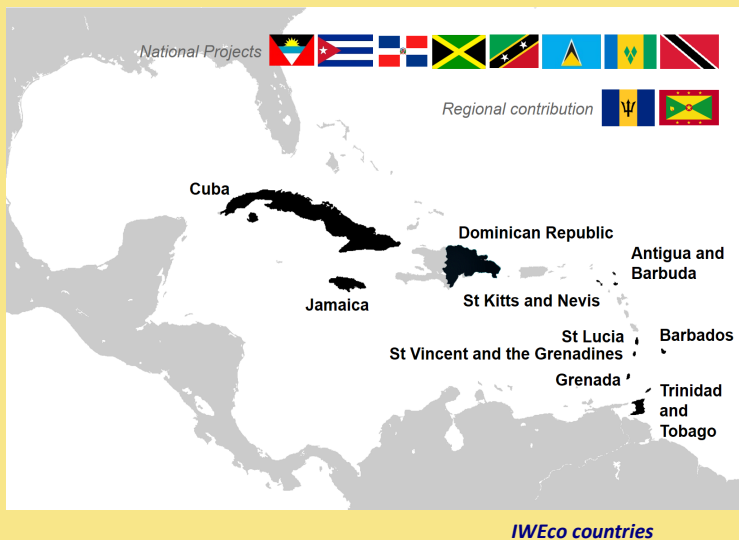
Also coming soon: IWEco Training Workshop: Building Capacity at the National Project Level in the areas of Environmental Monitoring, Community Engagement and Citizen Science, Barbados, 5–7 November 2019

IWEco thanks the Project Coordinators for St. Kitts & Nevis and Trinidad & Tobago as well as all Project Partners for their contributions to this issue.

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in caribbean small island developing states*

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