

The Blue Natural Capital Financing Facility (BNCFF) supports the development of sound, investable Blue Natural Capital (BNC) projects with clear ecosystem service benefits, multiple income streams and appropriate risk-return profiles.

This score card is part of the final assessment of the projects supported by BNCFF (2019-2021). Each score card provides an overview of a particular project, details its achievements, its success and challenges, before presenting the way forward.

Plastic marine pollution and mangrove recovery, Haiti

**BNCFF**

Blue Natural Capital Financing Facility

Project in a snapshot

Title	Control of plastic marine pollution and mangrove recovery in Gonaïves
Country	Haiti
Company	Bioenergia Foundation in collaboration with Bioénergie Haiti (BEH)
Vision	Support clean energy and waste-to-energy projects in developing countries.
Overall Project goals	The control of plastic marine pollution and mangrove recovery in the Gonaïves area within the Artibonite region, next to Haiti's largest mangrove area, La Grande Saline, which covers an estimated 8,160 hectares.
BNCFF supported activities	<p>The initiation and implementation of the first phase of a mangrove rehabilitation program in the Bay of Gonaïves, within the Republic of Haiti, through the following deliverables:</p> <ul style="list-style-type: none">• 60 vulnerable people trained and hired for activities• 3,000 trees planted and maintained• 1,500 students, 200 vulnerable citizens and 30 fishermen sensitized about marine pollution and mobilized for voluntary work• 2.6 km of coast cleaned• Around 10 tons of waste removed from the shore and 3 tons recycled• Final report describing the completed activities and explaining how the implementation of the bio-solar power plant will permit the establishment and operation of a long-term strategy to protect the Gonaïves Bay mangrove.
Main stakeholders	<ul style="list-style-type: none">• Bioenergia Foundation, Biothermica Technologies Inc. and BEH• Departmental Directorate of the Haitian Ministry of the Environment• Gonaïves City Hall• Terre des Jeunes Transational and Terre des Jeunes Gonaïves• Local population
BNC focus	Mangrove restoration as Corporate, Social Responsibility (CSR) for climate resilient infrastructure investments and carbon credits
Duration	2 months (2021)
Type of funding	Grant
Proof of concept	Biothermica Technologies Inc. has a proven track record on climate resilient infrastructure with an interest to ensure multiple benefits for nature and communities beyond their core business activity.
Links/synergies	<ul style="list-style-type: none">• Contributes to UN SDGs 1 (No Poverty), 7 (Affordable and Clean Energy), 8 (Decent Work and Economic Growth), 13 (Climate Action), 14 (Life Below Water) and 15 (Life on Land),• Contributes to climate adaptation and mitigation• Biodiversity conservation
BNCFF Blue Print	<u>Waste and energy infrastructure linked to mangrove restoration</u>

1. Project summary

The project is taking place in the Gonaives area in the Artibonite region, next to Haiti's largest mangrove forests, La Grande Saline, covering an estimated surface of 8,160 hectares, wherein:

- The municipal waste collection rate of 12% in Haiti is the lowest in the world, being chronically underfinanced;
- Municipal and industrial waste and sewage flow directly or indirectly into the ocean affecting

ecological productivity and local populations (fishing, salt marshes, tourism, health, etc.); and

- The mangrove is overexploited and polluted by the uncontrolled dumpsite Impasse Blanco, located along the coastline.

The project's goal is to control the marine plastic pollution and to protect and restore the environment through the mobilization of stakeholders within the local community.

2. Purpose of the engagement with BNCFF

The Bioenergia Foundation sought a financial contribution from BNCFF in order to initiate and implement the first phase of a mangrove rehabilitation programme in the bay of Gonaives, located in the Republic of Haiti. According to the contractual specifications, this program includes five (5) principle activities, namely:

1. The cleaning of 2.6 km of coastal shoreline along the bay of Gonaives;

2. Awareness training of stakeholders for the rehabilitation of the mangrove;
3. Awareness activities for 1,500 students from colleges and schools located near the coastline;
4. The reconstruction of the road leading to the uncontrolled dumpsite Impasse Blanco;
5. The establishment of a nursery to grow some 3,000 mangrove seedlings.



3. Main outputs and results achieved with BNCFF support



BIODIVERSITY AND NATURE BENEFITS

- 6.8 km of the coastline of the bay of Gonaives cleaned, exceeding the initial objective of 2.6 km.
- 58 tons of waste was collected on the shoreline, including 12 tons of metal recovered in the form of metal and aluminum cans for recycling by artisans.
- 3,000 white mangrove plants of the *Laguncularia racemosa* type were raised in nursery and planted, and a follow-up committee composed of two community organisers and 10 volunteer workers was created.
- The access to the mangrove site, located on the edge of an uncontrolled dumpsite, was improved by re-establishing 1.4 km of dirt road.



SOCIAL AND LIVELIHOOD

- Awareness raising campaigns showcasing the importance of the mangrove rehabilitation project and its objectives were conducted with the population of Gonaives.
- 67 people, including 55 women (with a focus on young people in difficult situations), enrolled in the project, and equipped with the necessary equipment for cleaning the mangrove.
- Some 50 families received a paycheck every Saturday for 3 weeks in the labor-intensive cleaning phase of the project.
- Good practices of planting, restoration and economic valorisation of the mangrove areas around the rural coastal communities of Gonaives were implemented through the training of 340 fishermen, workers and neighborhood leaders, including 120 students.
- 6,000 people were educated on mangrove preservation and restoration issues, including nearly 1,000 volunteers who contributed to the activities. Meetings with neighborhood leaders and door-to-door educational campaigns also had a significant impact on community awareness.



GOVERNANCE AND TRANSPARENCY

- Engagement with local authorities was done to obtain assistance in the different phases of the project and to ensure its eventual sustainability.
- Capacity building with the organisations involved was conducted to help link waste management, income generation and mangrove valorisation.
- Long-term strategy for the protection of the mangroves was developed, including carbon credit certification and sale.

4. Success and challenges

Thanks to the support of BNCFF, the implementation of the first phase of a mangrove rehabilitation programme in the bay of Gonaives is well underway.

This was made possible through a participatory and inclusive approach with a strong involvement of local decision-makers, grassroots actors and local

development organisations in the consultation and coastal protection process. This approach will help ensure that the project can be sustained over time. This is especially true as the Haitian government faces other urgent matters, in addition to a lack of resources and the capacity to address such a challenge.

5. Looking beyond BNCFF



BIODIVERSITY AND NATURE BENEFITS

- The uncontrolled dumpsite will be remediated over time through grassroots efforts and with the help of private and institutional partners possessing expertise in phytoremediation, as the local mangrove species are known to be efficient bio-accumulators of heavy metals and other pollutants.



SOCIAL AND LIVELIHOOD

- Capacity building efforts will be maintained over time to guarantee the continued commitment of the local population and governmental representatives to combat the problem of mangrove destruction and find solutions for financing its recovery.
- Stakeholders are now better equipped and mobilised to sustain and finance the project.



LEGAL AND FINANCIAL

- The mobilisation of funding will be explored for the rapid implementation of a controlled landfill site with biogas recovery, supported by Biothermica Technologies Inc. and Bioénergie Haiti.
- This first phase of the project has led to applications for new funding to study the effect of the uncontrolled dumpsite on public health, including soil sampling and proposed phytoremediation experimentation.



GOVERNANCE AND TRANSPARENCY

- A network of local multidisciplinary organisations, headed by an organisation for the protection of the mangrove, will be created.



BIODIVERSITY AND NATURE BENEFITS & LEGAL AND FINANCIAL

- Additional funding has been secured to close and remediate the uncontrolled dumpsite Impasse Blanco, once a modern and environmentally sustainable controlled landfill site has been installed in Gonaives as part of the global project by Biothermica Technologies Inc. and BEH.



Disclaimer: The BNCFF provides assistance to projects on their path to becoming sound, investable Blue Natural Capital (BNC) businesses with clear ecosystem service benefits, multiple income streams and appropriate risk-return profiles. Beyond the support provided, IUCN and the BNCFF donor(s) bear no responsibility for the development of these projects, their ultimate bankability or sustainability, their investors, donors, and funding arrangements, unless otherwise noted.

Photo courtesy by the Project Developer.

Since its launch in 2018, the BNCFF has become a global brand name in Ocean Impact Finance. After screening over a hundred proposals, it has supported a suite of blue Nature-based Solutions (NbS) pioneer projects with grant funding.

<https://bluenaturalcapital.org/supported-projects/>

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