



CARIBBEAN
IMPACT REPORT
2022

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AN ENGINE OF INNOVATION AND LEARNING



Alicia Miñana
Board Chair



Dr. Rob Brumbaugh
Executive Director,
TNC Caribbean

Dear Friends and Supporters, we are pleased to bring you the 2022 Impact Report for The Nature Conservancy in the Caribbean, where we work in 17 countries and territories stretching from The Bahamas to Barbados.

2022 was a remarkable year. The world emerged from a life-changing global pandemic and renewed global commitments to address the twin challenges of climate change and biodiversity loss. Our conservation work in the Caribbean had profound impact, both locally and globally. We broke ground on a new fishing gear storage facility to support fishers in Grenville Bay, Grenada, who are struggling with climate impacts associated with climate change—rising seas and accelerating erosion, jeopardizing the existing coastal infrastructure they depend on. In return, the fishers have volunteered for training to grow and transplant corals to the nearby coral reefs that break waves and reduce erosion and flood risk around the new facility. This exemplary display of a community-led nature-based solution is the kind of evidence that supported bold new commitments by nations, lending institutions, the private sector and multi-lateral funders at this year's Conference of Parties to the UN Convention on Climate Change (COP27) and Convention on Biological Diversity (COP15). TNC's Caribbean staff were directly engaged in both of these global meetings, serving on national delegations as well as TNC's global delegation. This ensured that the unique challenges faced by small island developing nations such as those in the Caribbean were in sharp focus, as well as the solutions being implemented to address these challenges.

With the help of US Virgin Islands Governor Albert Bryant Jr., we opened our state-of-the-art Coral Innovation Hub on St. Croix, which is an engine of innovation and learning where TNC and partners

are taking restoration to the scale that brings the most benefit for nature and people. The conservation work we are doing in the Virgin Islands, with funding from a variety of federal partners inspired a visit in November by the U.S. Secretary of the Interior, Deb Haaland, who described our work as a national model for public-private partnerships.

In September, we unlocked \$50 million in new conservation funding to support ocean management and conservation by co-guaranteeing along with the Inter-American Development Bank a \$150 million "Blue Bond" issued by the Government of Barbados. The Bond initiated a 5-year marine spatial planning process for the entire 186,000 km² of ocean under Barbados's national jurisdiction, and TNC will support this government-led process with science, community outreach and stakeholder engagement, marketing, and communications.

We hope you enjoy learning about these and other ways that we have had an impact in the Caribbean in 2022. We have been reminded over and over how central nature is to our well-being. From serving as a place of personal refuge for countless people during the pandemic, to providing a lifeline of food and resources needed by so many more who were buffeted by economic challenges, our conservation work supported us. With your continued support, we can continue to bring forward innovative solutions, develop ground-breaking science to inform decisions, and take conservation action at the scales that matter for both nature and people.

Saludos

The Nature Conservancy 
Caribbean Division

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The Nature Conservancy



Working in 17 countries and territories, The Nature Conservancy is committed to securing lasting conservation outcomes and a bright future for the Caribbean by protecting the ocean and coasts, safeguarding the habitats that sustain people and wildlife, building resilience against the impacts of climate change, and empowering communities to manage their natural resources in ways that allow people and nature to thrive together.



WHERE WE WORK





30% Ocean area to be protected under Barbados Blue Bond deal

121 Hectares of land restored with native plants in Jack & Isaacs Bay Preserve in the USVI

>500K Hectares of mangrove mapped (new Bahamas mangrove maps)

14 Hectares of mangroves restored in the Dominican Republic

>400% Increase in Facebook user engagements during COP15 and COP27

1871 Hectares of reef prioritized for improved management under the CoralCarib Project

8075 Native vetiver grass planted in Grenada and St Lucia to reduce erosion and soil loss

36 Articles published on the Barbados Blue Bond deal

8000 Mangrove propagules planted in Haiti

1380 People engaged in TNC-led capacity building activities

>5000 Web tool users accessing TNC's Caribbean Science products to advance conservation

98 Downloads of datasets from the people accessing TNC's Caribbean Science products

\$50
MILLION USD
Conservation funds generated by the Barbados Blue Bond deal

\$3
MILLION USD
Mobilized on behalf of the Haiti Biodiversity Fund from GEF through the World Bank

17 Scientific articles published by staff

8 TNC Caribbean staff attended COP15 and COP 27

>84K Facebook followers

All Fish Fresh

Red Snapper ...

Blue Marlin ...

Barracuda ...

Amber fish ...

Sword fish ...

Mahi Mahi or Dolphin ...

Tuna or Bill fish ...

Flying fish ...




A smiling man with short hair, wearing a blue and white patterned shirt, is holding a large, vibrant fish with yellow and blue stripes. The fish is held horizontally across his chest. In the background, a large, light-colored seashell is visible on a ledge. The image is overlaid with three colored rectangular boxes containing text: a green box at the top right, a blue box in the middle right, and an orange box at the bottom right.

MARINE
MANAGEMENT

GLOBAL
BIODIVERSITY
FRAMEWORK

30X30

SMALL NATION, BIG DEAL

 **Barbados is a Small Island Developing State (SIDS)**, but with a vast ocean space that is more than 430 times its land area, it might better be referred to as a large ocean state. Its relatively small land mass (430 km²) is dwarfed by its large Exclusive Economic Zone - the area in which Barbados has jurisdiction over natural resources - that surrounds it, which encompasses 186,898 square kilometers of ocean area.

Barbados' marine and coastal areas are home to some of the world's most vibrant coral reefs, rich marine biodiversity and beautiful beaches. This natural beauty is a key resource for supporting Barbados' economy, with sectors like marine-based tourism currently contributing over 40% of its GDP.

But Barbados' coastal and marine resources are under intense pressure from several factors, such as overfishing, coastal overdevelopment, sewage pollution, and siltation from sediment that flows off the land. These impacts are compounded by climate change, which has caused shoreline retreat and loss of property, beach erosion, and damage to reefs. Without adequate funding and capacity to enforce environmental laws and commitments, expand protected areas, and address climate impacts, Barbados' valuable marine and coastal environments would likely continue to degrade, with severe consequences on Barbados' economy and its coastal resilience.

Philip Als and his row boat featuring Barbados flag colors on Porter's Beach in Barbados. © Shane Gross



A family takes in the view at Cherry Tree Hill in Barbados. © Shane Gross



Further compounding Barbados' challenges is the fact that in 2018, Barbados' debt to GDP ratio stood at 178% — one of the highest in the world. The strain from this debt was exacerbated by the COVID-19 pandemic, as scarce financial resources were channeled from critical areas such as education and environment to boost the health sector.

To help ease the debt burden on Barbados and create funding for conservation, TNC, the Government of Barbados, and the Inter-American Development Bank (IDB) announced the completion of a \$150 million debt conversion in September 2022. The debt conversion created long-term sustainable financing for marine conservation and secured a commitment from the Barbados government to protect up to 30% of its ocean. This project will advance on delivering Barbados' commitment to the United Nations Global Biodiversity Framework, which aims to protect 30% of the world's land, ocean, and inland waters by 2030. With technical support from TNC, the 30% of the ocean area to be protected will be determined via a transparent, participatory, and collaborative marine spatial planning process.

The transaction, which is part of TNC's Blue Bonds for Conservation Program, enabled Barbados to repurchase relatively expensive pre-existing debt and replace it with a significantly lower cost of financing. This debt repurchase was funded by new financing arranged by Credit Suisse and CIBC FirstCaribbean and was co-guaranteed by IDB and TNC.

The conservation savings generated from the transaction will allow Barbados to channel an estimated US\$50 million into conservation funding over 15 years. Of the \$50 million, US\$23 million will go into an independent conservation fund, the Barbados Environmental Sustainability Fund (BESF) and USD 17 million towards a long-term endowment Trust for BESF, which is expected to generate an additional US\$10 million of returns over 15 years.

To help ease the debt burden on Barbados AND CREATE FUNDING FOR CONSERVATION, TNC, THE GOVERNMENT OF BARBADOS, AND THE INTER-AMERICAN DEVELOPMENT BANK (IDB) ANNOUNCED THE COMPLETION OF A \$150 MILLION DEBT CONVERSION IN SEPTEMBER 2022.



**MARINE-BASED TOURISM
CONTRIBUTION TO BARBADOS GDP**

>40%

AN AUDACIOUS DEAL FOR OCEAN CONSERVATION

8

 **After five years of negotiations, The Nature Conservancy, the government of Barbados, and the Inter-American Development Bank struck a deal that will leverage \$50 million in “Blue Bonds” funding to help protect Barbados’ marine ecosystems, support coastal communities and sustainably develop the island’s Blue Economy.**

TNC scientists are working with the Barbados government ON A FIVE-YEAR MARINE SPATIAL PLANNING DESIGN PROCESS THAT WILL ALLOW BARBADOS TO CONDUCT AN EQUITABLE AND HOLISTIC ASSESSMENT OF ITS MARINE RESOURCES.

A man offloads a mahi mahi fish from a fishing vessel into a tub before processing at the public fish market in Bridgetown, Barbados. © Shane Gross


Barbados' Blue Bonds for Ocean Conservation deal works by refinancing existing sovereign debt at a lower interest rate and using the savings to support critical ocean conservation commitments.

To determine how best to use these unlocked funds, TNC scientists are working with the Barbados government on a five-year marine spatial planning design process that will allow Barbados to conduct an equitable and holistic assessment of its marine resources. The process will assist Barbados in making informed decisions on how to accommodate the needs of the many businesses, nonprofits, communities, and other entities that rely on the ocean for economic, social, and other interests. It will also provide Barbados with the opportunity to optimize marine protected areas, sustainable fishing options, policy changes and other strategies to conserve up to 30% of its marine space. In an island where the ocean area is 430 times greater than the land mass, this is a big deal!

Financial support for the marine spatial planning phase and its subsequent execution will come from a new domestic conservation fund—the Barbados Environmental Sustainability Fund—established with TNC's support and the support of donors and proceeds from the Blue Bonds.



Deeper Dive
Barbados Commits
to Ambitious Ocean
Conservation

CLICK or SCAN QR CODE 

Lifeguard Corey Santelebury and his nephew **Nathan Lewis** on the lifeguard stand in the Folkestone Marine Reserve in Barbados.
© Shane Gross



CORAL
RESTORATION

CLIMATE
ADAPTATION





Coral Conservation Practitioner, **Samantha Orndorff**, conducts coral outplanting at a restoration site within the St. Croix East End Marine Park

OPENING THE CORAL INNOVATION HUB IN ST. CROIX



The launch of our Virgin Islands Coral Innovation Hub is a beacon of hope for reefs throughout the region. The Hub is where TNC staff and partners are spearheading coral restoration in nearly 50 acres of reef, benefiting up to a total area of 150 acres of marine habitat area in the St. Croix East End Marine Park—one of the largest restoration initiatives in the Caribbean.

The US Virgin Islands Governor Albert Bryan, Jr. (4th from R) and TNC CEO Jennifer Morris (3rd from R) cut the ribbon for the Grand Opening of TNC's Virgin Islands Coral Innovation Hub. Accompanying them are L to R - Dr. Ayana Flewellen, President of the Society of Black Archaeologists; Dr Rob Brumbaugh, Executive Director of TNC's Caribbean Division; Shenique Albury-Smith, Deputy Executive Director of TNC's Caribbean Division; Anais Rodriguez Vega, Secretary, Puerto Rico Department of Natural & Environmental Resources; Dr Celeste Jarvis, Virgin Islands Program Director; USVI Senator Franklin D. Johnson. © Marjo Aho





(top) Macallan Durkin, VI Aquaculture Associate demonstrates how to fragment corals for asexual reproduction. © Marjo Aho

(below) Coral polyyps of great star coral (*Montastraea cavernosa*) growing in the lab are open and ready to feed. © Marjo Aho

The Hub includes 24 raceways - or specialized tanks - where thousands of corals are grown, a wet lab for experimentation, a dry lab for microscope work, and a life support systems container.

The grand opening on May 13, 2022, featured TNC's CEO Jennifer Morris and Governor of the Virgin Islands Albert Bryan, Jr. The event attracted community members, legislators, environmental agencies, and business owners from the US Virgin Islands and Puerto Rico. Other speakers included 9th generation Virgin Islander Frandelle Gerard, Executive Director for Crucian Heritage and Nature Tourism and a TNC Caribbean Board Member. Dr. Ayana Flewellen, Society of Black Archaeologists President spoke of the important archaeological work being conducted around the Hub. Jennifer Koss, Director of National Oceanic and Atmospheric Administration's (NOAA) Coral Reef Conservation Program discussed the important work being enabled in the USVI by the

establishment of the Hub, and Angelita Alvino, St. Croix Superintendent, National Park Service, described the work TNC is doing to restore the reefs of the Buck Island Reef National Monument.

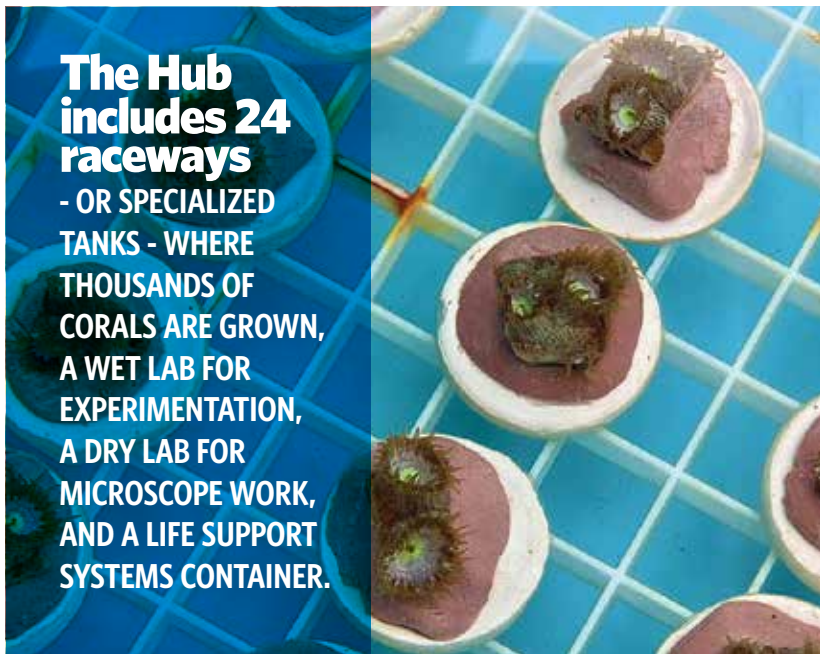
Funded by the National Fish and Wildlife Foundation (NFWF), National Oceanic and Atmospheric Administration (NOAA), and the National Park Service, Hub scientists aim to plant tens of thousands of corals to restore what was once a productive reef. Restoration is being conducted at the St. Croix East End Marine Park as well as Buck Island Reef National Monument, which was established by U.S. President John F. Kennedy in 1961 in recognition of the need to preserve scientific and educational interests in "one of the finest marine gardens in the Caribbean Sea."



Deeper Dive
TNC Dedicates Coral Innovation Hub on St. Croix
 CLICK or SCAN QR CODE



Macallan Durkin, Virgin Islands Aquaculture Associate and Dr. Woollam of the J.A. Woollam Company discuss how and why corals fluoresce. © Marjo Aho



The Hub includes 24 raceways - OR SPECIALIZED TANKS - WHERE THOUSANDS OF CORALS ARE GROWN, A WET LAB FOR EXPERIMENTATION, A DRY LAB FOR MICROSCOPE WORK, AND A LIFE SUPPORT SYSTEMS CONTAINER.



INNOVATIVE CORAL REPRODUCTION PROGRAM REAPING SUCCESS IN ST. CROIX



Our Virgin Islands Coral Innovation Hub, a new laboratory dedicated to advancing coral science in the Caribbean and globally, celebrated its grand opening in May 2022. Located at Estate Little Princess—a TNC preserve, and historic plantation situated northwest of Christiansted on the island of St. Croix—the Hub is a center for innovative approaches to coral conservation.


The Hub's efforts, funded by public grants and private donations, are focused on coral restoration at scale to increase both ecological and coastal resilience. Our primary projects include restoring approximately 50 acres of reef, benefiting up to a total area of 150 acres of marine habitat within the St. Croix East End Marine Park (STXEEMP) and another restoration project at Buck Island Reef National Monument (BIRNM), where we worked with National Park Service (NPS) staff to design coral planting strategies along the monument's south foreereef as well as the public snorkel trail.

In 2022, our team outplanted 5,455 corals grown at the Hub and in-water nurseries, including five species listed as threatened under the Endangered Species Act, to reef habitat at both the STXEEMP and BIRNM. Scientific divers from other TNC Caribbean offices and beyond assisted the team during carefully planned mass outplanting events, alongside our partners at the Virgin Islands Department of Planning and Natural Resources, National Oceanic and Atmospheric Administration, and the NPS. We settled an estimated 14,000 coral larvae through assisted sexual reproduction, contributing to increased genetic diversity and ecological resilience in local reef populations. Thousands more corals will be outplanted in 2023.

New coral science and technology developed at the Hub will be distributed through a global network of conservation practitioners, partner organizations, stakeholders, and educators to advance coral conservation worldwide.



Deeper Dive
A Revolution to Save the Caribbean's Coral Reefs throughout the Caribbean and beyond

CLICK or SCAN QR CODE 

Supporting Healthy Habitat
Healthy coral reefs in the Caribbean support countless species and half the region's economy. © Paul A. Selvaggio

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CORAL LARVAE SETTLED THROUGH ASSISTED SEXUAL REPRODUCTION

14,000

THREATENED CORALS GROWN AT THE HUB

5,455

A VISIT FROM THE SECRETARY OF THE DEPARTMENT OF INTERIOR



In November, the United States Secretary of the Department of Interior, Deb Haaland, visited The Nature Conservancy's (TNC) state-of-the-art Coral Innovation Hub in St Croix, U.S. Virgin Islands. After spending an hour touring and interacting with TNC staff, she left with a greater appreciation not only for the work of TNC, but for the importance of coral reefs.



Secretary of Interior Deb Haaland views growing coral colonies in the VI Coral Innovation Hub. © Marjo Aho

INVESTED BY THE NATIONAL PARK SERVICE IN A CORAL RESTORATION PARTNERSHIP WITH TNC

\$1.1million

The Secretary was moved as she learned from Jessica Ward, TNC's Virgin Islands Coral Program Director, that corals take years to grow and large corals can be hundreds of years old. The Secretary noted that communities will rally to protect a 500-year-old tree under threat, yet we lose 500-year-old corals every day.

"We do not think about a 500-year coral being destroyed because of ocean acidity or somebody breaking it off or dying because the ecosystem is changing in the ocean," Secretary Haaland remarked.

Dr. Celeste Jarvis, Director of the TNC Virgin Islands program, explained the relationship between coral reefs and the community. "Corals feed our families and protect our shorelines, yet they are dying. "We don't pay attention to it because they are underwater. What we are doing is trying to develop methods to bring them back to what they once were." Dr Jarvis said. By establishing a Coral Innovation Hub here at Estate Little Princess, we hope to turn a place with a bleak and hard history into a place of hope where scientists convene, community members learn and young conservationists are inspired."

The National Park Service has invested \$1.4 million in a coral restoration partnership with TNC, which has provided support for the first land-based nursery on St. Croix and helped scale up coral restoration efforts. This model of collaborative conservation is at the heart of the Biden-Harris administration's *America the Beautiful* initiative.

"Some people ask what keeps me up at night. Climate change keeps me up at night. I worry about it constantly. We all need to do what we can to protect our oceans," Secretary Haaland stated as she described TNC's coral reef work as "remarkable." "The Nature Conservancy and other organizations are using this facility to advance coral science to help reefs recover on a larger scale than ever before."



Secretary of the Interior Deb Haaland shares a light moment with Amanda Cooper, Virgin Islands Aquaculture Technician © Marjo Aho



CORAL CARIB

PIONEERING A NEW
APPROACH FOR CORAL
CONSERVATION AND
CLIMATE RESILIENCE

18

The Caribbean is home to 10% of the world's coral reefs, with 60% of reefs located in the central countries of Cuba, Dominican Republic, Haiti, and Jamaica.

Coral reefs face significant and growing conservation challenges, including warmer and more acidic oceans resulting from climate change and human impacts such as pollution, unsustainable fishing practices, and habitat destruction.



Example of Elkhorn (*Acropora palmata*) coral,
Jardines de la Reina, Cuba. © Ian Shive

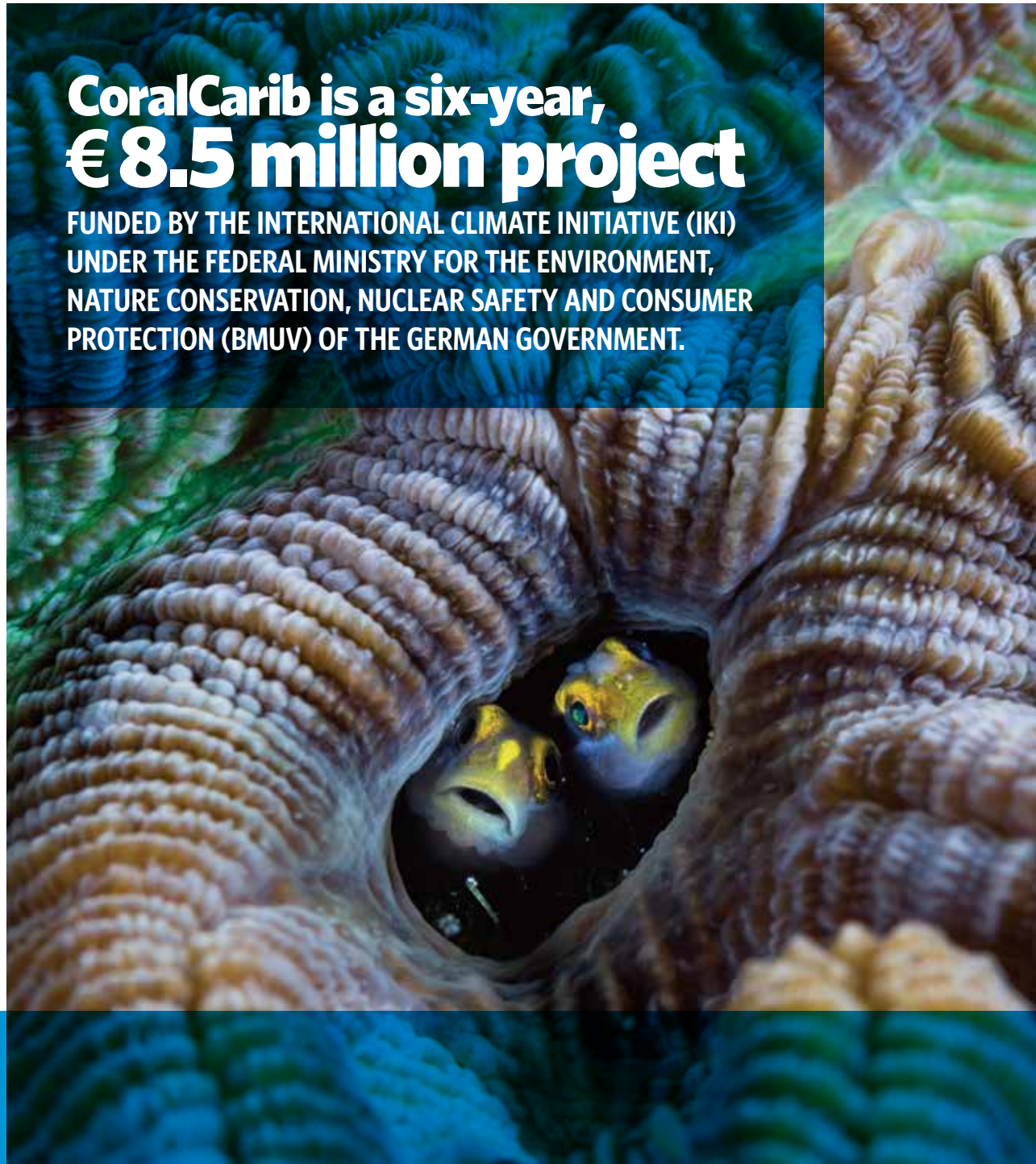
Live coral cover—a key measure of coral health—has declined by 60% in the Caribbean over the past few decades, threatening the region’s population and local economies that depend heavily on healthy reefs.

To combat reef loss and boost marine biodiversity and recovery, TNC announced the approval of the CoralCarib project in November 2022, entitled “CoralCarib: Pioneering a new strategic approach for conserving and restoring Caribbean coral reef ecosystems that targets Climate Resilient Refuges.” CoralCarib is a six-year, €8.5 million project funded by the International Climate Initiative (IKI) under the Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) of the German government. The project is being implemented in collaboration with the CoralCarib Consortium, which is led by TNC and includes Alligator Head Foundation (AHF) in Jamaica; Dominican Foundation of Marine Studies (FUNDEMAR) in the Dominican Republic; and Grupo Puntacana Foundation (GPCF) of Dominican Republic. This consortium is supported by three Local Implementing Partners: Haiti’s Initiative for Integrated Environment (IEDIH) and Haiti Ocean Project (HOP) in Haiti, and Acuario Nacional de Cuba (ANC) in Cuba.

CoralCarib’s goal is to directly improve 1,871 hectares of coral reef ecosystems in Cuba, Dominican Republic, Haiti and Jamaica through effective management of marine areas, abatement of threats to coral reefs, coral restoration using the most advanced technologies, promotion of sustainable livelihoods, development of science for decision-makers, and a range of activities designed to achieve region-wide impacts (e.g., sustainable finance mechanisms and knowledge sharing).

CoralCarib is a six-year, €8.5 million project

FUNDED BY THE INTERNATIONAL CLIMATE INITIATIVE (IKI)
UNDER THE FEDERAL MINISTRY FOR THE ENVIRONMENT,
NATURE CONSERVATION, NUCLEAR SAFETY AND CONSUMER
PROTECTION (BMUV) OF THE GERMAN GOVERNMENT.





Two fish swimming out of a coral reef in Aruba.
© Joost Boerman/TNC Photo Contest 2019.



Example of Elkhorn (*Acropora palmata*) coral, Jardines de la Reina, Cuba. © Ian Shive

Coral Refugia

The CoralCarib project was guided by a groundbreaking new approach to identify and prioritize “Coral Climate Refugia” where activities will take place. These refugia are sites where climate change impacts are predicted to be less severe. In 2021, a new modeling approach was developed using new data for the Caribbean region on historic thermal conditions, future thermal conditions, hurricane impacts, and coral larval connectivity. Future temperature increases were assessed using four different climate scenarios and 57 model runs. The model produced a map of coral reefs across the Caribbean, prioritizing refugia sites based on a ranking from high to low probability of survival. These maps were then used to support a stakeholder-driven process for conservation site selection in The Bahamas, Cuba, the Dominican Republic, Haiti and Jamaica. In each country, the top 25% of reefs ranking the highest

for climate change survival were identified and clustered together into potential project sites. Stakeholders provided information on current reef condition, vulnerability to climate change and local threats, and the potential for effective management and restoration success. Through direct interventions to improve coral reef health in sites with high potential to survive into the future, the project expects to generate long-term socio-economic benefits to coastal communities across the region.

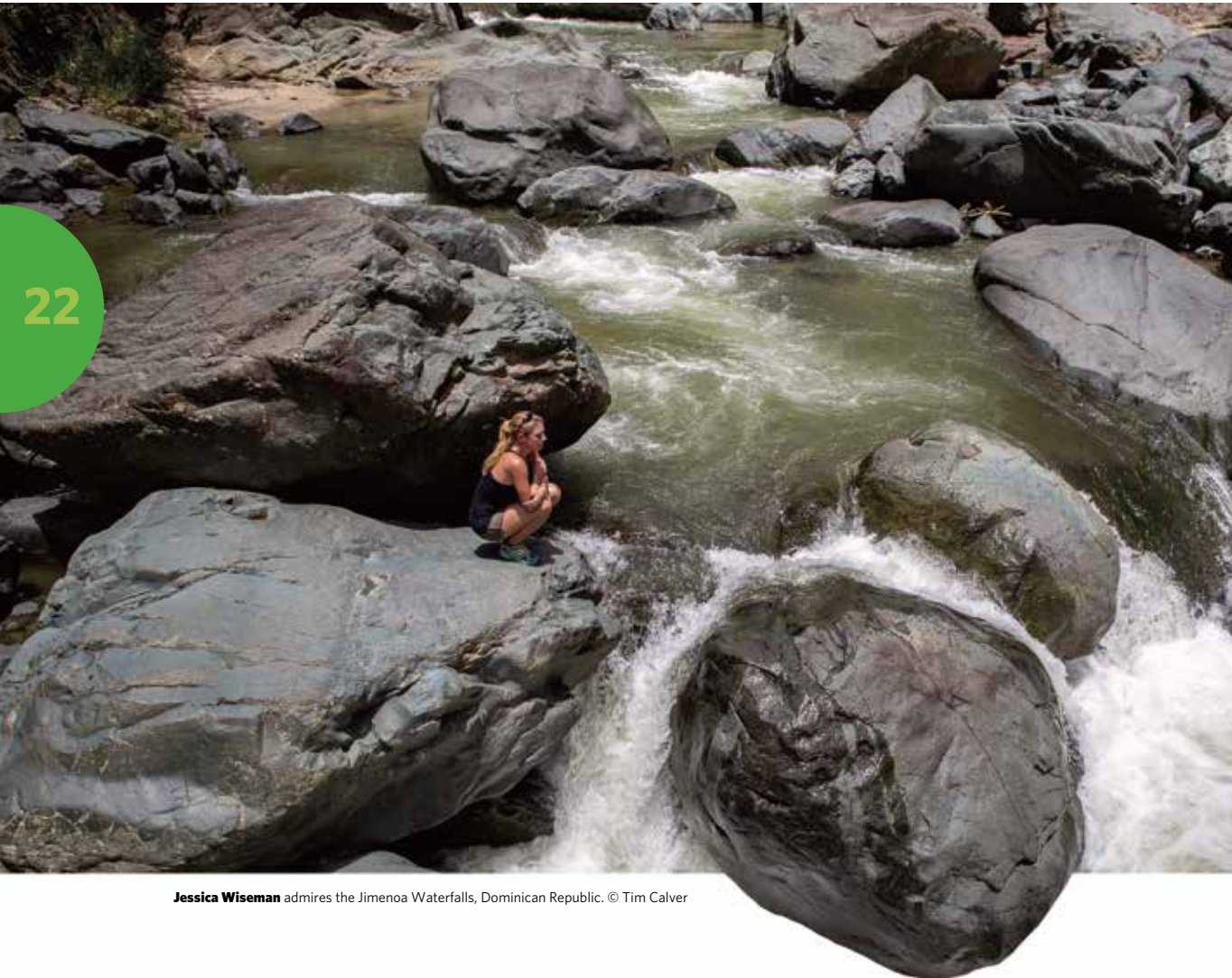


Deeper Dive
Coral reef map of
the Caribbean
or central Caribbean

CLICK or SCAN QR CODE

TOWARDS A RESILIENT FUTURE

JAMAICA, DOMINICAN REPUBLIC, GRENADA



The Resilient Islands initiative, launched in 2018 with €5 million in support from the German government, is focused on building coastal resilience in three Caribbean nations (Dominican Republic, Grenada, and Jamaica) with joint objectives for climate change adaptation, disaster risk reduction and biodiversity conservation action.

Jessica Wiseman admires the Jimenoa Waterfalls, Dominican Republic. © Tim Calver

Since 2013, The Nature Conservancy has partnered with the International Federation of the Red Cross and Red Crescent Societies to tackle ambitious goals for the climate change challenge in an innovative and multi-faceted way that will result in a systemic and transformational change.

In the past five years, Resilient Islands has supported the establishment of inclusive, fair and participatory governance mechanisms in target countries and coastal communities that have steered to community-led climate resilience plans, policy advocacy action plans, and projects that incorporate nature-based solutions to climate challenges. A strategy to mobilize additional financial resources is now in place, to carry out these solutions beyond the life of this project and benefit more than 60,000 people, allowing these Caribbean nations to build socioecological resilience in the most at-risk ecosystems and communities.

The project is showing the way for scaling up nature-based solutions for adaptation and disaster risk reduction through the conservation and restoration of key ecosystems. Resilient Islands is projected to safeguard 12,000 hectares of marine and coastal areas; reefs, mangroves, seagrass, coastal wetlands, and watersheds, which are our best way to protect coastal communities and livelihoods from climate-induced hazards such as floods, coastal erosion and storm surge. In addition, nature-based solutions are a key factor in reducing economic losses by avoiding damages to infrastructure and property and achieving a net gain of marine and coastal ecosystem while enhancing ecosystems services such as coastal protection, recreation, and food security. In the Dominican Republic, we engaged farmers at La Yeguada river watershed (Miches) to restore approximately 10 hectares of cattle ranchlands to reduce sediment pollution into the river and coastal waters. In Jamaica, we completed a feasibility study to understand the value of mangrove restoration to protect Old Harbor Bay communities from storm surge, and scoped work with communities to advance extensive mangrove plantings in 2023. In Grenada, we are building a climate-smart fisher facility for the Soubise communities. The facility should be in use by the end of 2023, benefitting dozens of fishers whose gears are at risk during storms, and improving the ability of fishing communities to adapt and become more resilient to these climate-related risks.

Resilient Islands is now at the final stage. This project has been a story of transformational partnerships to embrace multiple perspectives and solutions, a story of islanders and countries rising to the societal challenges brought by climate change in one of the most climate-vulnerable regions in the world. Resilient Islands has been held up as a model to be replicated, bringing awareness to the risks posed by climate change, and unlocking solutions, creativity, and support to walk the challenging path toward a resilient future.



Deeper Dive
Resilient Islands Joint Engagement Strategy



Resilient Islands Tools and Methodologies Evaluation



Caribbean Strong

CLICK or SCAN QR CODE



In Dominican Republic, we engaged farmers at La Yeguada river watershed (Miches) TO RESTORE APPROXIMATELY 10 HECTARES OF CATTLE RANCHLANDS TO REDUCE SEDIMENT POLLUTION INTO THE RIVER AND COASTAL WATERS.

EMPOWERING FISHERS



As part of our Resilient Islands initiative, TNC in partnership with the government of Grenada and local fishing communities has broken ground on a climate-smart fishers' locker facility in Soubise, St. Andrew, Grenada. The storage facility will be built to withstand the effects of climate occurrences such as hurricanes, storm surges and sea level rise and will be outfitted with rainwater and solar energy harvesting mechanisms.



A fisher proudly displays his catch in Soubise, St. Andrew, Grenada. © Hunter Nichols

The eco-friendly facility is designed to provide 20 storage lockers for fishers in the nearby communities of Grenville Bay, as well as a fishing gear cleaning area, a boat ramp, and a jetty for ease of access to load and offload catch, heavy gear and extra fuel.

This is just one initiative of a comprehensive "Living Edge" plan launched by TNC to address issues of severe reef degradation, coastal flooding, shoreline erosion, loss of infrastructure and reduced access to the sea for fishers and community members in the Grenville Bay area. TNC is working with the government, partners, farmers, fishers, and communities to implement synergistic 'green' interventions, such as mangrove and native plant revegetation, and 'grey' interventions such as hybrid reefs and coastal defense structures including groins and sea walls. Together, these interventions help to build climate resilience where it is needed most.

A seamoss farmer tends to his farm in Soubise, St. Andrew, Grenada © Hunter Nichols



The eco-friendly facility is designed to provide 20 storage lockers

FOR FISHERS IN THE NEARBY COMMUNITIES OF GRENVILLE BAY, AS WELL AS A FISHING GEAR CLEANING AREA, A BOAT RAMP, AND A JETTY FOR EASE OF ACCESS TO LOAD AND OFFLOAD CATCH, HEAVY GEAR AND EXTRA FUEL.

Fishers launch their boat in preparation for fishing in Grenville Bay, Grenada.
© Hunter Nichols



BLUE ECONOMY, BLUE JOBS



In the island nations of the Caribbean, the Blue Economy is necessary to ensure sustainable use of marine and coastal resources. To support those who rely on the ocean for their livelihoods, The Nature Conservancy in The Bahamas and the Access Accelerator Small Business Development Center (AASBDC) formed a four-year strategic partnership under the BahamaReefs Program that will allocate \$400,000 USD to fund up to 25 businesses in the Blue Economy.



The Blue Economy Accelerator Program will focus on providing knowledge, training, and technical support to Micro, Small and Medium Enterprises (MSME) seeking to reduce drivers of reef degradation.

The program was created with the goal of sustainably developing the Blue Economy and to generate new employment opportunities by supporting businesses whose models have a positive impact on the marine environment as well as reef dependent communities. The strategic focus on MSME development plays a vital role in developing viable “reef-positive” businesses that protect and restore critical natural resources for The Bahamas.


The Blue Economy Accelerator is one of the interventions within Impact Funding for BahamaReefs, which is a financial initiative led by TNC in collaboration with the Global Fund for Coral Reefs (GFCR) and other strategic partners. Over the course of the project, TNC will continue to support the development and implementation of investable opportunities in the Blue Economy to tackle climate change, support coral reef health and strengthen local communities.



Deeper Dive
MoU signed
between
TNC and SBDC



**Blue Economy
Accelerator Program**

CLICK or SCAN
QR CODE 

A young man, under direction from his father, in Nassau, Bahamas tosses conchs into an old shopping cart. © Shane Gross.

**The Blue Economy
Accelerator Program**
WILL FOCUS ON PROVIDING
KNOWLEDGE, TRAINING, AND
TECHNICAL SUPPORT TO MICRO,
SMALL AND MEDIUM ENTERPRISES
(MSME) SEEKING TO REDUCE
DRIVERS OF REEF DEGRADATION.





TNC SUPPORTS HAITI'S BIODIVERSITY SHOWCASE AT COP15



(top) Dr Rob Brumbaugh, TNC Caribbean Executive Director; Elizabeth Christina Loredan, Haiti's Forest Division Expert; and Astrel Joseph, Executive Director at Haiti's Ministry of Environment during the Haiti Side event at COP15. Seated behind Elizabeth are Amrikha Singh, Program Manager of the CARICOM Secretariat; and Dr. Patrick Chesney, CARICOM Consultant supporting Caribbean countries participation at the COP15
© Ralph Same Cadet

(left) Prenor Coudo, Technical Director of Haiti's National Protected Areas Agency being interviewed by two French professors and a few university students at Haiti's exhibition booth at the COP15
© Ralph Same Cadet



At the UN Biodiversity Conference (COP15) in Montreal, Canada, Haitian officials and TNC staff presented at a standing-room only event entitled “Caribbean Marine Biodiversity: Celebrating Haiti’s Success”. During the event, presenters provided insights into Haiti’s efforts to preserve its rich biodiversity. “We had the opportunity to discuss Caribbean marine biodiversity conservation progress and shortcomings under the Caribbean Challenge Initiative (CCI) and celebrate Haiti’s successes,” explained Maxene Atis TNC Haiti Program Manager and member of Haiti’s National Delegation to COP15. Dr. Rob Brumbaugh, TNC Caribbean Executive Director, also spoke at the side event and noted the value of Caribbean nations working together to advance conservation at a regional scale.

The event highlighted Haiti's significant progress toward sustainability with the declaration of new marine protected areas and achieving the 20x20 Goal. Haiti was also credited with establishing a National Conservation Trust Fund to provide long-term financing for biodiversity conservation in the country. "TNC's support to Haiti's Government at the CBD COP15 was instrumental in shaping their national priorities and position as it relates to the real issues involved in the development and adoption of the Global Biodiversity Framework," stated Atis. The TNC-Haiti collaboration provided a unique opportunity to work along with other Caribbean governments through the GRULAC and Caribbean SIDS working groups to support regionwide collective vision and consensus around the key strategies and actions to be implemented during the next decade. In addition to the side event, TNC collaborated with the Haiti Ministry of the Environment to produce an exhibition booth in the Nature Pavilion at COP15.

Other TNC Caribbean staff participated in COP15 including Dr. Joth Singh, Institutional Partnerships Director, and Olando Harvey, TNC Eastern Caribbean Marine and Coastal Project Manager, who served on Grenada's National Delegation to COP15.

Caribbean women represent at COP27

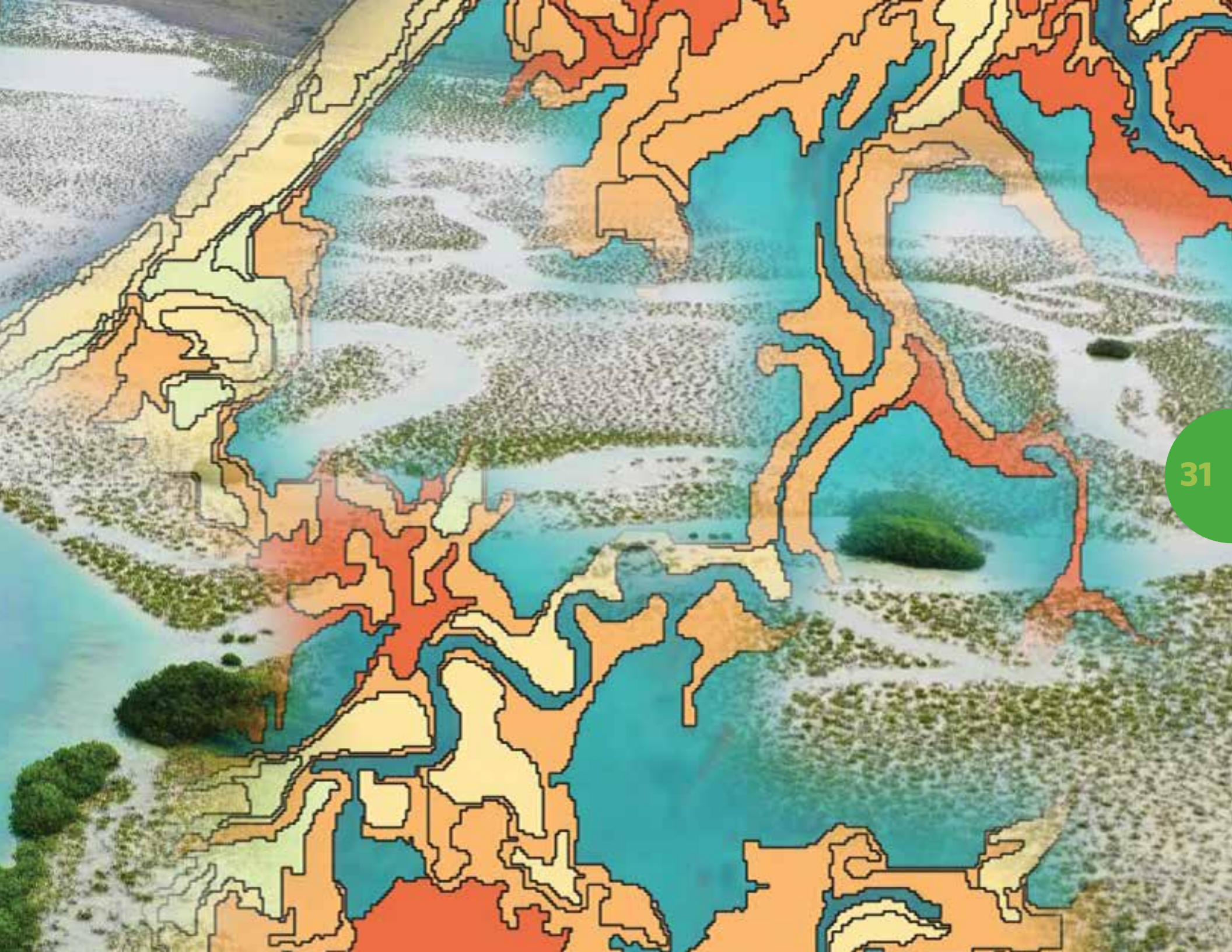
This past November in Egypt, an all-female delegation from The Nature Conservancy served on three National Delegations from the Caribbean at the Conference of Parties to the UN Convention on Climate Change (COP27). The all-female team consisted of Shenique Albury-Smith, Deputy Executive Director of TNC's Caribbean Division; Marcia Musgrove, TNC's Northern Caribbean Director, Dr. Sherry Constantine, TNC's Eastern Caribbean Program Director, and Nealla Fredericks, TNC's Eastern Caribbean Climate Change Project Manager. Both Shenique and Marcia were members of The Bahamas Government's National Delegation and participated in several panels at COP. Sherry was a member of Barbados' National Delegation, while Nealla was part of Grenada's Delegation. Both Sherry and Nealla presented in different panels during COP27. The TNC Caribbean ladies also met Barbados' Prime Minister, Mia Mottley, and TNC's CEO Jen Morris.



L to R: Shenique Albury-Smith, Deputy Executive Director of TNC's Caribbean Division; Marcia Musgrove, TNC's Northern Caribbean Director; Dr. Sherry Constantine, TNC's Eastern Caribbean Program Director, and Nealla Fredericks, TNC's Eastern Caribbean Climate Change Project Manager

TECH MEETS CONSERVATION





VESSEL MONITORING SYSTEM PILOT



Illegal, unreported, and unregulated (IUU) fishing is a serious problem in The Bahamas and depletes its marine resources. The Bahamas government passed the 2020 Fisheries Bill, which supports exploration of Vessel Monitoring Systems (VMS) as a tool to strengthen fisheries management and vessel safety at sea.

A fisherwoman stands with her boat on East End, Grand Bahama. © Shane Gross



Fisherman in West End,
Grand Bahama use fish
to settle a small debt.
© Shane Gross.



The Nature Conservancy together with The Bahamas Department of Marine Resources (DMR) DESIGNED AND IMPLEMENTED A TWO-PHASE VMS PILOT FROM 2020-2023 TO TEST VARIOUS VMS.



The Nature Conservancy together with The Bahamas Department of Marine Resources (DMR) designed and implemented a two-phase VMS pilot from 2020-2023 to test various VMS. VMS are satellite-based tracking systems that record on a regular basis vessels location, velocity, route, and other key information like weather conditions. Benefits include prevention of vessel thefts, faster response times for search and rescue operations responding to emergencies at sea, better understanding of areas where fishing activities are primarily taking place, helping to distinguish local from foreign vessels, identification of key areas that require increased monitoring and management, and encouraging compliance.



A tiny fishing boat sits
off Potters Cay, New
Providence, Bahamas.
© Shane Gross.

BLUE CARBON EXPLORER: MAPPING THE MANGROVES

Mangroves and seagrasses provide a wealth of ecosystem benefits, including coastal protection from flooding, supporting sustainable livelihoods through fisheries and eco-tourism, and carbon storage.

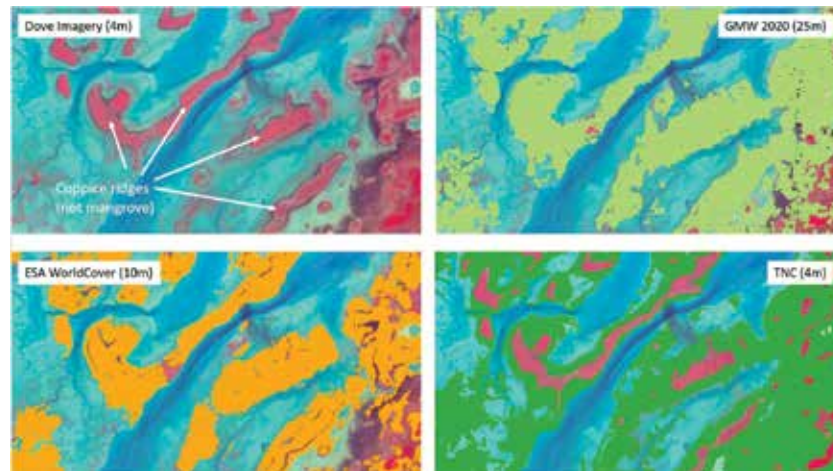
These habitats sequester carbon at incredible rates—on average, mangroves store up to ten times as much carbon in comparison with upland forests, and seagrasses twice as much for the same area of forest.

Historically, we have relied on global datasets to understand the scale and extent of mangroves across the Caribbean. These maps are based on coarse satellite data and miss much of the narrow, fringing, and dwarf mangroves that are prevalent in the region. The Nature Conservancy is utilizing Planet Labs' satellite data, combined with extensive field data and input from local experts, to map mangroves in the Caribbean at 4-Meter resolution on a country-by-country basis, starting with The Bahamas.

These maps show us where mangroves are, but we also need to know what condition they are in. To that end, the Caribbean Science Team has developed the Blue Carbon Explorer, an online tool that allows users to assess changes in health and biomass of mangroves over time. The tool can guide decision-making around conservation by identifying mangroves that are degraded and in need of restoration—as well as mangroves that are healthy and in need of protection—as opportunities for blue carbon projects.


The Blue Carbon Explorer and these newly completed mangrove maps are already being put to work by The Nature Conservancy and conservation partners in The Bahamas. Vast areas of mangroves on Grand Bahama and Abaco were devastated during Hurricane Dorian in 2019. Based on guidance from partners on the ground, The Nature Conservancy is using the tool to prioritize the restoration of mangroves that are not likely to recover naturally. Meanwhile, partners are testing mangrove restoration methods that can be scaled up, identifying the best areas for direct outplanting, as well

as dispersal of mangroves' propagules that float and can be distributed on tidal currents drones in hard-to-reach areas. With technology guiding the way, TNC and partners aim to restore mangroves as quickly and efficiently as possible so that they continue to provide the many ecological and economic benefits that we've come to appreciate from them.

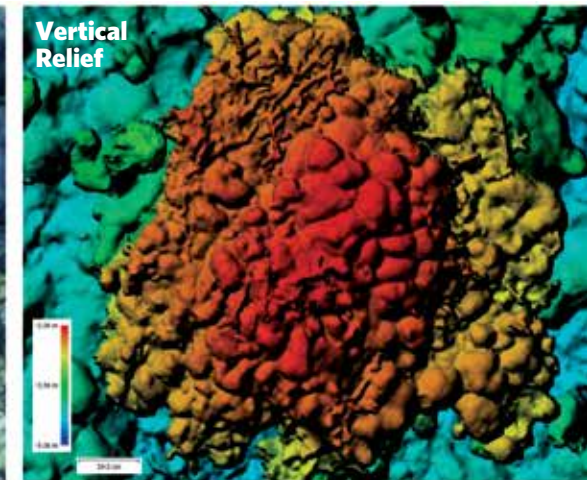
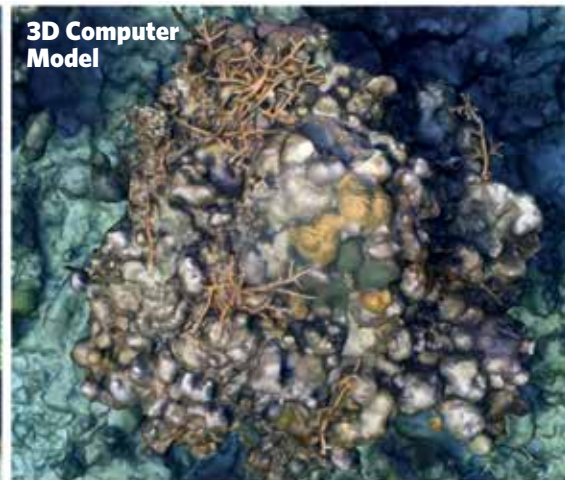
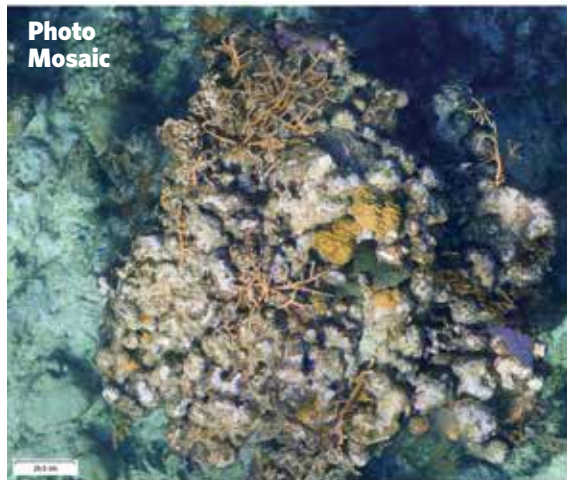


Blue Carbon Explorer
Mangrove segmentation Andros
Mangrove maps comparison

CREATING 3D MODELS OF REEFS

 **TNC scientists, alongside collaborators at the Perry Institute for Marine Science,** piloted the latest techniques in coral reef monitoring using “structure-from-motion” (SfM), a process which uses 2D photos from multiple cameras mounted beneath a movable floating platform to map undersea terrain and create 3D images for research and monitoring.

The team set up several long-term monitoring sites to collect thousands of underwater photos and drone imagery in New Providence, The Bahamas, to create 3D models of seven distinct reefs. The photographs were stitched together using computer software and processed to create 3D images, allowing scientists to visualize reefs in a whole new way and track changes in coral colonies and structural complexity of the reefs. Structural complexity is critical to maintaining high biodiversity and overall fish productivity. Using the latest advancements in science is essential for monitoring the health of coral reef systems accurately and for tracking outcomes of management and conservation actions. Staff and local partners underwent training in field data collection methods to increase capacity for coral reef monitoring, which will be used in future coral restoration projects in The Bahamas.



WHERE TO FROM HERE?

Our conservation work in 2022 was inspiring, impactful, and important.
And we know there is much more to do to help nature and people thrive in the Caribbean.

Looking forward, we will continue to focus our efforts so that our conservation work has local, regional, and global benefits, and all of this will rest on three main pillars. First, to help nations across the Caribbean deliver on the new Global Biodiversity Framework targets that were adopted at COP15 in December, we are organizing partners and collaborators to create a new regional 'blueprint' for biodiversity conservation. Using our new high-resolution maps and new ecosystem services models, we can prioritize conservation actions that benefit both nature and people and help reach the ambitious new global conservation targets that nations are striving to achieve together. Second, to amplify climate adaptation solutions developed through our Resilient Islands initiative we are working to secure funding from the Green Climate Fund, which is capable of taking nature-based solutions to the scales that matter both for nature and people. TNC recently became an Accredited Entity to the Green Climate Fund, allowing us to develop proposals in consultation with national governments and access funds at unprecedented levels for climate adaptation projects. Third, our coral science and conservation capability has matured to a point where we can scale coral conservation and restoration to a regional scale. We have developed a Coral Leverage Fund to support improved management, conservation, and restoration of reefs in 8 countries and territories, targeting reefs that shown to be resilient in the face of climate challenges, and which provide both climate and biodiversity benefits. The Coral Leverage Fund combines public and private funding and for every private dollar we raise, we leverage 3 (or more) dollars in public funds.

All of this builds on our track record of success and is only possible because of our many supporters, partners, and contributors like you.



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The Nature
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Protecting nature

THANK YOU
FOR YOUR
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OUR WORK!

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Fishers like Kellon Marrast are trained in coral gardening procedures and are helping to restore coral reefs in Grenville Bay, Grenada. © Hunter Nichols

OUR MISSION

TO CONSERVE
THE LANDS AND
WATERS ON WHICH
ALL LIFE DEPENDS.

Sea turtle at Tamarindo Beach,
Culebra, Puerto Rico taken with
a GoPro while freediving.
© Lymari Aguirre
/TNC Photo Contest 2022

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Caribbean Division
800 S. Douglas Road, Suite 220
Coral Gables, FL 33134 USA



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