



Haiti

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From meandering peaks to unexplored reefs this Caribbean hidden gem needs protecting

Home to four mountain ranges, an array of waterfalls and river valleys, and over 600 miles of coral reefs skirting the coastlines, Haiti is considered to be one of the most biologically significant countries in the West Indies.

Its name originates from a word meaning “land of high mountains” that the indigenous Taínos used to describe Hispaniola, the island shared today by Haiti and the Dominican Republic. When colonized by the French, Haiti was often called the “Pearl of the Antilles.” This was a reference not only to the wealth generated through coffee and sugar production but also to the natural riches found throughout the country’s land and waters—riches that have since suffered devastating decline. Haiti was once lush and green, but now only a small percentage of its mangrove and terrestrial forests remain. Once plentiful marine populations have declined to the point that fishers often return from a day on the water with a meager catch or nothing at all.

Unsustainable tree harvesting, overfishing and the impacts of climate change have put the country in an alarmingly vulnerable state and continue to threaten ecosystems, livelihoods and communities. However, while Haiti is widely known today for its environmental degradation and extreme poverty, The Nature Conservancy (TNC) sees a country of hope and opportunity. More than 11 million people live in Haiti, made up of strong communities that are deeply committed to the land and sea that sustain them. TNC has been working in the country for over a decade, building on this strength to help Haitians restore, protect and manage their natural resources for a better life today and a brighter future ahead.



Achieving Historic Marine Conservation Goals

To help the struggling economies and communities of Haiti, it is imperative to dramatically improve ocean health and productivity. Working closely with the Haitian government and local fishing communities, **TNC was instrumental in establishing the country's first two marine protected areas—Port Salut/Aquin National Park along the southern coast and Three Bays National Park along the northern coast.** These declarations represented a key step in promoting long-term marine ecosystem recovery and fishery sustainability.

In 2016, following several years of guidance from TNC and partners, Haiti became the eleventh country to join the Caribbean Challenge Initiative (CCI). This historic collaboration brings together governments throughout the region in a voluntary commitment to protect and manage at least 20 percent of their nearshore environment. To support the country in reaching its CCI goal, TNC provided scientific data and expertise that helped the Haitian government identify priority areas for protection and design its National System of Marine and Coastal Protected Areas. By 2017, Haiti had established nearly 260,000 acres of protected marine and coastal areas—reaching 23 percent of its nearshore environment, or just over its CCI goal.



Upon joining the CCI, governments commit not only to the 20 percent goal but also to effectively managing their protected areas today and into the future. To support these efforts, TNC and partners launched the Caribbean Biodiversity Fund, which helps countries and territories establish ongoing funding for long-term management of marine and coastal resources. Through significant support from TNC, the Haiti Biodiversity Fund was established in 2018, with a \$13 million endowment in place. **A first-of-its-kind financing tool for the country, the Haiti Biodiversity Fund works with the Caribbean Biodiversity Fund to generate and maximize perpetual, sustainable revenue streams that directly support protected area management and other vital conservation efforts.**

Using Science to Protect Nature and People

TNC's work in Haiti has advanced through a commitment to innovative, science-based solutions. Following the declaration of Three Bays National Park, TNC scientists provided extensive data and expertise toward developing a management plan for this important protected area. Encompassing 190,000 acres, including overfished waters in the bays of Limonade, Caracol, and Fort Liberté, Three Bays is home to the country's second-largest mangrove forest, one of its longest barrier reefs and other habitats on which surrounding communities depend. The long-term approach TNC helped to create and implement allows for sustainable use of resources while fostering ecosystem health and community wellbeing. It also includes efforts to protect endangered species found within the park and to train hundreds of community members in supplemental livelihoods that can reduce pressures on natural resources, like beekeeping or kayak tour guiding.

In 2018, TNC began conducting comprehensive data-gathering missions in order to guide optimal use and management of natural resources and reduce threats to both nature and people in Haiti. Using aerial drones and drop cameras, scientists created maps of underwater habitats across nearly 300,000 acres of marine and coastal area, including four key protected areas that cover a vast portion of southern Haiti. Prior to this, little information existed on the status of the ecosystems and biodiversity within these newly declared national parks.



This initiative revealed several areas of remarkably healthy coral reefs sustaining a variety of threatened species, such as sea turtles, eagle rays and manatees—an anomaly in Haiti today, with much of the marine environment degraded. Using these data-driven maps to guide marine management decisions will allow these healthy ecosystems to expand into other areas, improving ocean productivity and resiliency not only in the national parks but in other parts of the country as well.

Because Haiti's national parks contain resources that are essential to those living in nearby communities, it is important to understand the threats to biodiversity, and therefore to people, in these protected areas. TNC scientists used satellite, drone and underwater data to assess threats throughout four protected areas in southern Haiti that benefit nearly 700,000 people. They ranked threats according to severity of impacts and the number and variety of species at risk. The scale and impacts of overfishing were examined particularly closely in the Baradères-Cayemites Marine Protected Area, which contains two bays that are sources of food for tens of thousands of Haitians. **The assessments revealed that reefs in this area have some of the lowest total fish biomass recorded in the Caribbean over the past decade.** In fact, reef fish populations had shifted toward small-bodied species that reach sexual maturity at an early age, likely as a consequence of intense overfishing over many years.



Management recommendations were made to address the greatest threats, including overfishing, deforestation, land-based pollution, invasive species and agricultural impacts like overgrazing and sediment runoff. **The recommendations promote sustainable use of resources in ways that help ensure the long-term well-being of people and ecosystems**—like creating fishing zones that allow juvenile fish to reach maturity and breed, burning invasive tree species for fuel instead of mangroves, and rotating grazing sites for livestock. Workshops were then held with stakeholders to share the assessment results, explain the recommendations, collect input and discuss ways that communities can support protected area management and reduce threats to biodiversity going forward.

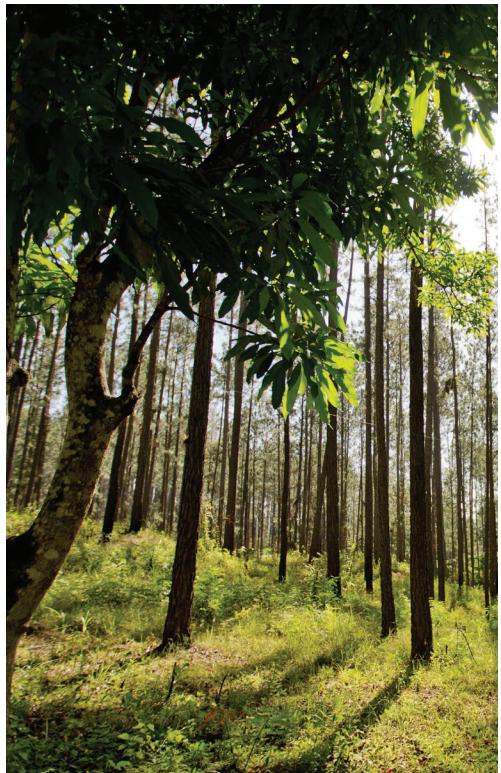
Working Within Communities and Across Borders

Over the past decade, TNC has built strong relationships with Haiti's fisher communities. While working on the establishment of marine protected areas toward the CCI goal, TNC conservation practitioners connected with fishers across 38 communities and learned what, where and how they fished. During this process, it became apparent that most of Haiti's fishing legislature did not properly address the issues currently threatening fisheries and the challenges faced by fishers. TNC provided expertise to help the government draft a new Fisheries Action Plan for northern Haiti, which updated antiquated fishing regulations with practical solutions for sustainability and is now fully endorsed by the National Fisheries Division and local government officials. **The updated regulations included a ban on the use of seine nets, which are harmful to marine habitat, and on the capture of sea turtles, sharks, rays and marine mammals.**

TNC's work in Haiti not only emphasizes collaboration with communities but also across borders. Working closely with the governments of Haiti and the Dominican Republic over several years, TNC helped bring about a groundbreaking agreement between these two countries that jointly depend on the limited resources in their shared marine environment.

With a longstanding history of competition for resources, representatives from each country convened, through opportunities created by TNC and partners, to develop a collaborative strategy for addressing overfishing and biodiversity loss.

The result was a first-of-its-kind achievement call the Binational Action Plan for Sustainable Fisheries Management. This mutually beneficial agreement between the two countries allows for the cross-border collaboration necessary to improve fishing practices and implement effective management in two key areas TNC has helped protect—Three Bays National Park and the Dominican Republic's Monte Cristi National Park. **Restoring marine health and productivity in these areas will benefit ecosystems throughout the waters of northern Hispaniola, for improved livelihoods and economic viability on both sides of the border.**



Protecting Freshwater at Its Source

To help safeguard the health and wellbeing of Haitian communities, TNC strives to conserve existing green infrastructure, or native and endemic trees, that naturally protects and filters freshwater. To date, **TNC has helped communities plant hundreds of thousands of seedlings to restore terrestrial forests, including over 500,000 trees in Tilori, 200,000 in Saint-Michel-de-l'Atalaye and 12,000 in Île-à-Vache.** Many of these are fruit trees, which provide a source of food as well as natural protection for freshwater sources.

Going forward, TNC aims to implement a freshwater conservation strategy with sustainable financing support to ensure water security for communities through the ongoing protection and restoration of water-producing ecosystems. As part of the recently created Haitian Biodiversity Fund, a sustainable water fund for Haiti would allow freshwater users—including communities, small businesses and broader industries—to invest in the conservation of water sources. These investments then generate sustainable, ongoing funding for the protection and restoration of lands and forests surrounding these sources. For example, a beverage company that depends on freshwater can invest funds that will be used to restore and support the natural systems that produce and filter water. **Both industry and communities benefit as revenue is channeled into reforestation efforts, management of national parks and other initiatives.**

Building a Sustainable Future

Haiti's moniker of long ago, the "Pearl of the Antilles," is a poignant reminder of the true treasure the country has lost—natural riches that it struggles against severe challenges to revive. TNC's science-based, collaborative approach is helping the country face these challenges and empowering Haitian communities to invest in their natural resources for improved food security, livelihoods, economic stability and quality of life. **By helping the country reclaim the beauty and abundance of its once magnificent natural wonders, Haiti's next generations can inherit a more promising, resilient future than the country has known for some time.**



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