



Ministerie van Buitenlandse Zaken

Dominican Republic Climate-Related Business Opportunities 2022



Summary

The Dominican Republic (DR) is a Spanish-speaking country in the Caribbean Region that shares the island of the Hispaniola with Haiti. It is a middle income Small Island Developing State (SIDS) with a population of about 10.5 million people and one of the region's largest economies, with a gross domestic product (GDP) in 2019 of 88.94 ([World Bank data portal](#)) and projected GDP growth of 9.5% in 2021 ([International Monetary Fund](#)). In effect, according to the [World Bank](#), the Dominican economy has been growing steadily over the past 25 years due to tourism, remittances, foreign direct investment, mining revenues, free-trade zones, and telecommunications. This has led to an overall reduction in poverty rates, to a level of 23.4% by 2020, albeit still high in rural areas.

There are business opportunities that arise from climate change. The low-carbon transition, especially after the [Conference of Parties](#) held in November 2021 (COP26) where countries have committed to ending all investment in new coal power generation and coal power will be phased down by the 2040s (in poorer nations), creates opportunities for efficiency, innovation and growth. The transportation sector is experiencing progress in zero-emission vehicles and mobility services. Moreover, there is increased demand in sustainable packaged goods from sustainable product lines. In addition, as countries transition to more resilient infrastructure, the water, tourism, service, food, and manufacturing sectors will all require changes. Therefore, sustainable finance is also expanding to support the transition to a green economy.

This report will summarize some business opportunities stemming from the climate impacts and adaptation and mitigation commitments for the Dominican Republic. It will focus on priority sectors where businesses have the potential to invest in the country, thereby supporting its climate-resilient transition.

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List of acronyms

DECC	Desarrollo Económico Compatible con el Cambio Climático
DR	Dominican Republic
EbA	Ecosystem-based Adaptation
GhG	Greenhouse Gases
ICT	Information and Communication Technologies
IPPU	Industrial Processes and Product Use
IUCN	International Union for Conservation of Nature
LEED	Leadership in Energy and Environmental Design
LULUCF	Land Use, Land use Change, and Forestry
MW	Megawatts
NDC	Nationally Determined Contribution
NAMA	Nationally Appropriate Mitigation Action
UNFCCC	United Nations Framework Convention on Climate Change

Climate Change in the Dominican Republic

The Dominican Republic (DR) is extremely vulnerable to the impacts of climate change. Globally, from 2000 – 2019, the DR ranks among the 50 most vulnerable countries in the world ([Global Climate Risk Index](#)). Minimum temperatures are projected to rise from 1°C - 3°C by 2050 and 2°C - 6°C by 2070 ([DR's Third National Communication](#)). This report also revealed that most climate models indicate from 10% - 50% less precipitation that could lead to intense periods of drought. However, when coupled with climate models suggesting more frequent and intense storms/hurricanes, and sea level rise, many areas in the country will experience flooding.

Although these two climate effects, drought and flooding, seem to counter each other, rapid unregulated urban expansion from people moving from rural to urban areas and immigration (principally [from Haiti and now recently, Venezuela](#)), and the accumulation of people living in coastal areas and floodplains and steeply-sloped regions prone to landslides, compound the rain-driven impacts. Importantly, the capital of the DR, Santo Domingo, and one of the provinces that regularly experience high tourism for golf and other sports, La Romana, are expected to regularly flood with strong rain events.

Paris Agreement

The [Paris Agreement](#) is a lawfully enforceable international climate change pact. Accepted by 196 Parties at COP 21 in Paris on December 12, 2015 and launched on November 4, 2016. Its objective is to keep global warming considerably below 2 degrees Celsius, preferably 1.5 degrees Celsius, relative to pre-industrial levels.

The [Paris Agreement \(Article 4, paragraph 2\)](#) requires each country to submit their NDCs every five years representing each country's commitment to reduce national emissions and adapt to the impacts of

Adaptation is the act of responding to the existing and future effects of climate change.

Mitigation refers to lessening the severity of the effects of climate change by reducing and stabilizing the production of greenhouse gases (GhG).

In their 2020 [Nationally Determined Contributions](#) (NDC), the DR pledged to reduce their greenhouse gas emissions by 27% of a projected business as usual scenario of 2030 given the country's economic development plan compatible with climate change ([Plan DECC](#)), the highest ambition pledged by the country. This commitment is suitable for business because it allows the country to grow to a point where it can emit up to 51,000 Gt CO₂eq by 2030, while laying out a clear direction towards obtaining those goals. This brief will lean on the DR's NDC to suggest business opportunities for the country given the climate change.

While the DR's NDC has a strong emphasis on mitigation activities to meet GhG emission goals, it also includes climate adaptation actions. These are: sustainable soil management, efficient irrigation systems, effective water treatment, the promotion of nature-based solutions, and the water-energy-land interaction with renewable energy sources to ultimately improve the resilience of communities in the Dominican Republic to the adverse effects of climate change.

Mitigation Priorities

In the DR's NDC, the country identified several mitigation options including 27 in the energy sector and 4 in the Industrial Processes and Product Use (IPPU) sector. These priorities can become from small-scale to large-scale projects depending on its cost and funding, time to develop, and level of engagement with the public sector. It is important to recognize that electricity generation in the DR mainly comes from fossil fuels and biofuels, with thermoelectric generation capacity at 2,469.23 MW (82.4% of the installed total of 3000 MW) in 2013.

For the DR, the cement sector is very important, albeit a high emitter, therefore there are opportunities in transitioning to cement plants that mainly use alternative fuels and renewable energy. The biggest challenge of the land use, land use change and forestry (LULUCF) sector is the increase of greenhouse gas emissions from land use conversion to agriculture, such as pasture for cattle, swine, feedstock, and crops. Therefore, the DR has developed several Nationally Appropriate Mitigation Actions (NAMAs) that specify how to reduce emissions in certain agricultural activities, such as coffee, swine, and cacao. For example, the coffee NAMA proposes sustainable coffee with low carbon consumption, resilience to climate change and supporting emissions reductions commitments.

The priorities of the energy sector, with a specific focus on electricity generation are:

-New forms of electricity generation including renewables

-Biomass

-Wind energy

-Hydroelectric

-Solar

-Natural gas

-House appliances

-Air conditioning

-Refrigeration

-Efficient energy consumption

-Electric industrial motors

-Green building standards:

<https://www.usgbc.org/help/what-lead>

-Transportation

-Increase mass public transportation in

energy-efficient vehicles, such as metros, teleferico, taxis, school buses, and electric cars and buses

-Introduce enabling conditions to increase the supply of electric vehicles for private consumption

NAMA

According to UNFCCC, NAMA's (Nationally Appropriate Mitigation Actions) are measures intended to cut emissions in developing nations and are planned under the auspices of a national government program. They can be policies seeking to bring out transformative change within a single economic sector or activities spanning many sectors with a greater national impact.



Figure 1. Electric vehicle charging stations

Adaptation Priorities

Climate adaptation is just as critical as climate mitigation, especially in countries like the Dominican Republic that are constantly facing the effects of climate change. The DR's NDC specified the following adaptation priorities:

- Improve water and food security
- Climate resilient and healthy cities
- Resilient ecosystems and biodiversity
- Environmental sustainability in the private sector with a particular focus on tourism
- Conservation, protection, and improved management of natural spaces

As stated by the World Bank, 55% of the world's population live in urban areas. As of 2021, 83.2% of the DR's total population lives in urban areas and cities. For this reason, climate adaptation is intricately aligned with improved urban planning, identifying vulnerable communities to promote long-term climate resilience that include ecosystems. This involves the development of climate-resilient infrastructure, redesign of construction standards that include climate risk, and strategic environmental assessments as well as environmental impact assessments for all projects. In the event of a natural disaster, the DR NDC has suggested improvements in early warning systems and promoting access to a secure system for reporting loss and damages from climate events. Finally, all initiatives should, whenever possible, incorporate nature-based solutions with a focus on the entire landscape. In alignment with climate mitigation, all initiatives should avoid land use change, deforestation and degradation and promote biodiversity and soil conservation and reforestation and restoration activities.

The Central Bank of the Dominican Republic, reports that tourist income accounts for 36.4% of total exports of goods and services in 2019. These tourists, about 70.6%, come seeking the DR's pristine beaches and coastal-marine environment. Therefore, the DR government has emphasized protecting its coastal-marine area to promote sustainable tourism. In that regard, the DR NDC suggests zoning and planning that considers climate adaptation as well as resilient coastal infrastructure and green infrastructure. The DR NDC suggests creating a fund for the restoration of mangroves, estuaries, coral reefs, and other coastal-marine ecosystems that increase resilience to climate change. Therefore, the DR tourism sector envisions offering a more diverse and resilient tourism offer that includes ecotourism and nature-dependent tourism.

For the water sector, please refer to the Dominican Republic Water Sector report 2021.

Climate Governance and Enabling Conditions for Business

The DR entrepreneurial and climate change sectors can rely on the Dominican Constitution, more than 10 laws, and even more policies, strategies, and plans that create enabling conditions for doing business on climate-related issues. Pending legislation, however, include a Climate Change Law and Efficiency and Rational Use of Energy Law, that have reached Congress, but have not passed.

Some of the laws and policies relevant for the business sector are:

- [Law 1-12 on the 2030 National Development Strategy of the DR](#)
- [Law 64-00 on Environment and Natural Resources](#)
- [Law 147-02 on Disaster Risk Management](#)

- [Law 08 on Agriculture](#)
- [Law 8-90 on Free Trade Zones](#)
- [Law 158-01 on Tourism Development Generation](#)
- [Law 225-20 on Solid Waste Management and Co-processing](#)
- [Law 57-07 on Renewable Energy](#)
- [DR's National Adaptation Plan 2015-2030](#)
- [DR's Third National Communication on Climate Change](#)
- [National Plan for Food and Nutritional Sovereignty and Security 2019-2022](#)

Climate Finance

The global climate finance architecture involves many countries and organizations under UNFCCC and non-UNFCCC financial mechanisms. A 2021 report on the global climate finance architecture can be found on the [Climate Funds Update website](#). In this brief, we have adapted their structure to the Dominican Republic and included a 2013 report developed by Participación Ciudadana on “[An Assessment of Climate Finance Governance in the Dominican Republic](#)”. This document highlights the most important organizations providing climate finance or implementing climate change projects in the DR, recognizing that there are more entities involved. In addition, while these organizations can make use of their own funds to implement climate projects, they also collaborate regularly for the execution of large-scale projects and leverage funding to achieve programmatic objectives and bolster country priorities.

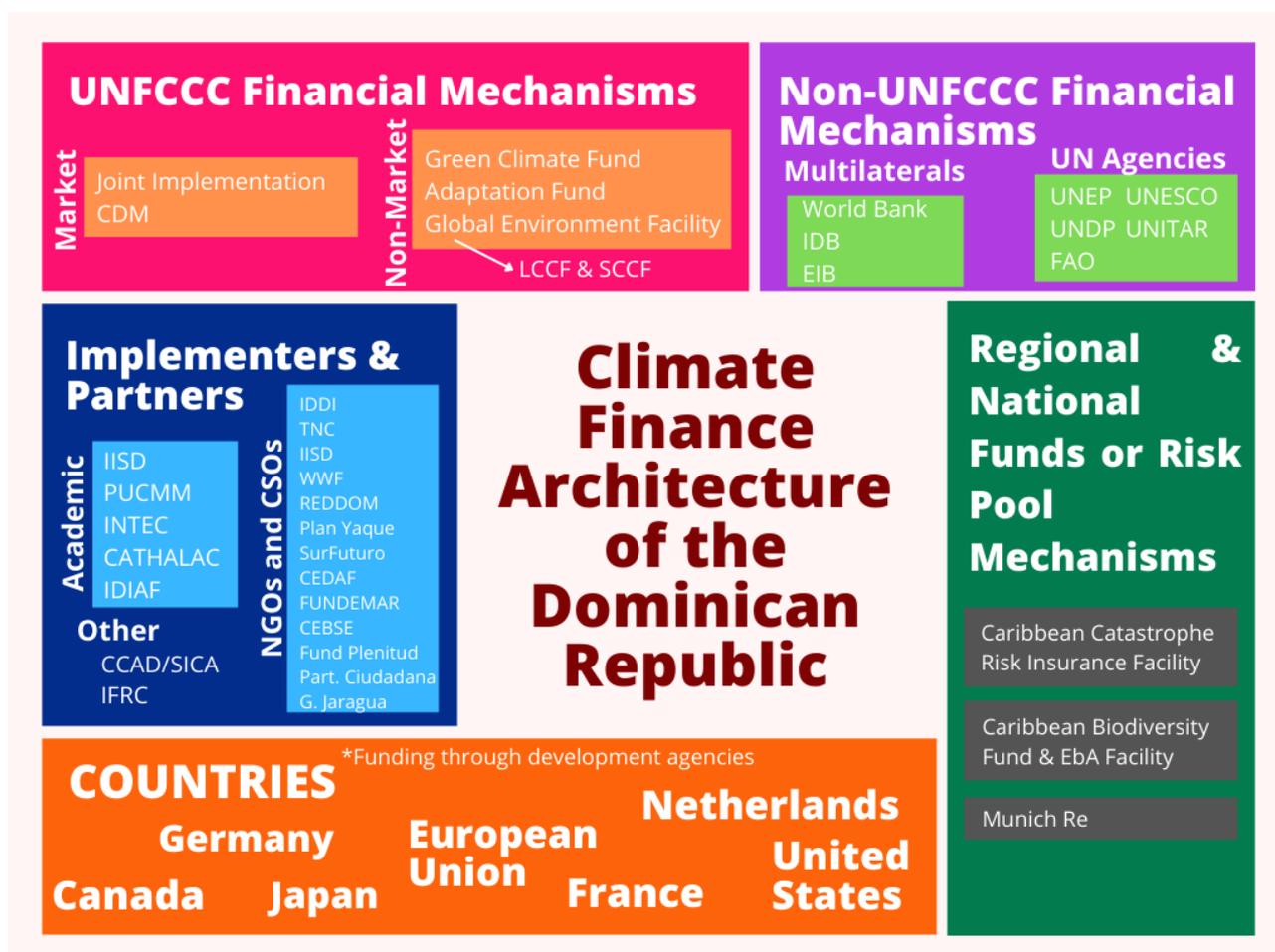


Figure 2. Climate finance architecture for the DR

The private sector has access to several financial mechanisms. One involves the [private sector facility of the Green Climate Fund](#) that promotes private sector investment concessional instruments with low-interest and long-tenor project loans, lines of credit to banks and other financial institutions, equity investments and risk mitigators, such as guarantees, first-loss protection, and grant-based capacity-building programmes. The Caribbean Biodiversity Fund's [EbA Facility](#) is a sinking fund that awards grants on a biannual basis for actions in the Caribbean that support climate change adaptation and poverty alleviation through biodiversity conservation and ecosystems management using the [EbA definition](#) of the International Union for Conservation of Nature (IUCN). The Adaptation Fund is another source of funding for the business sector through its [Innovation Facility](#) and innovation grants.

The latest development in furthering private sector finance in the Dominican Republic was announced in February 2022 by the Ministry of Environment and Natural Resources. The "[Dominican Republic Green Taxonomy](#)" project seeks to implement strategies that promote the growth of the sustainable capital market and contribute to climate change mitigation. Working closely with the Superintendent of the Securities Market and the International Finance Corporation (IFC), the green taxonomy will provide the country with classification tools to help investors and companies make informed, science-based investment decisions on sustainable environmental activities. The sectors that have been prioritized include: energy, transportation, construction, information and communication technologies (ICT), industry, water, and waste.



Figure 3. Launch of the DR Green Taxonomy

Investment climate in the Dominican Republic

The Dominican Republic has had a Bilateral Investment Treaty (BIT) with the Netherlands since 2006 to promote business ties between the countries and economic cooperation. In the [2019 Global Competitiveness Index](#), the Dominican Republic placed 78/141. This is a steady improvement from previous analyses of the DR's competitiveness compared with the rest of the world. Although the COVID-19 pandemic pushed the country into a recession, labor participation in the later half of 2021 and now in 2022, especially in the important economic sectors of tourism, free trade zones, foreign direct investment, and telecommunications, is helping the economy recover.

Following the [2019 Global Competitiveness Index](#) and the [World Bank's country profile](#), the DR should continue pursuing macroeconomic stability, given by debt management and continuous development of local capital markets. The [U.S. Department of State 2021 Investment Climate Statement for the Dominican Republic](#) reports indicates that foreign investors report systemic problems such as lack of clear, standardized rules by which to compete and enforcement of existing rules, corruption, requests for bribes, delays in government payments, weak intellectual property rights, bureaucratic hurdles, slow and sometimes locally biased judicial and administrative processes, and non-standard procedures in customs valuation and classification of imports.

Nevertheless, unlimited foreign investment is allowed in all sectors with few exceptions so that private companies can establish and own legal business in DR. To foster private investment, in early 2020, the DR government announced incentives to promote tourism and infrastructure investment in the southwest region of the country and passed a public private partnership law to spawn growth led by the private sector. In addition, the DR provides tax incentives for investments in tourism, film production, Haiti-DR border development, industry, and importantly, for renewable energy. The WB recommends structural reform to accelerate formalization that can level the competitive playing field for smaller firms and suppliers, as well as updating and enforcing business regulations that can help them thrive.

Law 57-07 on Renewable Energy

The [Law 57-07 on Renewable Energy](#) is managed by the National Energy Commission (*Comisión Nacional de Energía*) with the purpose of fostering the development of new energy sources from renewable natural resources that minimize damages to the environment through fiscal incentives that encourage firms to produce energy from renewables. These incentives are: tax exemptions, tax credits, certificates or bonds for emissions reductions, and access to financial investment funds at low interest rates.

All businesses and individuals that develop projects that produce energy or biofuels from the following sources can benefit from some or all of these incentives:

- I. wind power with installed potential that does not exceed 50MW,
- II. micro and small hydroelectric power that does not exceed 5 MW,
- III. solar photovoltaic installations of all levels,
- IV. thermo-solar installations of up to 120 MW,
- V. electric grids that use biomass as main source with up to 80 MW per thermodynamic unit,
- VI. biofuel plants (distilleries or biorefineries),

- VII. biomass farms for energy production, vegetable oil or biodiesel and thermal hydrolysis plants that produce sugar for liquor, ethanol, and/or energy or biofuels,
- VIII. installations to exploit ocean currents or thermal differences in oceans
- IX. thermal-solar installations at medium temperatures to obtain hot water and air conditioning

Climate-Related Business Opportunities

Generational shifts and the increasing demand of the world's population in its natural resources, leading to a declines in our environment and a growing concern for the future are leading many countries to implement a circular economy. That is, a transition of the economy that promotes the elimination of waste and the continual safe use of natural resources. The [Ellen MacArthur Foundation](#) base the circular economy in three principles, driven by design: elimination of waste and pollution, circulating products and materials (at their highest value), and the regeneration of nature. Therefore, "It is a resilient system that is good for business, people and the environment".

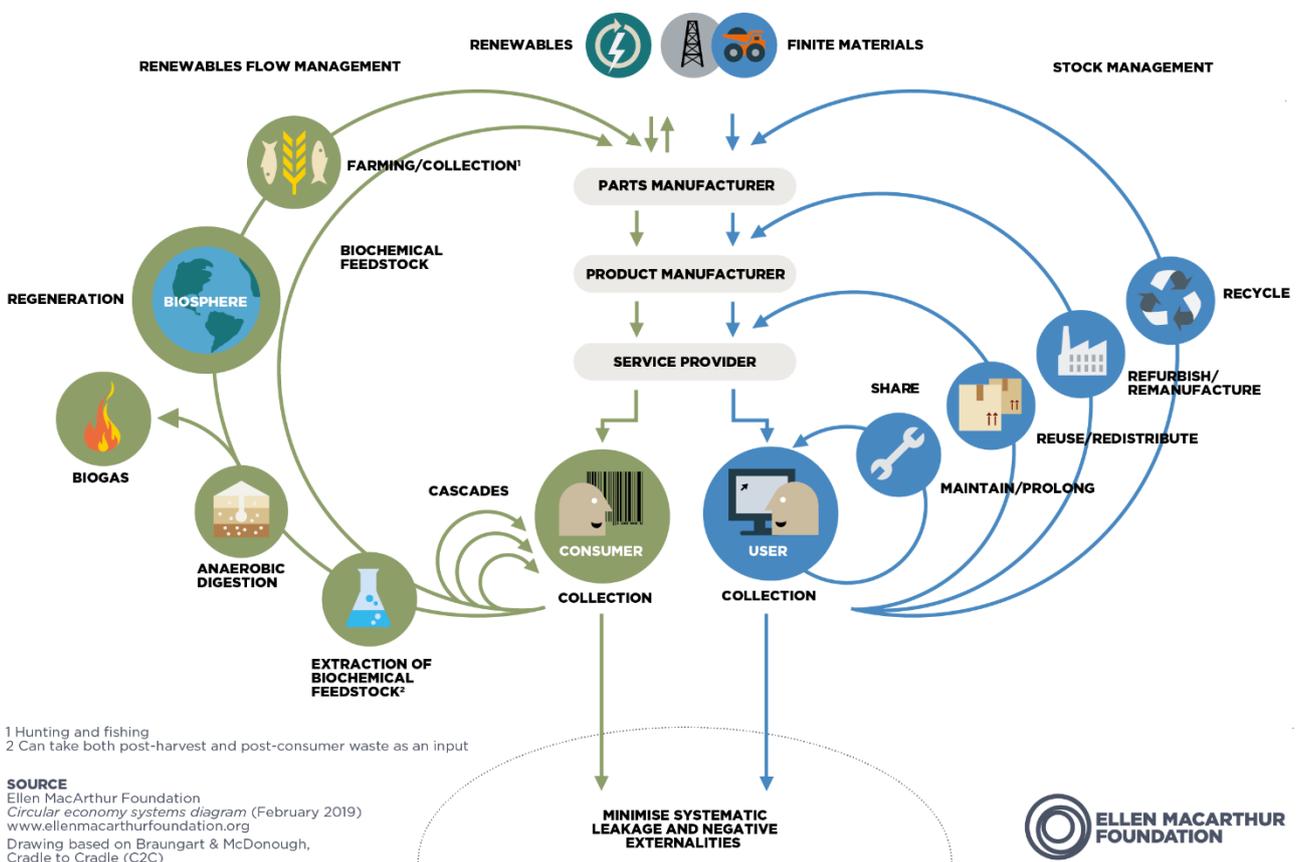


Figure 4. Circular economy systems diagram

In that regard, the recommendations below follow a circular economy framework, where investments should focus on reducing waste and using natural resources sustainably.

Most of the Dominican Republic's electricity generation is provided by fuels and biomass. However, the government is providing the enabling conditions so that large companies and investors can continue venturing into a transition to a low-carbon economy. For example, there are plans to continue building wind and solar plants funded through a pool of investors. While these are large-scale investments, there

are also opportunities for firms to the market in related services such as financing, installation, maintenance, and recycling of materials such as used solar panels.

Solid waste management is a serious problem in the Dominican Republic due to several inefficiencies of the current system and lack of resources to tackle them. Nevertheless, when well managed, instead of escaping into the air, landfill gases can be captured, converted, and used as a renewable energy resource. This can help reduce odors and other hazards associated with landfill gas emissions and prevents methane from migrating into the atmosphere and contributing to local smog and global climate change. In addition, landfill gas energy projects generate revenue and create jobs in the community and beyond.

Globally, there is increasing momentum to build [smart cities](#) with an emissions reduction lens, that consume less energy and take advantage of periods when intermittent renewable energy is available and sustainably use natural resources. Smart cities go hand in hand with the circular economy since applications of smart cities include monitoring pollution, upgraded water supply, environmentally friendly water disposal facilities, buildings with high energy efficiency, traffic management, remote working, and many others. There is a pivotal role for the [telecommunications sector](#) since these cities will rely on sensors either to record and relay real time consumption information or to detect the activities of residents. In addition, a low carbon transportation sector entails low emissions public and private transport such as metros and electric vehicles, and companies to service them, such as providing maintenance and repair and installing charging stations. Another aspect of smart cities entails green certification for buildings, such as [LEED certification](#), that is a globally-recognized symbol of sustainability since it analyzes energy and cost savings, efficiency and emissions of buildings. To learn more about smart cities, [Hong Kong has developed a blueprint](#) that identifies business opportunities in several sectors.

Finally, there are climate adaptation opportunities in the Dominican Republic that could be promoted. In the tourism sector of the Dominican Republic, there is potential to increase the supply of eco-friendly and sustainable tourism. In order to build a more resilient tourism sector, many companies are providing innovative financial mechanisms. For example, [Swiss Re](#) teamed up with The Nature Conservancy and the regional governments of Mexico to help protect the Mesoamerican coral reef off the coast of Mexico's Yucatan Peninsula. Since reefs buffer storm impacts that can lead to loss of income to the sector, this initiative would ensure a rapid disbursement of funds to deal with the reef damage. These financial mechanisms could support tourism operators in improving or scaling up their business to become more sustainable and help the economy around the sector, such as fisheries, artisans, and scuba diving companies, to rebound faster after a large storm event.

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More information

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