

# Tourism from Nature-Dependent Beaches

**EXECUTIVE  
SUMMARY**

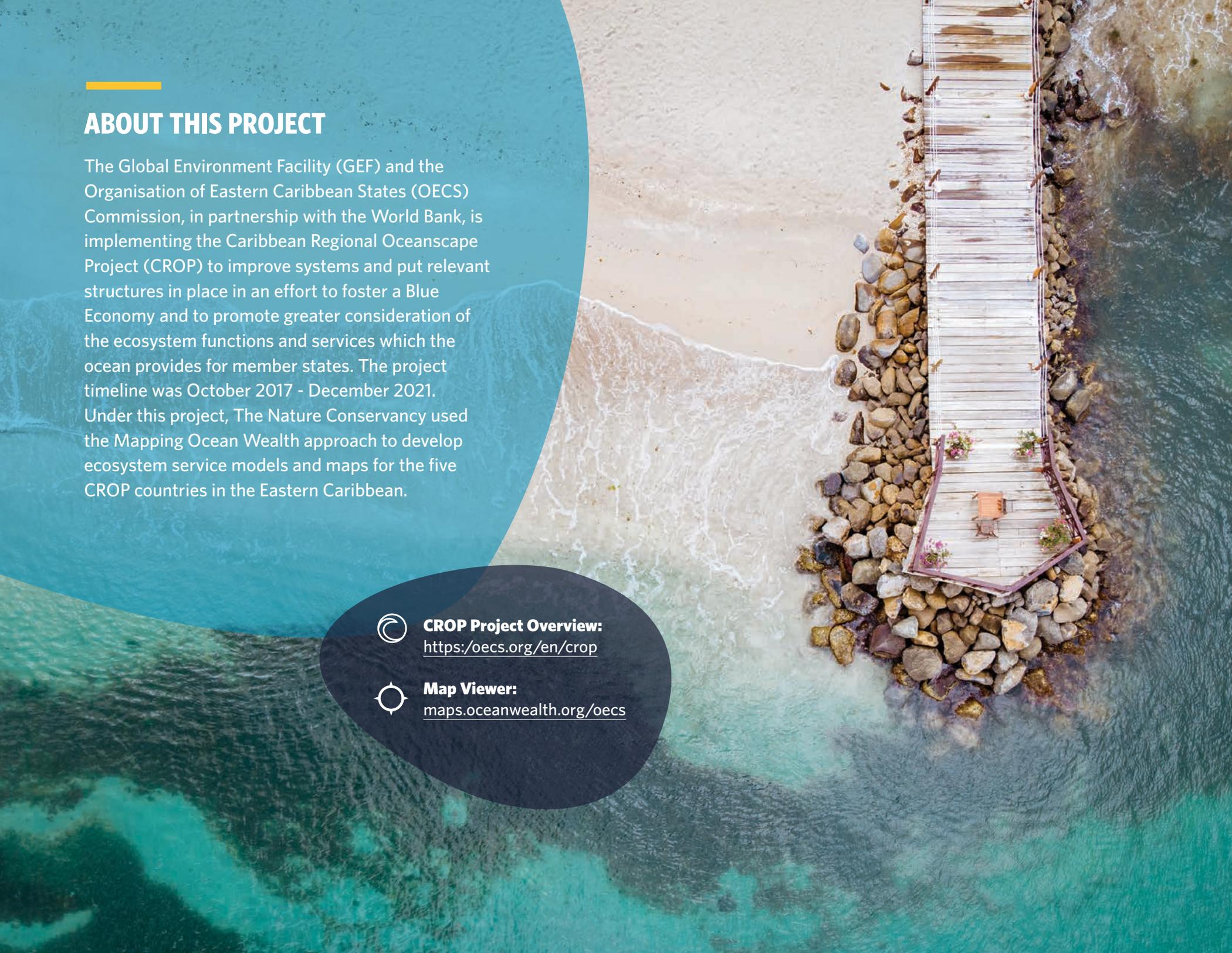
Dominica, Grenada, Saint Lucia, St. Kitts & Nevis,  
and St. Vincent & the Grenadines

Mapping Ocean Wealth (MOW) and Caribbean  
Regional Oceanscape Project (CROP)



The Nature  
Conservancy





## ABOUT THIS PROJECT

The Global Environment Facility (GEF) and the Organisation of Eastern Caribbean States (OECS) Commission, in partnership with the World Bank, is implementing the Caribbean Regional Oceanscape Project (CROP) to improve systems and put relevant structures in place in an effort to foster a Blue Economy and to promote greater consideration of the ecosystem functions and services which the ocean provides for member states. The project timeline was October 2017 - December 2021. Under this project, The Nature Conservancy used the Mapping Ocean Wealth approach to develop ecosystem service models and maps for the five CROP countries in the Eastern Caribbean.



**CROP Project Overview:**

<https://oeecs.org/en/crop>



**Map Viewer:**

[maps.oceanwealth.org/oeecs](https://maps.oceanwealth.org/oeecs)

# Introduction

The Mapping Ocean Wealth (MOW) project aims to develop ecosystem service models and maps at the scale of the Eastern Caribbean in support of the Caribbean Regional Oceanscape Project (CROP). The theory of change behind the MOW approach is that developing and improving access to accurate and spatially explicit metrics of the value of natural ecosystems could provide a critical tool in encouraging efforts to use nature sustainably, and work towards its protection, maintenance or restoration. The CROP countries (Dominica, Grenada, Saint Lucia, St. Kitts & Nevis, and St. Vincent & the Grenadines) have all made strong commitments to developing and enhancing their Blue Economies and are in the process of developing strategies and governance approaches, including marine spatial plans, to build a sustainable future centered on their marine and coastal resources. The MOW data, with its provision of detailed information on ecosystem service values, particularly relating to fisheries and nature-based tourism, together with tools and training, will be a critical component for these activities

The Caribbean is more dependent on the travel and tourism sector than any other region worldwide, and the CROP countries are among the most dependent in the Caribbean, with tourism contributing to between 32% and 68% of GDP pre-pandemic. **This sector is almost entirely focused on coastal areas, notably through beach-based activities, cruise tourism and in-water activities including sailing, and diving.**

This summary describes two models: the value of nature as a contribution to beach tourism (nature-dependent beaches); and the distribution and intensity of paddle sports (typically stand-up paddleboards and kayaks). In both cases, the data used to calculate these values were derived from a mix of large scale (global and regional datasets) and local sources, working with international partners and key collaborators within the OECS countries.

While beach tourism forms a bedrock for tourism in most countries, the role of nature in supporting and sustaining beach tourism has not been widely considered. This work rectifies this and, for the first time, estimates and maps the contribution of nature to beach values. Data for this work were derived from large volume image recognition of online photos, beach habitat maps, tourism arrival and expenditures, cruise arrival and expenditures and other cruise activities.

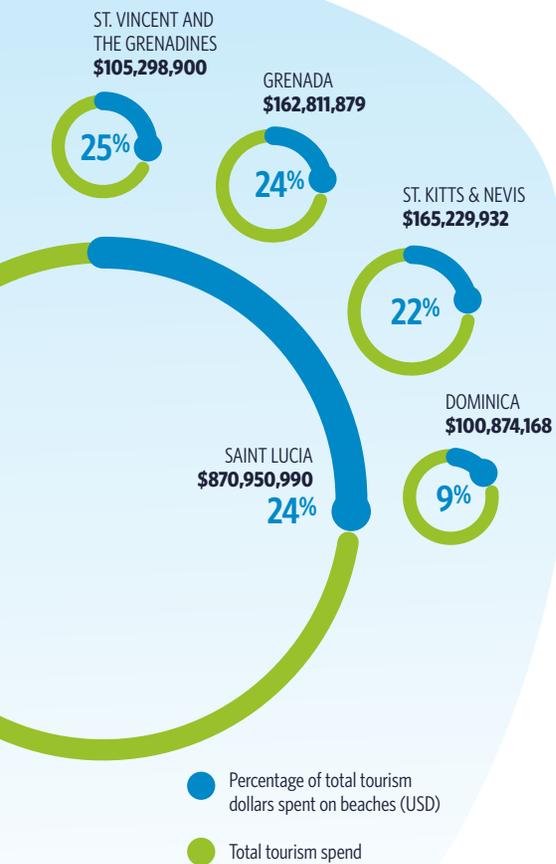
Paddle sports are activities that are highly nature-dependent and typically run directly from beach settings. Datasets depicting these activities were derived from image recognition analyses and reviews on TripAdvisor.

For each of these, a spatial model and map of “use intensity,” showing the distribution of values associated were generated. These initial maps indicate relative value. For beaches, an additional step of assigning actual value, in terms of both visitation and expenditure was undertaken.

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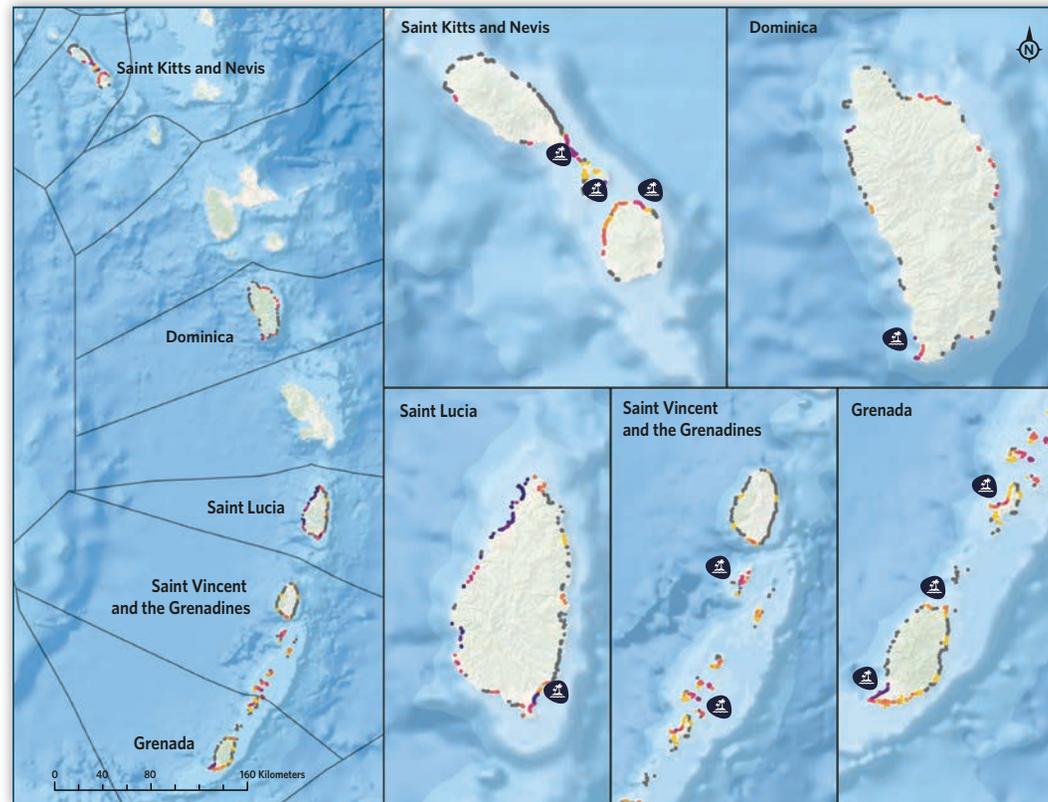
The natural values of beaches in CROP countries are estimated to generate US \$318 million with US \$302 million exclusively attributed to overnight visitors.



# Main Findings

## Nature-dependent Beaches

Nature-dependency describes the level of dependence that any beach tourism may have on key natural values, including clear clean water, natural vistas, white sand and proximity to coral reefs. For this model the values represent the likely loss of return visits (in terms of both people and expenditure) that might be expected from a moderate degradation of the natural values of beaches.



The natural values of beaches in CROP countries are estimated to generate US\$ 318 million, with US\$302 million exclusively attributed to overnight visitors. In terms of visitors these numbers can be expressed as some 215,000 overnight visitors and 348,000 cruise passengers for whom the natural values of their beaches are a critical part of destination choice.

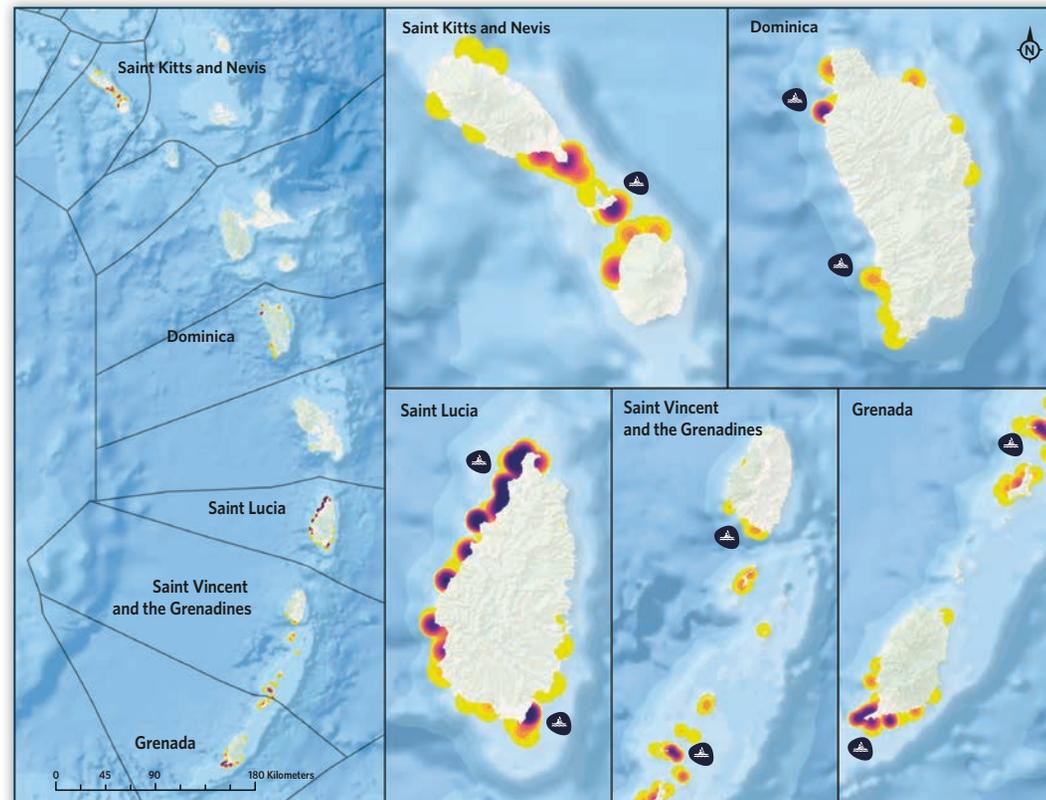
The patterns of natural value broadly follow the overall patterns of beach tourism because, in these countries, all beaches have at least some important natural attributes. At the same time, the relative importance of nature varies between locations: natural values for popular beaches in more urban settings may be proportionally far lower than those for less crowded beaches in more natural settings. Beaches such as South Peninsula Beach in St. Kitts, Grand Anse in Grenada and several beaches in Saint Lucia, including the very small beaches of La Toc, Anse Chastenet and Jalousie are examples of high natural value beaches. Their natural values alone are estimated to generate up to US\$3 million per hectare annually. Countries should consider prioritizing the conservation of the natural values of these beaches as they support livelihoods and generate a significant amount of money for the region.



**High natural value beaches are estimated to generate up to US \$3 million per hectare annually.**

## Paddle sports

A number of activities in coastal waters also have a degree of nature dependency. Two of these are kayaking and stand-up paddleboarding, which are popular in areas of clean, clear and sheltered waters, notably those with natural features such as reefs and mangrove forests. In addition to being highly nature-dependent, these activities were selected for further exploration because of their ease of identification in our search process. In total some 407 paddle sporting attractions were found across all the CROP countries, with the highest concentration of activity on the leeward coast of Saint Lucia.



### Paddle Sport Activity



### High value paddle sport activity

These locations represent selected high value areas that have been identified through modelling or stakeholder input as important to paddle sport activity.



While the data do not permit the quantification of monetary value or use, they do give a valuable indication of the popularity of these paddle-sports and a further indication of the need to manage marine and coastal resources in a manner that does not threaten such activities in future.

## Conclusions

These results highlight the importance of nature-dependent beaches and paddle-sports for the economy in CROP countries. Alongside monetary values and visitor numbers it is important to realize that these same values signify critical sources of employment and foreign exchange. They comprise a significant portion of overall GDP attributable to tourism.

In many settings across the CROP countries it is low density, more exclusive tourism that provides a critical attraction for nature-dependent tourism. Our maps highlight places where nature is critical, but the utilization of nature must also be sustainable. **There is a strong risk that growth-centric models of tourism development, building towards the highest values without considering the role of nature in driving value, could undermine the entire business model. Over-tourism is a growing concern both for destinations and for the industry as a whole.**

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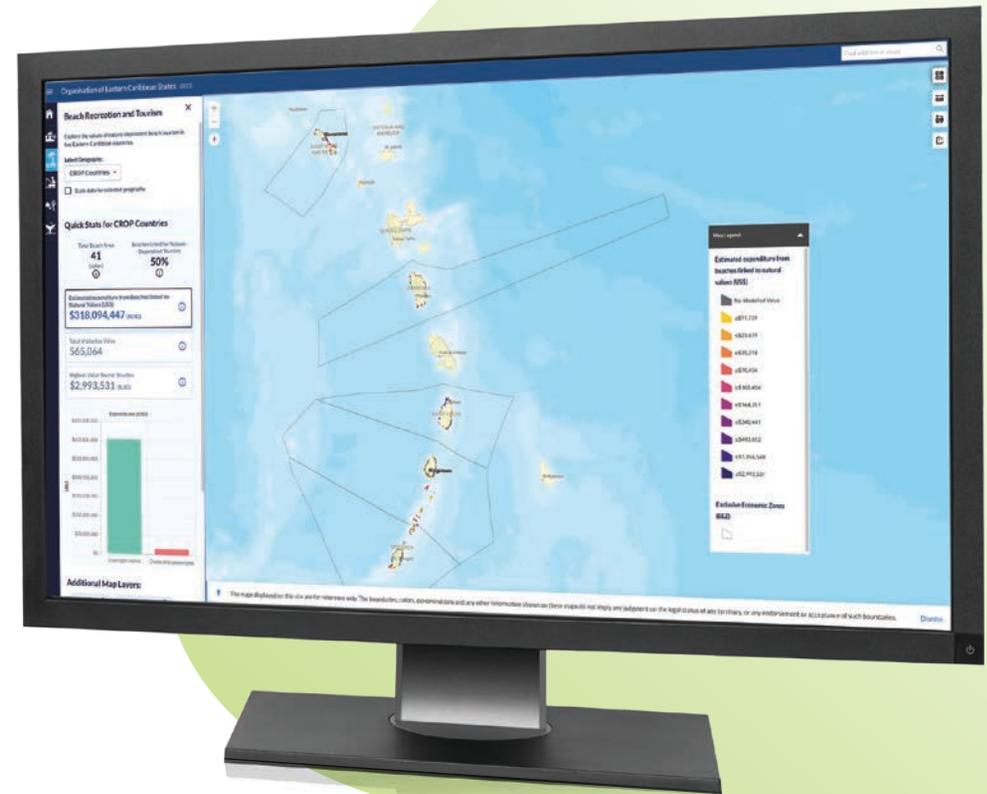
A stylized icon of a beach scene. It features a yellow sand beach with a green palm tree, a red beach umbrella, and two orange beach chairs. The background shows dark green hills under a light blue sky. The entire icon is set within a blue circular frame.

**Nature-dependent beaches** attract **HALF A MILLION VISITORS** to CROP countries per year

Given the current impact of Covid-19 on tourism in the Caribbean, and especially the likely changes in demands coming from a recovering tourism sector it is highly likely that future tourism will have, if anything, a greater dependency on natural values and lower density locations and so our sites of high natural value will likely show an increasing proportional relevance for the recovering sector.

### You can use this data to:

- Further understand the economic importance of nature for beach tourism and related activities. The overall health of the tourism sector is heavily dependent on these natural values being in good condition.
- Help to support management decisions in favour of preserving high value beaches and reefs, with understanding the varying levels of economic dependency on various marine and coastal systems. High value beaches should be a particular target for effective management and conservation activities.
- Support government decisions to spread value and develop activities across other coastal and marine areas to replicate similar benefits which provides alternative areas in the event of damage to high value reefs and beaches, and continue supporting community development and sustainable investments.



Map viewer on Mapping Ocean Wealth Platform



### FIND OUT MORE HERE

For access to the high-quality maps and the full technical report, please visit the Mapping Ocean Wealth platform <https://oceanwealth.org/project-areas/caribbean/crop/nature-dependent-beach-tourism/>.

*\*The use of user-generated content from very large crowd-sourced datasets such as Flickr and TripAdvisor is a very powerful tool for understanding relatively fine-scale patterns in tourism. Concerns have been raised about accuracy and bias, and it is clear that any public sourced datasets have a high ratio of errors. In reality it is the high volume of data that is what makes these datasets so valuable, reducing the influence of inevitable, but occasional errors. Considerable efforts were also made to clean the data, but equally important is that our work combines such data with local information. The high degree of local engagement in this work has enabled us to greatly enhance the data from these more international sources, and to proof, corroborate or correct the final models and output maps.*



# Organisation of Eastern Caribbean States



WORLD BANK GROUP



Photo: © Shane Gross

**The Nature Conservancy**

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<https://oceanwealth.org/project-areas/caribbean/crop/>