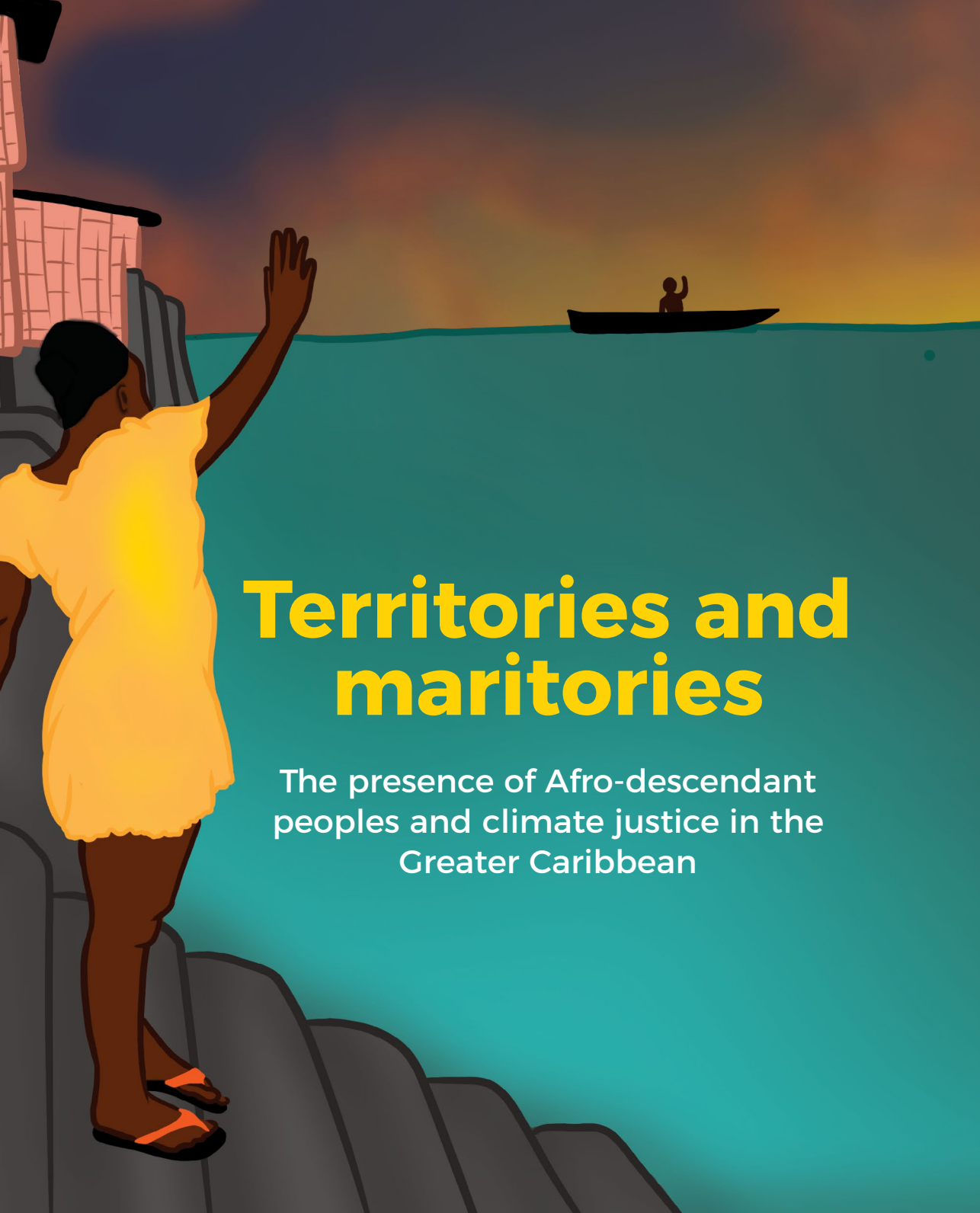




Territories and maritories

The presence of Afro-descendant peoples and climate justice in the Greater Caribbean



Observatorio
de Territorios Étnicos y Campesinos
Una apuesta por la defensa de los territorios

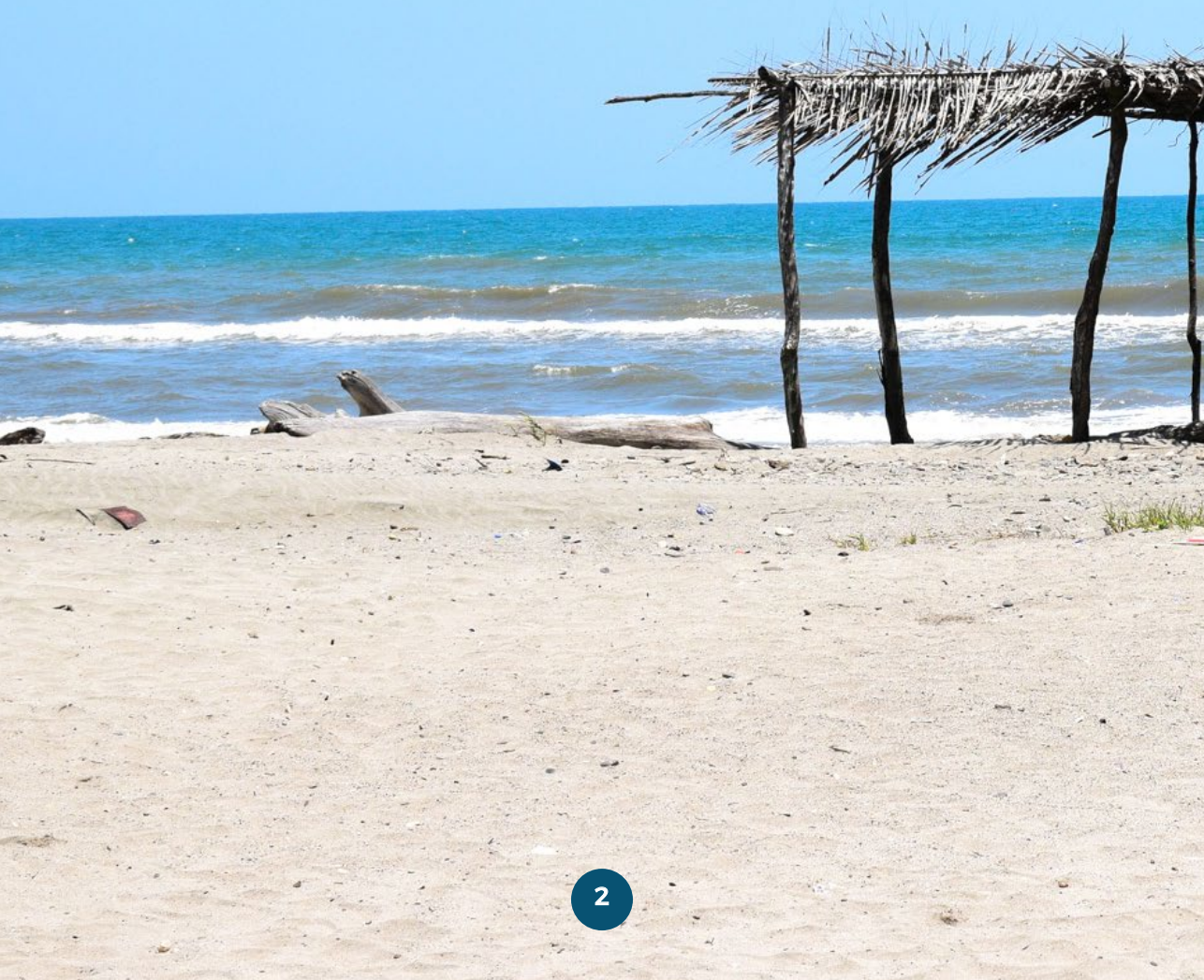


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20 años
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POR EL CAMBIO

COP30 in Belém marks a pivotal moment acknowledging the importance of Afro-descendant territories and maritime territories in climate action. The results of the study **“The presence of Afro-descendant peoples and climate justice in the Greater Caribbean”**—conducted by OTEC-PUJ, CITAFRO, and RRI—displays how Afro-descendant peoples have historical governance systems that protect key ecosystems to climate stability and food sovereignty.





The information gathered in 36 countries reveals tensions between traditional uses of the seas and lands and the expansion of intensive agriculture, extractive, industrial, and tourism projects. Although lands inhabited by afro-descendant peoples are fundamental for rights-based mitigation and adaptation, only four countries (Colombia, Brazil, Ecuador, and Nicaragua) have legal frameworks that recognize Afro-descendant collective tenure.

The results reveal the magnitude of these spaces:

- 32 million hectares of ancestral settlement¹ and more than 457,000 km² of areas of use on the sea for afro-descendant people.
- 8.3 million hectares titled or recognized to afro-descendant people³
- 5.4 million hectares with requests for recognition and demarcation⁴



The global 30×30 commitment offers a unique opportunity to conservation and climate justice. From the perspective of Afro-descendants in Latin America and the Greater Caribbean, this goal requires overcoming exclusionary conservation models and moving toward shared governance, where the protection of ecosystems is linked to the recognition of collective rights, local ecological knowledge, and sustainable ways of life.

Afro-descendant territories and maritime areas are embedded in key ecosystems for food sovereignty, resilience to extreme events, and the functioning of carbon sinks. Therefore, 30×30 must prioritize community-managed areas inhabited by afro-descendant peoples, strengthen mechanisms for territorial reparation, and integrate their ecological and cultural role.

This brochure presents a summary of the main findings and challenges for advancing climate justice with a maritime focus in the Greater Caribbean.

1. Belize, Brazil, Colombia, Costa Rica, Ecuador, Guatemala, Honduras, Mexico, Panama, Perú, Suriname, Venezuela.

2. Antigua and Barbuda, Barbados, Belize, Brazil, Colombia, Costa Rica, Cuba, Curacao, Dominica, Grenada, Guatemala, Haiti, Honduras, Cayman Islands, Jamaica, Martinique, Nicaragua, Panama, Puerto Rico, Dominican Republic, Saint Vincent and the Grenadines, Saint Lucia, Trinidad and Tobago, Venezuela.

3. Bolivia, Brazil, Colombia, Ecuador, Suriname

4. Bolivia, Brazil, Chile, Colombia, Ecuador, Suriname

Key data:



Country	Area of municipalities with over 10% of the population self-identifying as Afro-descendant(a)	Titled areas	Area with pending recognition and demarcation requests	Maritime claims by Afro-descendant communities (b)	Area of traditional maritime use by afro-descendant communities (km2) (c)
Bolivia		211,169.40	244,781.90		
Brasil*	**	1,221,225.10	2,737,848.20		28 Marine Extractivist Reserves (RESEX) 14,127.92 (d)
Chile			1,703.30***		
Colombia	11,428,974.40	5,789,283.40	890,486.90	Under review	2 nautical miles (ZEPA) 22.5 nautical miles (ZEMP)(e) 38,615.40
Ecuador	834,595.60	121,460.90	176,143	10 nautical miles	
Honduras	1,513,541.20	32,000****		12 nautical miles	55,808.38
Nicaragua		926,205		12 nautical miles	69,460.56
Suriname	3,239,792.20		1,422,366.5***		

Table 1. Settlement areas, demarcated and titled territories, and marine use zones of Afro-descendant peoples.

a. Corresponds to political-administrative boundaries where Afro-descendant peoples are present or have self-identified in censuses with percentages above 10%, but the areas are overestimated because they do not necessarily occupy the entire geographical unit.

b. In the workshops in the Dominican Republic and Nicaragua, social mapping was carried out to identify the main areas of use and claims on the sea. In the interviews conducted during the research process, areas of use, distances from the coast, and claims on the sea were identified.

c. The identification of fishing and use areas in maritorios was carried out using two complementary approaches. The first consisted of delimiting ocean banks and coastal areas located in shallow sea areas, with depths between 0 and 50 meters and 50 and 100 meters. These areas have been associated with fishing grounds because the entry of light into these areas allows the development of algae and other organisms that serve as a food source for commercial marine species (Díaz, Vieira, & Melo, 2011); (González, Rivera, & Manjarrés-Martínez, 2015); (López-Perdomo & Guzmán-Alvis, 2024). In addition, several interviews identified these areas on the continental coasts and insular fishing grounds as the most important sites for artisanal fishing. This initial delimitation allowed for a first approximation of the oceanic banks, also known as fishing grounds. This information was supplemented with data on artisanal fishing activity for Colombia (https://siam.invemar.org.co/informacion-geografica), Costa Rica (https://geoportal.marviva.net/), Honduras (Digepesca-SIGMEPH), and Nicaragua (INPESCA-Fishing Map). The available geographic information layers were used to verify that the data derived from the demarcation of shallow areas corresponded to coastal and insular artisanal fishing activities.
d. Corresponds to conservation units that have the legal function of protecting the livelihoods and culture of extractive populations that survive on marine resources. The data are based on De Macedo Veras, C., Galvão, V. K., & Junkes, J. A. (2025), and the hectares are a sum calculated by the author based on the files of the Chico Mendes Institute for Biodiversity Conservation (ICMBio). In its original version, it is expressed in hectares for a total of 1,412,792.728.
e. The ZEPA and ZEMP have been established in some parts of the northern Colombian Pacific through AUNAP Resolution 2724 of 2017. However, there are other areas and demarcations that INVEMAR has established for artisanal fishing areas.
*Information derived from the INCRA and IBGE cartographic database of titled and demarcated Quilombola territories.
** In Brazil, only a small fraction of the 506 Quilombola territories have officially recognized boundaries. There are 3,502 communities certified by the Palmares Cultural Foundation without demarcation, 1,856 pending titling processes at the National Institute of Colonization and Agrarian Reform (INCRA), and 6,680 Quilombolas without recognized boundaries, registered by the Brazilian Institute of Geography and Statistics (IBGE).
*** Demarcated areas where the peoples have expectations, but there are no legal tools for titling.
****The areas are derived from legal documents; it was not possible to map this due to a lack of information.

Country	Area of municipalities with over 10% of the population self-identifying as Afro-descendant	Area of traditional maritime use by afro-descendant communities (km2)*
Venezuela	6,363,991.70	94,070.27
Perú	2,866,999.10	
Mexico	2,298,221.10	
Panama	1,611,823.20	43,546.07
Guatemala	1,037,099.60	10,928.08
Belice	1,013,950.30	9,183.90
Costa Rica	481,600.80	12,437.69

Table 2. Administrative areas in countries with Afro-descendant self-identification greater than 10%.

Country	Area of traditional maritime use by afro-descendant communities (km2) *
Cuba	54,710.56
Trinidad and Tobago	16,940.07
Jamaica	13,051.12
Dominican Republic	8,019.58
Puerto Rico	4,411.60
Antigua and Barbuda	3,322.97
Haití	3,213.73
Saint Vincent and the Grenadines	1,697.06
Grenada	1,597.48
Martinique	1,255.41
Saint Lucia	419.98
Cayman Islands	339.37
Dominica	309.80
Barbados	158.83
Curaçao	3.46

Table 3. Marine use areas identified in the countries of the Greater Caribbean.

* The identification of fishing and use areas in maritorios was carried out using two complementary approaches. The first consisted of delimiting ocean banks and coastal areas located in shallow sea areas, with depths between 0 and 50 meters and 50 and 100 meters. These areas have been associated with fishing grounds because the entry of light into these areas allows the development of algae and other organisms that serve as a food source for commercial marine species (Díaz, Vieira, & Melo, 2011); (González, Rivera, & Manjarrés-Martínez, 2015); (López-Perdomo & Guzmán-Alvis, 2024). In addition, several interviews identified these areas on the continental coasts and insular fishing grounds as the most important sites for artisanal fishing. This initial delimitation allowed for a first approximation of the oceanic banks, also known as fishing grounds. This information was supplemented with data on artisanal fishing activity for Colombia (<https://siam.invemar.org.co/informacion-geografica>), Costa Rica (<https://geoportal.marviva.net/>), Honduras ([Digepesca-SIGMEPH](#)), and Nicaragua ([INPESCA-Fishing Map](#)). The available geographic information layers were used to verify that the data derived from the demarcation of shallow areas corresponded to coastal and insular artisanal fishing activities.



Statistical and cartographic visibility

Information on the Afro-descendant population in the region is uneven and often controversial, as not all countries include self-identification questions in their censuses. Even so, the available data allow us to identify general trends. The highest levels of self-identification are reported in Brazil (56%), Panama (42%), Belize (36%), and Suriname (17.6%). In other countries, the figures are lower or subject to underreporting: Colombia (9.34%), Nicaragua and Honduras (9%), Costa Rica (8%), Ecuador (7.1%), Peru (3.6%), Venezuela ($\approx 3\%$), Mexico ($\approx 2\%$), Guatemala (1%), and Bolivia (0.2%).





In Chile and Paraguay, there is no self-identification in the census, although in the latter, Afro-descendant communities such as Camba Cuá, Camba Cocué, and Emboscada are recognized. The most recent data correspond to Mexico (2020), Colombia, Peru, and Guatemala (2018), and Panama (2017).

Table 4. Countries with censuses reporting Afro-descendant self-identification and corresponding percentages.

Country	Self-identification (%)	Census designation
Brasil	56	Black/Afro-descendant
Panama	42	Afro-descendant
Belize	36	Creole, Garifuna, African descent
Suriman	17.6	Maroons
Colombia	9.34	Black, Afro-descendant, Raizal, or Palenquera
Nicaragua	9	Afro-descendant
Honduras	9	Afro-descendant
Costa Rica	8	Black/Afro-descendant
Ecuador	7.1	Afro-Ecuadorian
Peru	3.6	Black
Venezuela	2.79	Black
Venezuela	0.67	African descent
Mexico	2	Afro-Mexican or Mascogo
Guatemala	1	Garifuna, Afro-descendant, Creole, or Afro-mestizo
Bolivia	0.2	Afro-Bolivian
Chile	No tienen la pregunta	
Paraguay	No tienen la pregunta	

The lack of recognition of Afro-descendant communities as ethnically distinct groups limits fundamental rights: political participation, consultation and prior consent, collective tenure, etc.

Regional analysis shows profound inequalities in statistical visibility. Of the 26 countries studied, only 18 include self-recognition questions in their censuses, which highlights a structural gap in terms of justice and ethnic recognition, according to the regional study by CITAFRO, OTEC, and RRI.

The Lesser Antilles have the highest levels of Afro-descendant self-recognition: Dominica (97.2%), Antigua and Barbuda (86.5%), Puerto Rico (82.8%), and Grenada (75%). In contrast, territories under European administration (Martinique, Guadeloupe, and French Guiana), as well as several countries in the Greater Antilles, show a high degree of statistical invisibility. In Cuba and the Dominican Republic, official figures do not exceed 10%, although international organizations estimate values between 34% and 36%, reflecting a persistent omission in census and political recognition.





Strategic ecosystems



On the mainland, five strategic ecosystems for climate adaptation and mitigation have been identified in areas with an Afro-descendant presence: wetlands, rainforests, savannas, mangroves, and dry forests.

Titled and demarcated territories and settlement areas have high levels of conservation: 83% of titled territories, 72% of demarcated territories, and 80% of settlement areas maintain essential forests and vegetation cover. Tropical rainforests dominate more than 50% of Afro-descendant areas in Honduras, Belize, Costa Rica, Panama, Colombia, and Suriname, while wetlands predominate in Bolivia.

Nearly 70% of artisanal fishing is concentrated in shallow waters where mangroves, seagrasses, and reefs form a vital marine ecological corridor for the sustainability of the Caribbean. Industrial fishing, pollution, and regulatory restrictions threaten its ecological and cultural continuity.

Coral reefs cover 5,945 km², led by Cuba (46%), Belize (17%), and Panama (6%). Although more than 50% is protected, up to 80% could be lost by 2100 due to rising temperatures and bleaching.



Mangroves, the second line of coastal defense, cover 14,959 km² and store up to five times more carbon than tropical rainforests. Cuba, Venezuela, and Colombia have the largest areas; Honduras and Nicaragua stand out for their high level of protection. 1,470 km² could be lost by 2100, increasing coastal exposure.

Seagrass beds, the third ecological pillar of marine protected areas, cover more than 33,000 km² and are key to carbon sequestration and biodiversity. Cuba, Nicaragua, and Belize are home to the largest areas, but these could be reduced by up to 78% by 2100, affecting local economies and ecological chains.

Climate vulnerability

- Climate projections show a widespread increase in temperature in the biomes of the continental Caribbean and Latin America, between $+2.5^{\circ}\text{C}$ and $+3.3^{\circ}\text{C}$ by the end of the century.
- An annual loss of water is expected in most ecosystems (-100 to -200 mm), with specific exceptions in humid tropics, where intense rainfall could increase.
- Increased seasonality and prolonged droughts will particularly affect dry biomes, savannas, and montane ecosystems, reducing water recharge and ecological resilience.
- Titled Afro-descendant territories show greater climate stability—more humidity, more vegetation cover, and less rainfall variability—acting as spaces of socio-ecological resilience.
- In contrast, areas without recognition or in the process of demarcation concentrate the most severe impacts (temperature increase, droughts, water loss) coupled with institutional vulnerability, creating a double risk that requires differentiated measures.

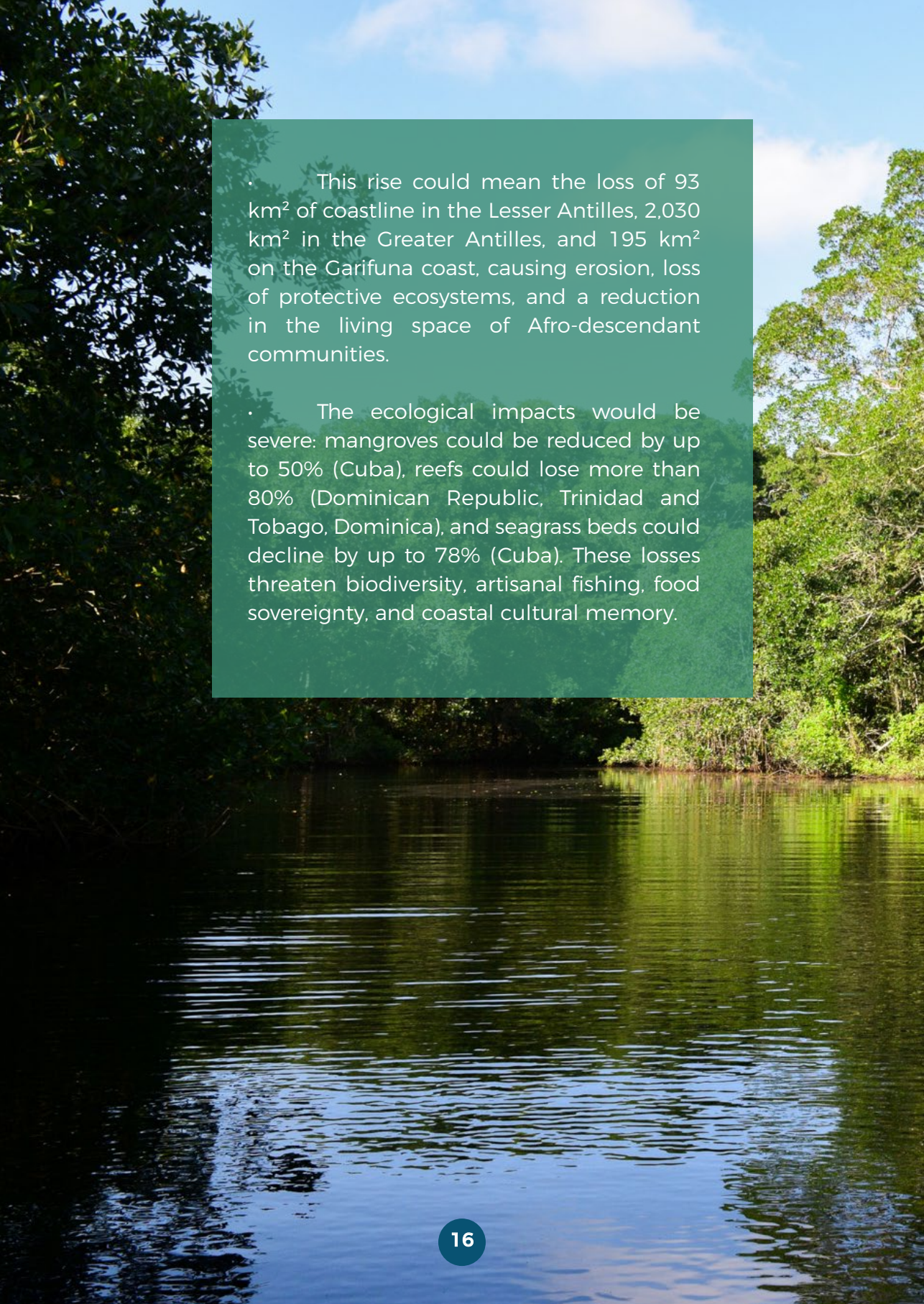


• The vulnerability of the Great Caribbean maritorios can be explained by three critical variables: increased sea surface temperature, ocean acidification, and sea level rise.

By the end of the century, the following is projected:

- a **+2.7°C to +3°C** increase in sea surface emperature,
- a reduction of **-0.34 pH** due to acidification,
- and a sea level rise of up to **0.94 m** in areas such as Belize.





- This rise could mean the loss of 93 km² of coastline in the Lesser Antilles, 2,030 km² in the Greater Antilles, and 195 km² on the Garifuna coast, causing erosion, loss of protective ecosystems, and a reduction in the living space of Afro-descendant communities.

- The ecological impacts would be severe: mangroves could be reduced by up to 50% (Cuba), reefs could lose more than 80% (Dominican Republic, Trinidad and Tobago, Dominica), and seagrass beds could decline by up to 78% (Cuba). These losses threaten biodiversity, artisanal fishing, food sovereignty, and coastal cultural memory.



Recommendations for the construction of new evidence

Strengthening adaptive management in Afro-descendant marine communities of the Greater Caribbean requires integrating local knowledge with technical data. Four priority research lines are proposed to build robust arguments against climate change, biodiversity loss, and marine-coastal ecosystem transformation.

a. Loss of diversity and ecosystem services



Caribbean marine ecosystems shown accelerated degradation associated with rising sea temperatures, acidification, and deoxygenation (Bove et al., 2022; Dube, 2024). Live coral cover has declined by 50–80% since 1970 (Cramer et al., 2021), while seagrass beds and mangroves are losing their extent and blue carbon storage capacity (EEA, 2023). Assessing the functional loss of these ecosystems in terms of fisheries productivity, carbon, and coastal protection will allow for the prioritization of critical areas for restoration and resilience (CoastPredict, 2024).

b. Monitoring of sargassum and invasive species



The massive arrival of sargassum is a growing regional phenomenon linked to climate change, eutrophication, and changes in ocean currents (Gower et al., 2013; FAO, 2022). It is recommended that a regional geospatial baseline be developed using MODIS and Sentinel-3 imagery, with validation and participation from coastal communities to estimate the impact on beaches, mangroves, and local economies (Olabarriá & Vásquez, 2018).

c. Extreme weather events



The increase in the frequency and intensity of hurricanes, storm surges, and torrential rains generates unprecedented erosion and flooding events (Fang et al., 2021; Wu et al., 2024). It is necessary to correlate historical data and hydrodynamic modeling to construct a regional risk framework, accompanied by post-event restoration protocols for mangroves, reefs, and seagrass beds (Kendrick et al., 2019; Darling et al., 2022).

d. Migration of marine species

Ocean warming alters the distribution and migration of fish, turtles, and apex predators, affecting food security and artisanal fisheries (Evans et al., 2024; Manz et al., 2025). It is recommended to implement species distribution models (SDMs) that integrate temperature and salinity projections, together with participatory monitoring to record displacements and socioeconomic effects on Afro-descendant communities.



Thematic area	Quantitative indicators	Sources
Loss of diversity and ecosystem services	-Live coral cover (%) -Extent of mangroves (ha) -Fisheries biomass (t/km²) -Blue carbon (Mg C ha⁻¹)	GCRMN, CoastPredict, UNEP-CEP, EEA (2023)
Monitoring of sargassum and invasive species	-Area affected by arrivals (km²) -Annual frequency of events -Nutrient concentration (mg/L N-P)	FAO. (2022); Gower, J., et al. (2013)
Extreme weather events	-Annual number of hurricanes category ≥ 3 -Average sea level (mm/year) -Coastal erosion rates (mm/year)	NOAA, IPCC AR6 (2021), Fang, Y., et al. (2021)
Migration of marine species	-Migration routes (km) -Sex-dependent ratio in turtles (% females) -Latitudinal shifts (in degrees)	Manz, J. A., et al. (2025)

Table 5. Quantitative indicators for monitoring impacts of climate change.







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