

Caribbean Reef Insurance Program

Launched through the Reef Resilience and Risk Financing Mechanism (R3FM) project

The Caribbean Biodiversity Fund (CBF) is piloting a regional reef insurance program to finance emergency reef response after hurricane impacts.

Caribbean coral reefs are among the most ecologically and economically significant ecosystems in the region. Despite their critical importance, reef ecosystems face accelerating threats, including from increasingly damaging hurricanes.

Following the Mesoamerican Reef Fund's (MAR Fund's) successful application of parametric insurance to manage hurricane risk to the Mesoamerican Reef, CBF has partnered with WTW, MAR Fund, and four local partners, all National Conservation Trust Funds (NCTFs), to pilot a regional parametric insurance program to protect Caribbean coral reefs.

Insurance placed for the
2026–2027
atlantic hurricane season

Insurance policyholder:
The Caribbean Biodiversity Fund

Insurance Broker:
WTW

Insurer: Liberty Mutual

Financial support for annual insurance premium:
The InsuResilience Solutions Fund (ISF)

USD
1 MILLION
Annual coverage

USD
150,000
Maximum payout per event

180,000
HECTARES
Reef area insured

USD
100,000
Net annual premium

REGIONAL INSURANCE FOR NATIONAL REEF RESPONSE

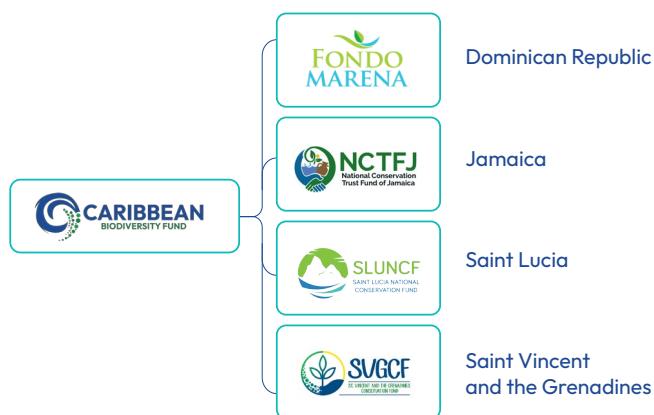
The Caribbean reef insurance program is designed to finance reef response after hurricanes. The policy in place for the 2026–2027 Atlantic hurricane season covers the coral reefs of the Dominican Republic, Jamaica, Saint Lucia, and Saint Vincent and the Grenadines (Figure 1).

● Covered coral reefs

Figure 1: Map depicting the coral reefs covered for the pilot 2026–2027 policy year of the Caribbean reef insurance program purchased by CBF.

Caribbean reef response funding architecture

CBF acts as the regional insurance policyholder. If a hurricane triggers a payout, the insurer pays CBF the payout amount, calculated for each covered country according to the parametric payout matrix. CBF then disburses grant funding to national partners for reef response (Figure 2).



National partners then channel funding through national reef response systems, which coordinate and mobilize execution partners for local reef response.

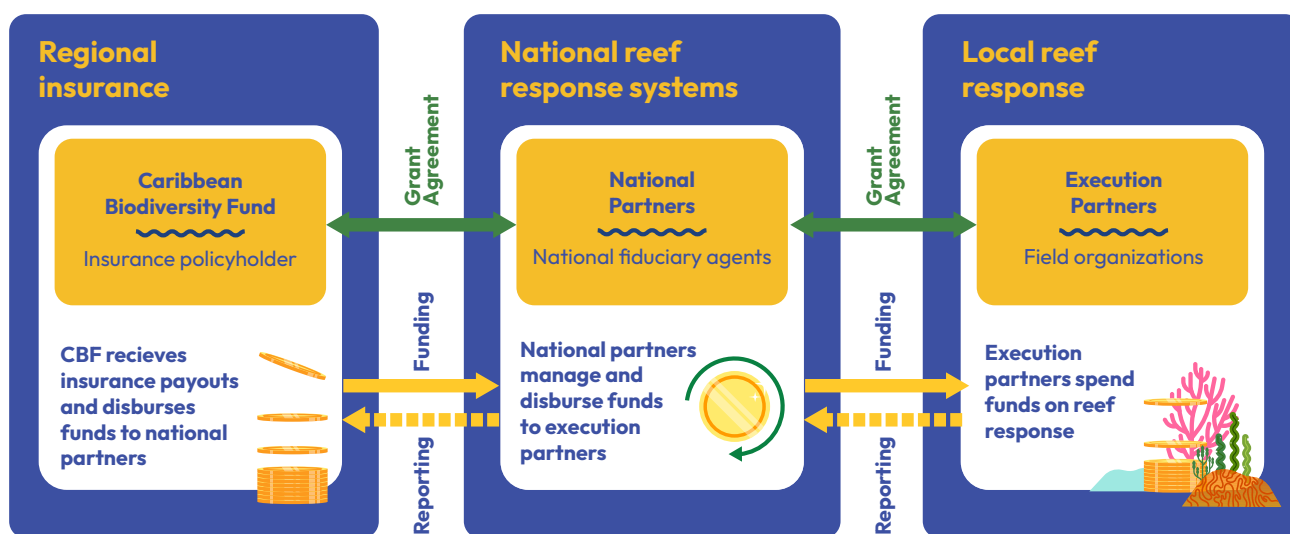


Figure 2: Caribbean reef response funding architecture.

Parametric insurance is central to the speed of response. Because payouts are triggered by quickly available and independently verifiable hurricane parameters, rather than by damage assessment, funds can be disbursed within weeks of a storm, before the window for effective reef intervention closes.

INSURANCE STRUCTURE

Parametric trigger

The parametric insurance instrument is designed to “trigger” payouts when hurricanes impact the coral reefs of covered countries, based on the independently measurable characteristics of the hurricane, rather than the actual damage it causes.

The Caribbean reef insurance program’s “Dynamic Cat-in-Circle” structure utilizes three parameters to trigger payouts:



Intensity parameter

the hurricane’s category on the Saffir-Simpson Hurricane Wind Scale (which is determined by its maximum sustained wind speed).



Size parameter

the hurricane’s radius of maximum winds, which is the distance between the center of the hurricane and its band of strongest winds.



Location parameter

the location of the hurricane, in relation to the coral reefs of covered countries.

Payout matrix

The payout amount for any given hurricane event depends on its category on the Saffir-Simpson Hurricane Wind Scale and the proximity of its maximum winds to the coral reefs of covered countries. If a hurricane passes over or near the coral reefs of any covered country in the current policy year (1 June 2026 – 31 May 2027), a payout for each country is calculated based on the payout matrix below. The total payout amount is then subject to the policy limit of USD 1,000,000.

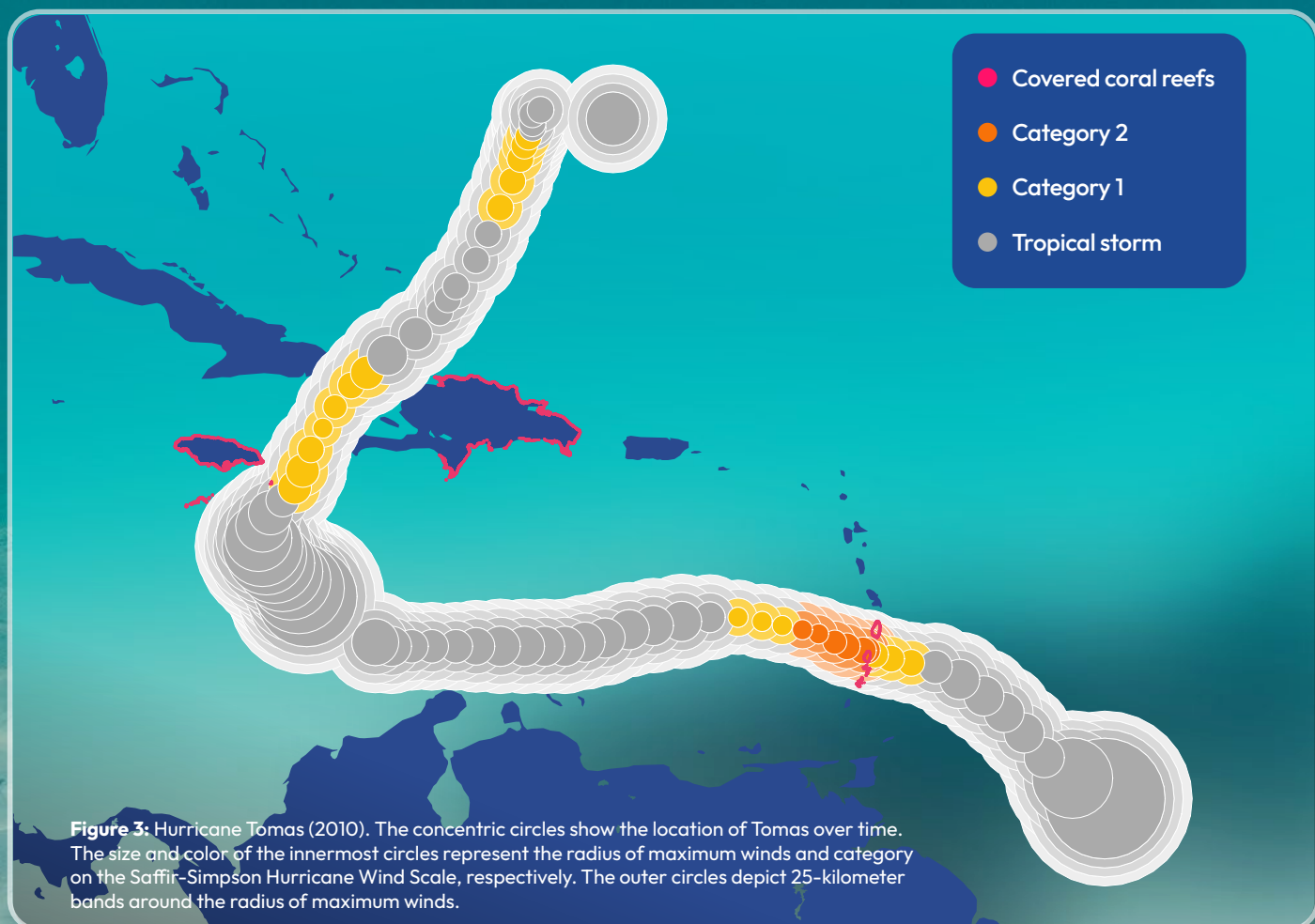
Table 1: The payout matrix specifies the payout amount (in USD) for each given hurricane in each covered country, depending on the hurricane category and the distance of the hurricane’s maximum winds from the coral reefs of each covered country. Payouts are calculated separately for each covered country according to this matrix, meaning that a single hurricane could trigger multiple payout amounts, if it exceeds relevant payout thresholds in multiple countries.

Distance of the hurricane’s radius of maximum winds from the coral reefs of a covered country

Hurricane category	Between 50–75 km from any coral reef	Between 25–50 km from any coral reef	Up to 25 km from any coral reef	Directly over any coral reef
1	\$0	\$0	\$50,000	\$80,000
2	\$0	\$50,000	\$80,000	\$110,000
3	\$50,000	\$80,000	\$110,000	\$150,000
4	\$80,000	\$110,000	\$150,000	\$150,000
5	\$110,000	\$150,000	\$150,000	\$150,000

Illustrative payout calculation

In 2010, Hurricane Tomas reached category 2 status on the Saffir–Simpson Hurricane Wind Scale as its radius of maximum winds passed directly over the reefs of Saint Vincent and within 25 kilometers of the southern reefs of Saint Lucia. Tomas then tracked northeast and reached category 1 status as its radius of maximum winds passed within 25 kilometers of the reefs of Jamaica’s Morant Cays and Bank. After passing through the Windward Passage, Tomas weakened to a Tropical Storm and did not track near the Dominican Republic at Hurricane status (Figure 3).



If the current Caribbean reef insurance policy had been in place in 2010, Tomas would have triggered a total payout of USD 240,000 (Table 2).

Table 2: Illustrative payout calculation for Hurricane Tomas (2010), had the 2026–2027 Caribbean reef insurance policy been in place.

Country	Intensity	Size + Location	Payout
Saint Vincent and the Grenadines	Category 2	Radius of maximum winds directly over the reef	\$110,000
Saint Lucia	Category 2	Radius of maximum winds within 25km of the reef	\$80,000
Jamaica	Category 1	Radius of maximum winds within 25km of the reef	\$50,000
Total payout			\$240,000

Historical payout performance

If the current Caribbean reef insurance policy had been continually in place since 2005, 14 different hurricanes would have triggered a cumulative payout amount of USD 1,870,000 (Figure 4).

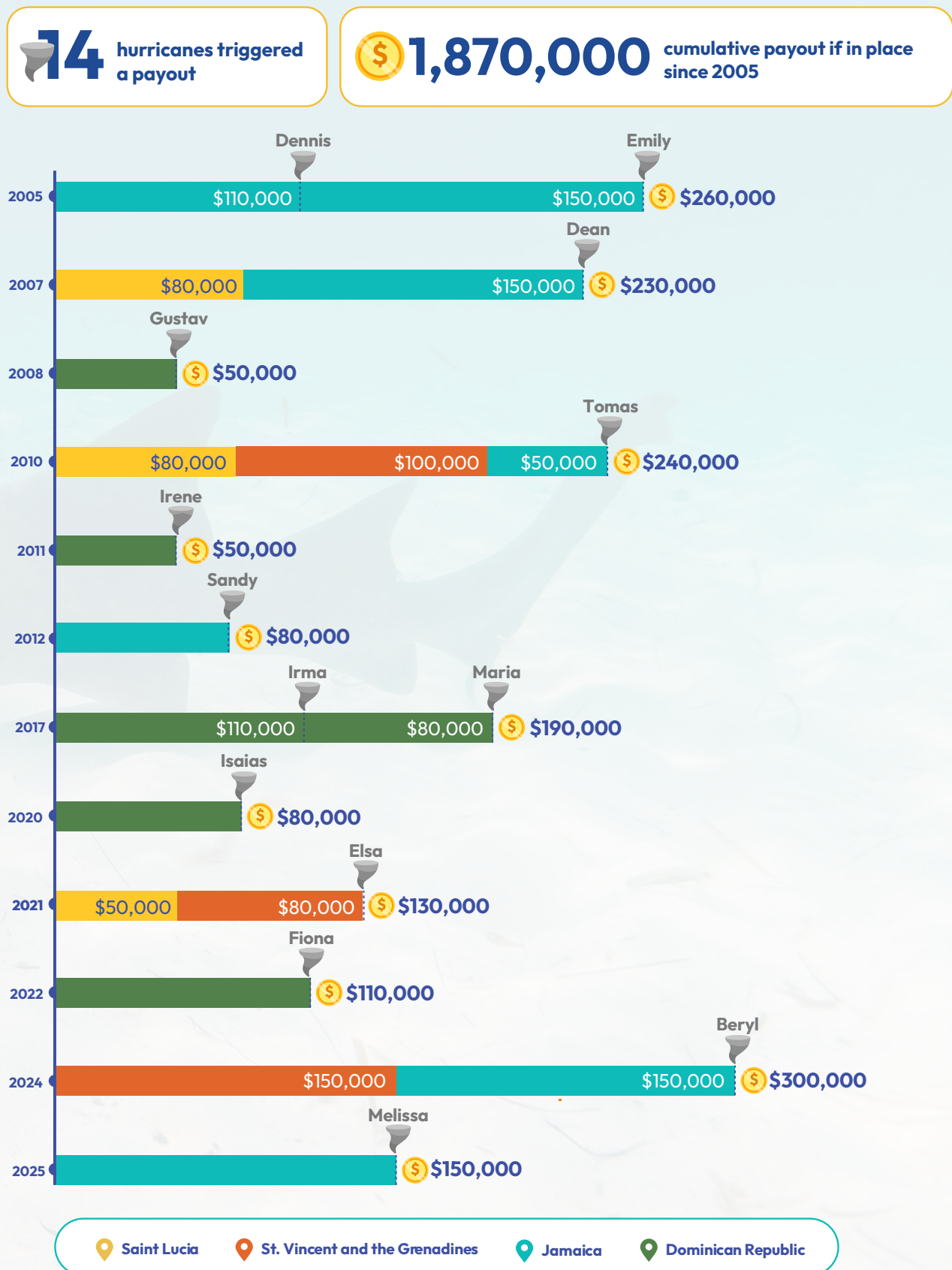


Figure 4: Historical payouts if CBF's 2026–2027 regional reef insurance policy had been in place for the period 2005–2025, in USD.

SCOPE AND AMBITION

The 2026–2027 policy is a first-year pilot. Its primary purpose is to demonstrate that parametric insurance can be effectively applied to reef conservation in the Caribbean island context. Accordingly, the current coverage is modest. USD 100,000 in annual premium supports up to USD 1,000,000 in annual payouts across four countries, which is limited relative to the scale of hurricane risk facing Caribbean reefs. The current payout matrix also reflects this constraint.

CBF is actively fundraising to increase the premium available for subsequent policy years. We are aiming to expand coverage limits and the payout matrix for the pilot countries from next year. After the pilot phase, we will also explore increasing the number of countries that can be covered. The ultimate ambition is a validated, scalable, and sustainable financing model to close the funding gap after hurricane damage to all Caribbean reefs, protecting the coastal communities, fisheries, and tourism economies that depend on them across the region.

2026–2027

USD
100K
premium

→

USD
1M
limit

Across 4 countries

Next years

**Expand
coverage**

After pilot

**More
countries
covered**

Ultimate goal

**Scalable model
for all Caribbean
reefs**

IMPACT AND SIGNIFICANCE

Caribbean coral reefs underpin coastal protection, food security, and thriving blue economies across the region, yet they are undervalued, underfinanced, and in existential crisis. Just like the coasts that they protect, coral reefs are at risk, with hurricane impacts threatening all who depend on these vital natural assets for security and prosperity. Swift clean-up, coral stabilization, and restoration following a damaging event have been shown to have positive impacts on coral survival and recovery, and therefore reef health. But as the climate changes, the funding gap between storm impacts and reef response is widening.

Conservation is largely funded through time-limited grants tied to specific projects and outcomes. That model works well for planned, predictable work, but hurricanes are variable and sudden shock events. Damage is unpredictable but immediate, while resources are tied up. Reallocating existing program budgets for response can derail priorities that took years to build; emergency fundraising after a disaster is slow, resource intensive, and unreliable. This parametric reef insurance program fills that gap, guaranteeing dedicated funding is available for reef response when it is needed, without competing with ongoing conservation work or waiting for donors to respond.

The program also supports enhanced institutional capacity across the Caribbean. By designing and implementing a shared response framework in advance of storms, CBF and national partners are strengthening their shock-responsive planning, inter-institutional coordination, and in-the-water response capabilities, assets that will endure regardless of whether a payout is triggered in any given year.

The Caribbean reef insurance program is part of the Caribbean Reef Response and Resilience Initiative, currently implemented through the Reef Resilience and Risk Financing Mechanisms (R3FM) project. Implementation is led by the Caribbean Biodiversity Fund (CBF), in collaboration with the national conservation trust funds in the Dominican Republic, Jamaica, Saint Lucia, and Saint Vincent and the Grenadines. Technical support is provided by WTW, a leading global, advisory, broking and solutions company, and the MAR Fund, which brings regional experience from similar reef insurance and recovery programmes.

Financial support for the R3FM project is provided by a group of international partners, including German Cooperation through KfW, the InsuResilience Solutions Fund, the Ocean Risk and Resilience Action Alliance (ORRAA) with the financial support of the Government of Canada through the Federal Department of Environment and Climate Change, the Global Environment Facility (implemented through UNEP), the Agence Française de Développement (AFD) and the French Facility for Global Environment (FFEM), and Global Affairs Canada.



KfW

