

# World Bank Catastrophe Bond provides Jamaica with Financial Protection against Tropical Cyclones

The World Bank issued a catastrophe bond (cat bond) that provides the Government of Jamaica with US\$185 million insurance cover for three hurricane seasons ending in December 2023.

The cat bond complements Jamaica's portfolio of disaster risk financing instruments increasing its financial resilience against disasters.

## Background

Jamaica is highly exposed to natural disasters, with hurricanes and earthquakes posing threats to Jamaicans and their macroeconomic outlook. Natural disasters have cost Jamaica an estimated US\$1.2 billion between 2001 and 2010. The damages and losses from Hurricane Ivan in 2004 alone exceeded US\$350 million. The Government of Jamaica (GoJ) is implementing a strategy that aims to provide Jamaica with 360-degree resilience to natural disasters. This includes reforms covering financial, physical, and social resilience and is supported by the World Bank (WB) through various financing instruments and technical assistance.

While the GoJ has been improving its financial resilience through pre-arranged funding for post-disaster activities, existing disaster risk financing instruments (a contingency fund, contingent credit, and catastrophe insurance from the Caribbean Catastrophe Risk Insurance Facility (CCRIF)) are insufficient and leave Jamaica with large financing gaps particularly for tropical cyclone events.

## Financial and Project Objectives

- Increase financial resilience against tropical cyclones without increasing sovereign debt.
- Provide access to quick disbursing and cost-effective insurance from the capital markets.



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- Design a granular CAT-in-a-grid trigger structure for the island of Jamaica.
- Optimize the insurance cover for Jamaica with limited funding.

## Financial Solution

In July 2021, the WB issued to capital market investors a cat bond that provides the GoJ with US\$185 million of insurance cover for tropical cyclone events for the 2021, '22 and '23 hurricane seasons.

The GoJ with financial support from the UK and Germany funded Global Risk Financing Facility (GRiF) and the United States Agency for International Development (USAID) pays a premium for the cover, which the WB transfers to the cat bond investors. The premium is fixed during the life of the bond, removing the uncertainty of the cost.

The type of events that will trigger a payout were pre-defined during the structuring of the transaction based on the requirements of Jamaica. If a qualifying event occurs, Jamaica will issue a notice to the independent calculation agent (AIR Worldwide) who will determine the payout amount based on the central pressure and track of the cyclone.

The WB will transfer the payouts to the GoJ as soon as a calculation report is available, within weeks of a tropical cyclone event, without the need to assess real losses incurred by the country.

## Outcome

The GoJ is the first government in the Caribbean region, and the first of any small island state, to independently sponsor a cat bond. Jamaica was one of the sixteen countries in the CCRIF that benefitted from IBRD's first ever cat bond in 2014.

This transaction includes an innovative reporting feature resulting in a quick payout calculation, within weeks of a tropical cyclone event. It is also the first cat bond to use a cat-in-a grid parametric trigger design for tropical cyclone risk.

The bond was issued under the WB's "Capital at Risk" Notes program, which can be used to transfer risks related to natural disasters and other risks from developing countries to the capital markets. The cat bond attracted 21 investors globally. The investor distribution was as follows:

| Geographic Distribution |     | Investor Type       |     |
|-------------------------|-----|---------------------|-----|
| Europe                  | 60% | ILS Fund            | 66% |
| North America           | 24% | Insurer / Reinsurer | 17% |
| Bermuda                 | 15% | Asset Management    | 14% |
| Asia                    | 1%  | Pension Fund        | 3%  |

## World Bank's Role

The cat bond is the latest activity in a longstanding WB engagement on disaster risk management with Jamaica which has included policy actions, investment lending and technical assistance. Prior to engaging in this transaction, the WB supported Jamaica in understanding the financial impact of tropical cyclone and earthquake events and in analyzing the costs and benefits of financing disasters using various disaster risk financing instruments available to and under consideration by Jamaica.

Following a request from Jamaica for a cat bond transaction, the WB managed the preparation, structuring and execution of the cat bond, procuring the external service providers required for the transaction which included Swiss Re and Aon Securities as lead managers and AIR Worldwide as risk modeling firm and event calculation agent as well as external counsel and listing agent.

The WB was able to secure donor grants for Jamaica from both GRIF and USAID, which were used to finance cat bond premium and transaction costs and ultimately maximize the potential payouts for Jamaica. While the WB has issued many cat bonds for countries, this is the first cat bond financed using an Investment Project Financing (IPF) instrument, with the GRIF grant financing the IPF project.

## Transaction Structure



## Transaction Summary

|                                    |   |
|------------------------------------|---|
| <b>Peril</b>                       | Tropical Cyclones   |
| <b>Principal (Coverage Amount)</b> | US\$185 million   |
| <b>Risk Period</b>                 | 2.4 years (24 July 2021 to 21 Dec 2023)   |
| <b>Trigger Type</b>                | Parametric CAT-in-a-grid  |
| <b>Payout Structure</b>            | Linear sliding scale based on severity of storm with a minimum payout of 30% of principal and maximum payout of 100% of principal |
| <b>Risk Statistics (Annual)</b>    | Expected Loss: 1.52%, Attachment Probability 2.37%  |
| <b>Price/ Premium Multiple</b>     | Risk Margin: 4.4%   |

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