COUNTRYDISASTER RISK PROFILES WORLD BANK GROUP

BARBADOS Hurricanes and Earthquakes RISK PROFILE

What is a country disaster risk profile?

An estimation of the potential economic losses to property caused by adverse natural hazards.

Country Disaster Risk Profile Applications

- **Inform** disaster risk financing
- **Develop** key baseline data
- **Evaluate** impact of disasters
- **Promote and inform** risk reduction

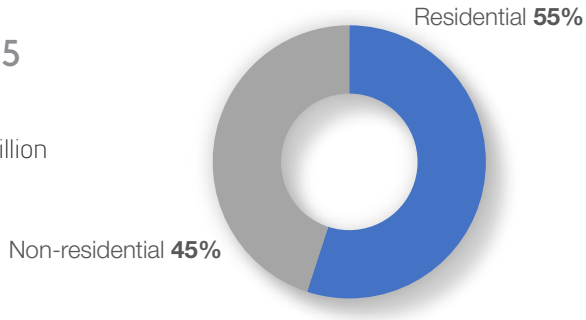
Country At-A-Glance

GDP US$ (2019): 5.2 billion

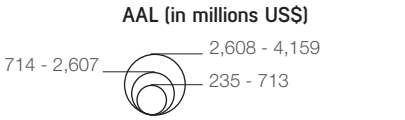
Population (2020 est.): 287,025

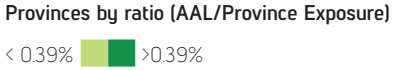
Replacement Value of Building Exposure (in 2019) US$: 13.5 billion

Gross Capital Stock



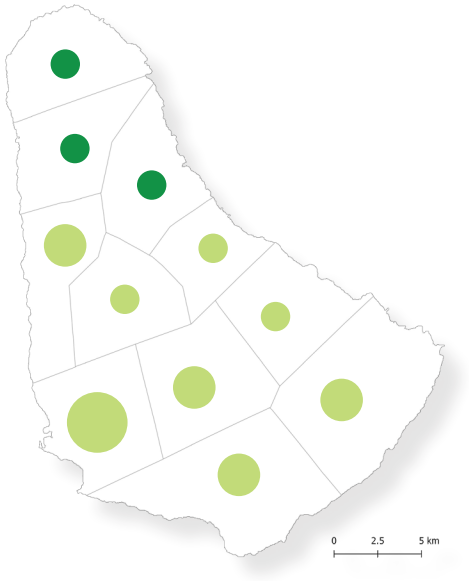
Two representations of hurricane risk





Absolute Risk: The larger the circle, the higher the Annual Average Losses that the province could potentially incur over the long term.

Relative Risk: The darker the color, the higher the ratio of AAL/Province Exposure. The Parish of St Lucy has a higher proportion of vulnerable structures due to construction types and/or potentially higher hurricane intensity.



Snapshot

- The **hurricane risk** in Barbados is **more significant** than the **earthquake risk**.
- Annual Average Loss (AAL) from **hurricanes** is **US$ 48M (0.9% of GDP)** and from **earthquakes** is **US$ 13M (0.3% of GDP)**.
- The Probable Maximum Loss for **hurricanes** (250 year return period) is **US$ 2.5B (47.8% of GDP)** and for **earthquakes** (250 year return period) is **US$ 783M (15% of GDP)**.

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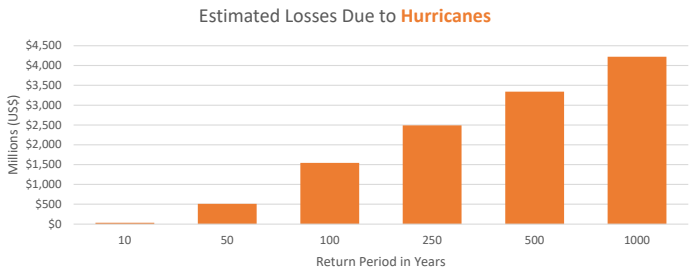
What is at risk?

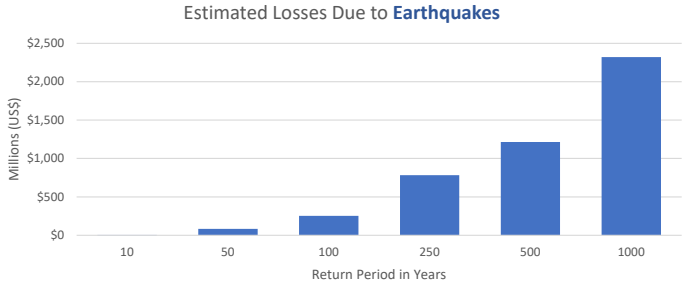
Economic assets such as residential and nonresidential buildings are at risk. These assets that are exposed to natural hazards are referred to as a country's **Building Exposure**.

The map provides the value of residential and non-residential buildings in each province at risk from hurricanes and earthquakes.

What are the potential future losses?

These charts show the estimated potential future losses to Barbados that could be caused by hurricanes and earthquakes that could occur within a given return period. This is the first step needed to quantify contingent liability. Next steps include determining its impact on budgetary appropriation, which would directly inform the development of the disaster risk financing strategy.

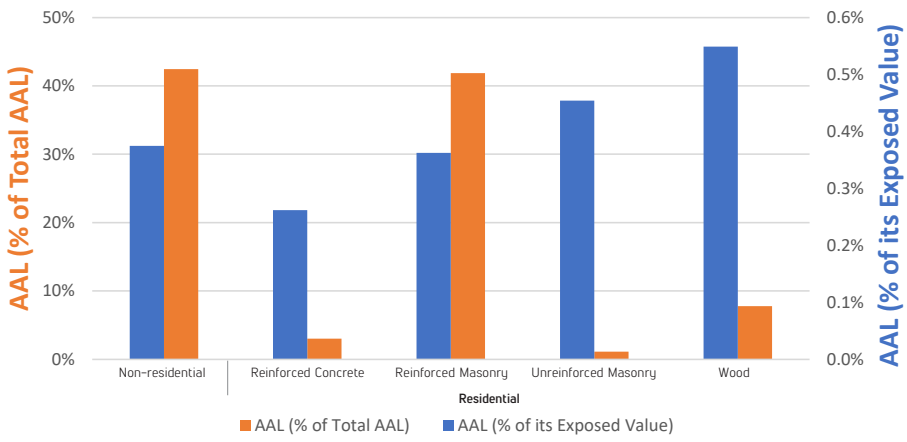




How can hurricane risk be reduced?

Wooden buildings are the most vulnerable to **hurricanes**, and Reinforced Concrete buildings are the least vulnerable. Hurricane risk can be reduced by upgrading wooden buildings.

This chart shows the contribution of each structural type to the overall AAL (in orange). It also shows how vulnerable each roof type is, by showing each roof type's AAL as a proportion of its exposure (in blue).



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