

BONAIRE 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

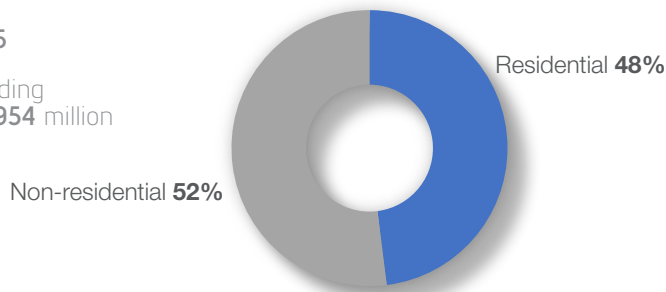
Country At-A-Glance

GDP US\$ (2018): **499** million

Population (in 2019): **20,915**

Replacement Value of Building Exposure (in 2018) US\$: **2,954** million

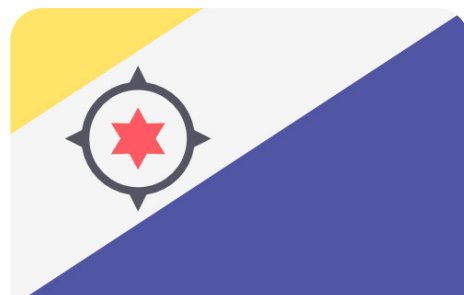
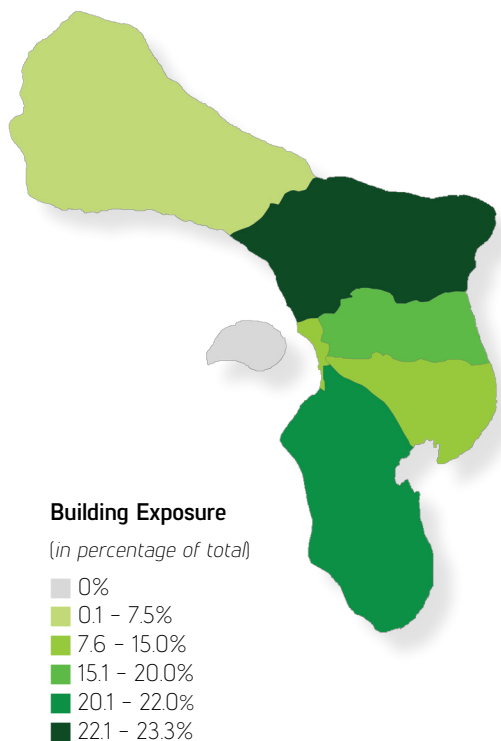
Gross Capital Stock



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 highlights the relative values of residential and non-residential buildings by zones that are at risk from hurricanes and earthquakes.



Snapshot

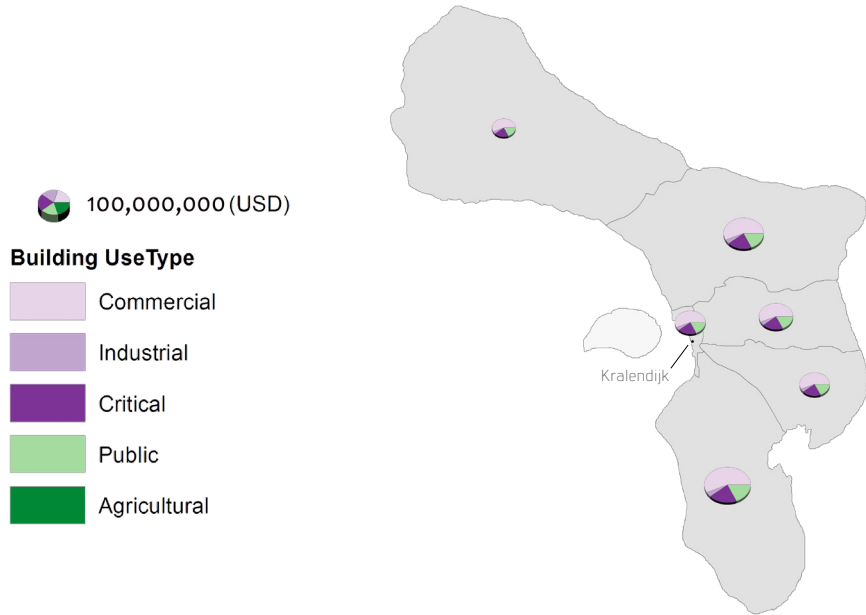
▷ The **hurricane risk** in Bonaire is **more significant** than the **earthquake risk**.

▷ Annual Average Loss (AAL) from **hurricanes** is **US\$ 0.99M (0.2% of GDP)** and from **earthquakes** is **US\$ 0.1M (0.02% of GDP)**.

▷ The Probable Maximum Loss for **hurricanes** (250 year return period) is **US\$ 62M (12.4% of GDP)** and for **earthquakes** (250 year return period) is **US\$ 22M (1.2% of GDP)**.

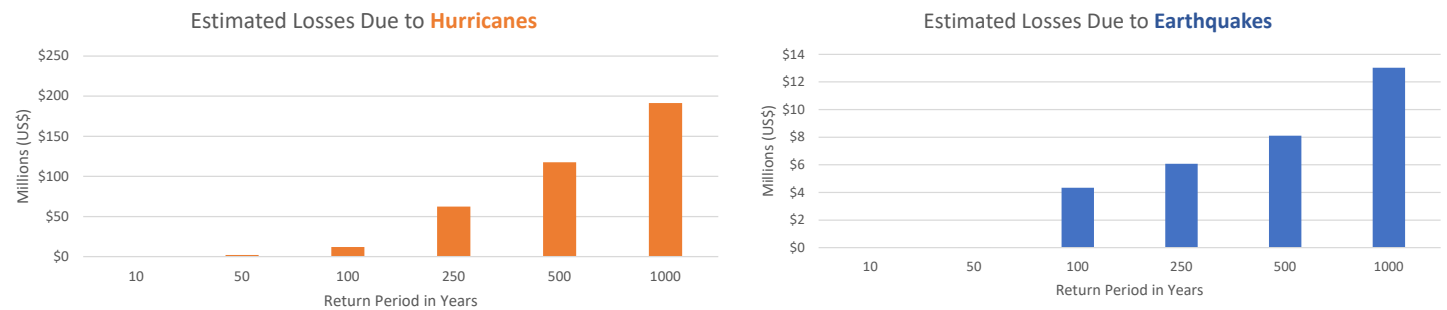
How are non-residential buildings distributed by use-class?

Bonaire has a highly-developed commercial sector due to tourism. As such, the Commercial sector accounts for 56% of non-residential buildings (by value).



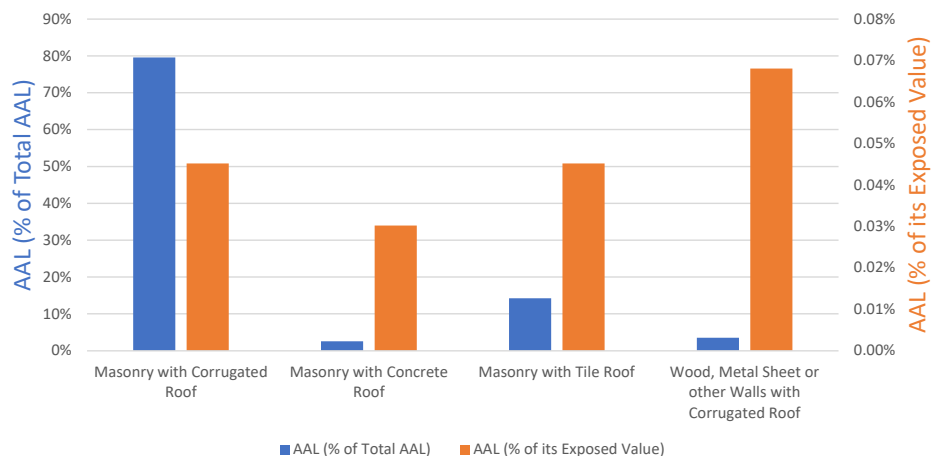
What are the potential future losses?

These charts show the estimated potential future losses to Bonaire that could be caused by earthquakes and hurricanes 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?

Masonry structures with corrugated roofs are the most prevalent residential building types in Bonaire, accounting for just under 80% of the residential AAL for hurricane risk. However structures with wood, metal sheets or other walls and corrugated roofs are the riskiest construction types for hurricane.



COUNTRYDISASTER RISK PROFILES

BONAIRE

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