

# COSTA RICA Earthquakes and Hurricanes 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

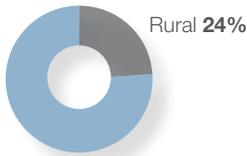
#### Applications

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

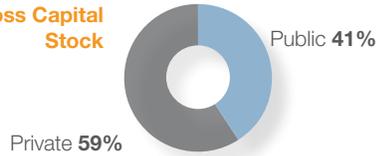
## Country At-A-Glance

GDP US\$ **49.6 billion** | Population **4.9 million** | Total Building Exposure US\$ (Replacement Value) **80.1 billion**

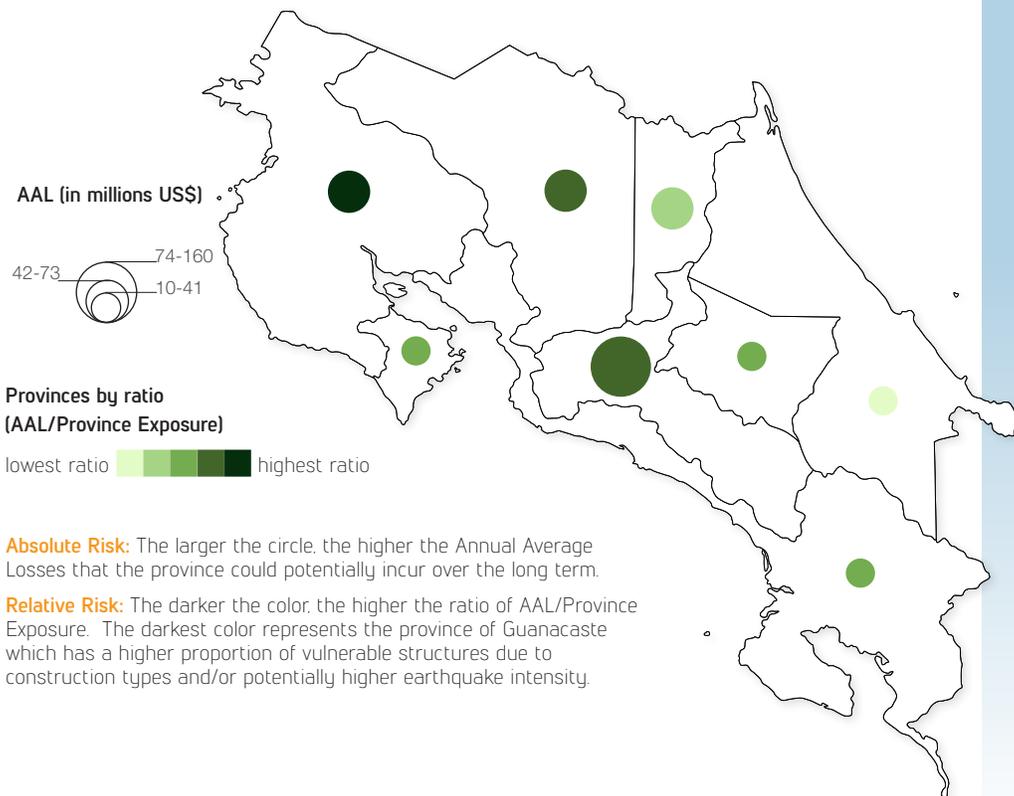
#### Population



#### Gross Capital Stock



## Two representations of earthquake risk



### Snapshot

- ▶ The **earthquake risk** in Costa Rica is **more significant** than the **hurricane risk**.
- ▶ Annual Average Loss (AAL) from **earthquakes** is **US\$ 407.5M (0.82% of GDP)** and from **hurricanes** is **US\$ 0.25M (0.001% of GDP)**.
- ▶ The Probable Maximum Loss for **earthquakes** (250 year return period) is **US\$ 9.7B (20% of GDP)** and for **hurricanes** (250 year return period) is **US\$ 22.6M (0.05% of GDP)**.
- ▶ Single-family, residential houses constructed with reinforced masonry bearing walls are the buildings most vulnerable to **earthquakes**, **accounting for over 70% of AAL**.

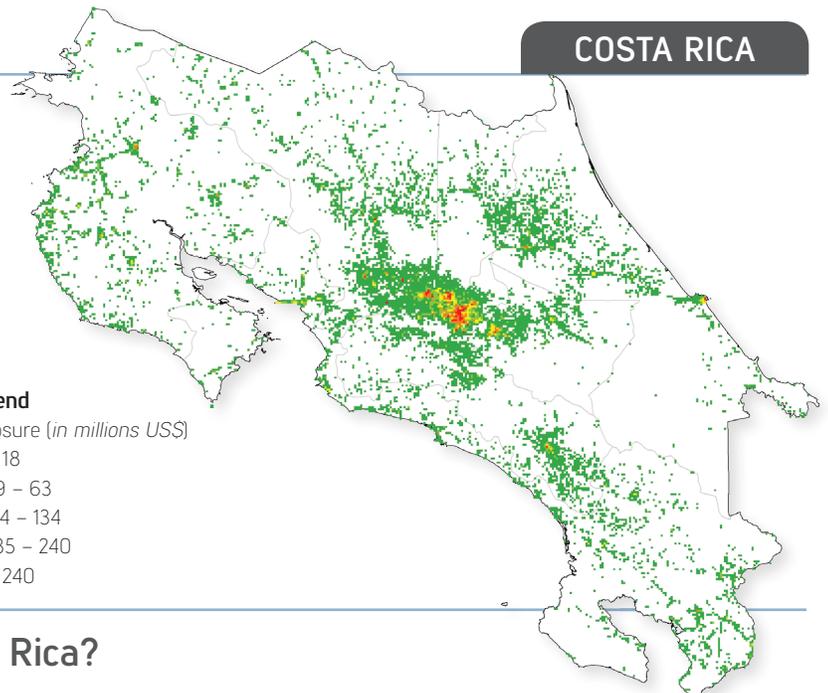
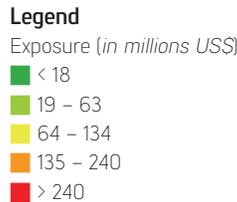
# COUNTRYDISASTER RISK PROFILES

COSTA RICA

## What is at risk in Costa Rica?

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

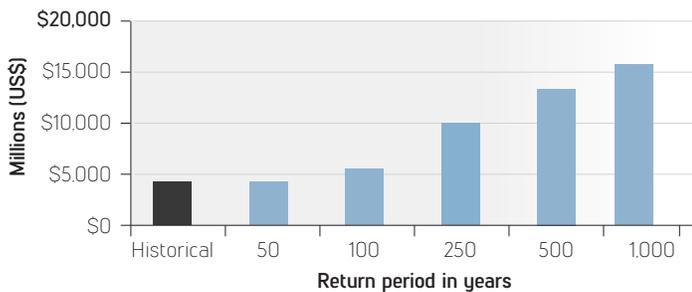
The map illustrates the value and distribution of residential and non-residential buildings in Costa Rica at risk from earthquakes and hurricanes.



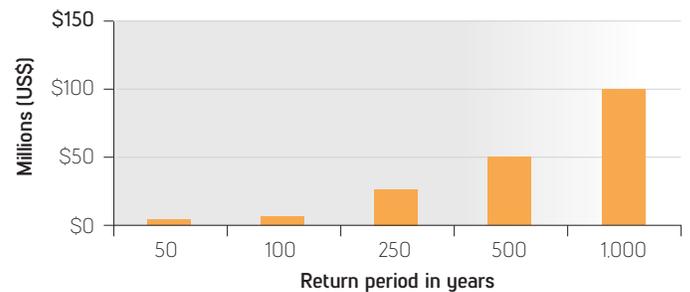
## What are the potential losses in Costa Rica?

These charts show the estimated potential future losses to Costa Rica that could be caused by earthquakes and hurricanes that could occur within a given return period. In 1910, a magnitude 6.5 earthquake struck Costa Rica. If this historical event were to happen in 2015, it would cause losses of US\$ 3.800M, amounting to 8% of GDP.

Estimated Losses Due to **EARTHQUAKES**

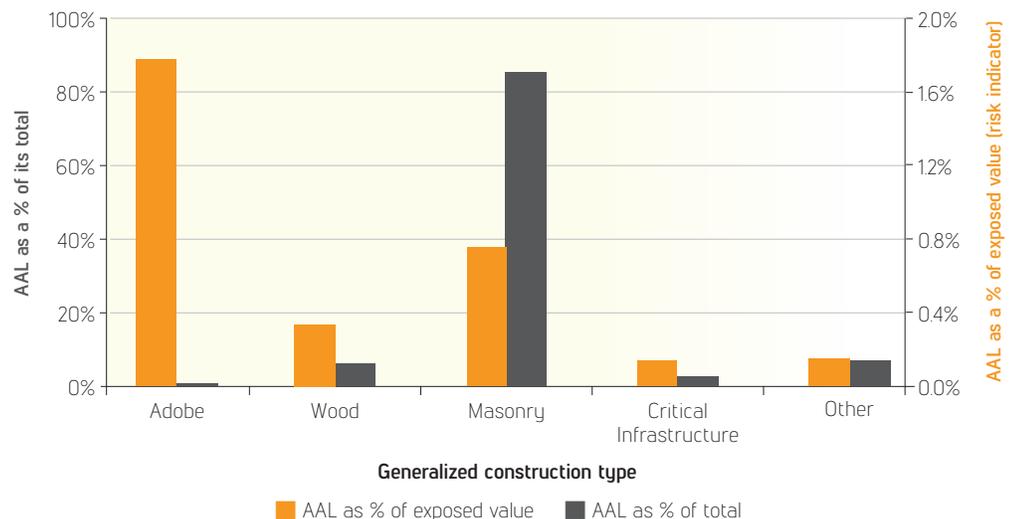


Estimated Losses Due to **HURRICANES**



## How can earthquake risk be reduced?

Masonry structures are the most prevalent building types in Costa Rica, accounting for over 80% of AAL. Adobe structures, however, are the riskiest construction types.



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