

# PACIFIC RISK PROFILE PAPUA NEW GUINEA



## Basic Country Statistics

Maximum Height Above Sea-level

**4,509 m**

Pacific Community (SPC) at <https://www.spc.int/our-members/>

Land Area

**462,840 km<sup>2</sup>**

Pacific Community (SPC) at <https://www.spc.int/our-members/>

Number of Volcanoes & Per cent of Population at Volcanic Risk

**56 volcanoes**

↳ **17%**

People live within 30 km of volcanoes

UNDRR (2015) Global Assessment Report Country Risk Profile at <https://www.preventionweb.net/english/hyogo/gar/2015/en/home/data.php>

Per cent of Urban Population

**13%**

SPC Pocket Statistical Summary 2020 at [https://sdd.spc.int/digital\\_library/pocket-statistical-summary-resume-statistique-de-poche-2020](https://sdd.spc.int/digital_library/pocket-statistical-summary-resume-statistique-de-poche-2020)

Per cent of Coastal Population

**8%**

People live within 1 km of the coast

**21%**

People live within 5 km of the coast

**30%**

People live within 10 km of the coast

SPC Statistics (Map) at <https://sdd.spc.int/mapping-coastal-de-poche-2020>



**Total Population**  
(2020 Estimate)

**8,934,474**  
persons



**Total Male & Female Population**  
(2020 Estimate)

**Male**  
**4,604,071**  
persons or 51.53%

**Female**  
**4,330,403**  
persons or 48.47%

SPC Statistics (Population) at <https://sdd.spc.int/topic/population>

**Gross Domestic Product (GDP) per Capita**

**US\$2,854**  
(2019)

SPC Pocket Statistical Summary 2020 at [https://sdd.spc.int/digital\\_library/pocket-statistical-summary-resume-statistique-de-poche-2020](https://sdd.spc.int/digital_library/pocket-statistical-summary-resume-statistique-de-poche-2020)



**Disability Prevalence**  
**13.4%**

UNESCAP (2019) Disability at a Glance at <https://www.unescap.org/publications/disability-glance-2019>

**Women's Labour Force Participation Rate**

**62%**

ADB (2016) Gender Statistics for the Pacific and Timor-Leste at <https://www.adb.org/publications/gender-statistics-pacific-and-timor-lesle>

**Per cent of Children, Youth and Elderly**

**Children (<14)**  
**37%**

**Youth (15-24)**  
**19%**

**Elderly (60+)**  
**5%**



**Population Density**

**19** persons/km<sup>2</sup>

SPC Pocket Statistical Summary 2020 at [https://sdd.spc.int/digital\\_library/pocket-statistical-summary-resume-statistique-de-poche-2020](https://sdd.spc.int/digital_library/pocket-statistical-summary-resume-statistique-de-poche-2020)

Pacific Risk Profile is a snapshot of climate and disaster risk information that is collected from credible open data sources. It is intended to provide DFAT program managers and implementing partners with easy access to essential risk information. When employing risk information in specific program contexts, however, it is strongly encouraged to study the original risk information sources or even undertake proper risk assessments.

For more information or other technical support, you may contact the Australia Pacific Climate Partnership Support Unit at [helpdesk@apclimatepartnership.com.au](mailto:helpdesk@apclimatepartnership.com.au).

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# Hazard Likelihood



**Earthquake**  
High Likelihood



**Volcano**  
High Likelihood



**Landslide**  
High Likelihood



**Cyclone**  
High Likelihood



**Coastal Flood**  
High Likelihood



**Wildfire**  
High Likelihood



**Water Scarcity**  
Very Low Likelihood



**Tsunami**  
High Likelihood

### Legend

Very low Medium  
Low High

ThinkHazard! at  
<https://thinkhazard.org/en/report/192-papua-new-guinea>

# Economic Loss Due to Disasters

Total Average Annual Losses (AAL)  
**US\$295 million**

UNESCAP (2020) The Disaster Riskscape across the Pacific Small Island Developing States at <https://www.unescap.org/sites/default/files/00-APDR-Subreport-Pacific-SIDS.pdf>

AAL as a Percentage of GDP  
**1.61%**

UNESCAP (2020) The Disaster Riskscape across the Pacific Small Island Developing States

# Risk Index

## World Risk index

**Papua New Guinea is ranked 8th among the countries with the highest disaster risk.**

Exposure - Very High  
Vulnerability - Very High  
Susceptibility - Very High  
Lack of Coping Capacities - Very High  
Lack of Adaptive Capacities - Very High

World Risk Report 2020 at <https://reliefweb.int/sites/reliefweb.int/files/resources/WorldRiskReport-2020.pdf>

## Climate Risk Index for 1999-2018

**Between 1999 and 2018, Papua New Guinea was the 98th country most affected by extreme weather events.**

Global Climate Risk Index 2020 at <https://www.germanwatch.org/en/17307>



## INFORM Covid-19 Risk

Papua New Guinea's risk level is high when assessing the potential humanitarian impacts of Covid-19 in combination with other pre-existing crisis risks.

INFORM Covid-19 Warning (beta version) at <https://dmkc.jrc.ec.europa.eu/inform-index/INFORM-Covid-19/INFORM-Covid-19-Warning-beta-version>

# Major Disasters 2011-2020

Per cent of Disaster Type  
(Major Disasters 2011-2020)



12%  
Storm



30%  
Flood



15%  
Earthquake



12%  
Volcano



4%  
Drought



15%  
Landslide



12%  
Transport Accident



Total Population  
Affected

3,447,766  
persons

Total Damage

US\$148 million



Number of Major  
Cyclones in 2011-2020

3

EM-DAT Database (February 2021) at <https://www.emdat.be/>

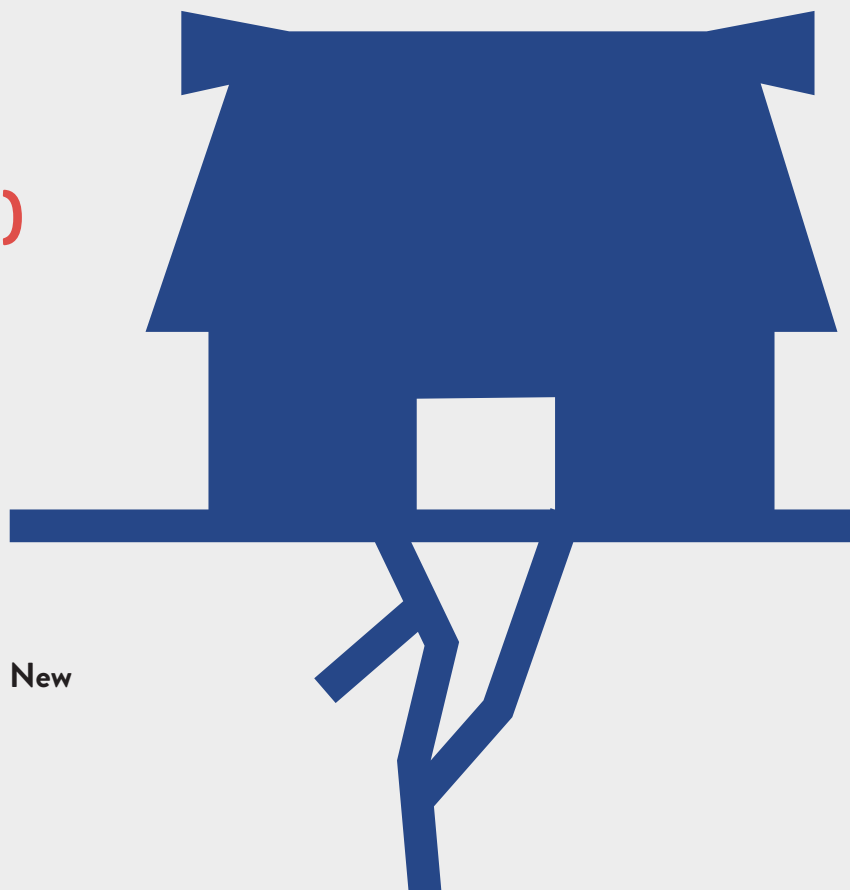
## HIGHLAND EARTHQUAKE (2018)

On 26 February 2018, a M7.5 earthquake took place in the Highlands of Papua New Guinea affecting more than

544,000  
people

The initial damage from the earthquake in Papua New Guinea's Hela Province alone is more than

US\$61 million



# Climate Projection



## Cyclone

Tropical cyclones are projected to be less frequent but more intense.

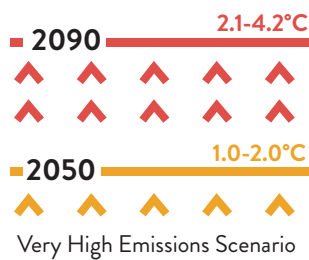


## Rainfall

Average rainfall is projected to increase in most areas, along with more extreme rain events.

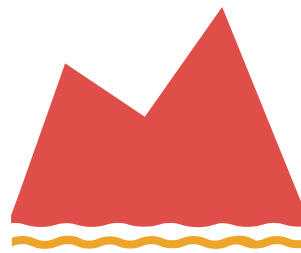
## Temperature

Annual mean temperatures and extremely high daily temperatures will continue to rise.



## Sea-level Rise

Sea level is expected to continue to rise.



## Ocean Acidification



Ocean acidification is expected to continue.

## El Niño / La Niña



## Coral Bleaching Risk



The risk of coral bleaching is expected to increase.

El Niño and La Niña events will continue to occur in the future.

Generally in Papua New Guinea **El Niño** years are usually **drier than normal** while **La Niña** events are **usually wetter**. The dry season at Port Moresby is cooler than normal in El Niño years and warmer than normal in La Niña years, while the wet season tends to be warmer and drier than normal during an El Niño event.