# PACIFIC RISK PROFILE – PAPUA NEW GUINEA

## COUNTRY OVERVIEW

* [**4509 m**](https://www.spc.int/our-members/) maximum height above sea level
* [**462,840 km²**](https://www.spc.int/our-members/) land area and [**19**](https://sdd.spc.int/digital_library/pocket-statistical-summary-resume-statistique-de-poche-2020) people per km²
* [**56 volcanoes and 17%**](https://www.preventionweb.net/english/hyogo/gar/2015/en/home/data.php) of people live within 30km of volcanoes
* [**13%**](https://sdd.spc.int/mapping-coastal) population is urban
* [**8%**](https://sdd.spc.int/mapping-coastal) of population live with 1km of coast, [**21%**](https://sdd.spc.int/mapping-coastal) live within 5km of coast, and [**30%**](https://sdd.spc.int/mapping-coastal) live within 10km of coast
* [**8,934,474**](https://sdd.spc.int/topic/population) total population
* [**4,604,071**](https://sdd.spc.int/topic/population)  (51.53%) men and [**4,220,403**](https://sdd.spc.int/topic/population) women (48.47%) in 2020
* [**37%**](https://sdd.spc.int/digital_library/pocket-statistical-summary-resume-statistique-de-poche-2020) of population is 14 or younger, [**19%**](https://sdd.spc.int/digital_library/pocket-statistical-summary-resume-statistique-de-poche-2020) is 15-24 years and [**5%**](https://sdd.spc.int/digital_library/pocket-statistical-summary-resume-statistique-de-poche-2020) is 60 years and older
* [**13.4%**](https://www.unescap.org/publications/disability-glance-2019) disability prevalence
* [**$2854**](https://sdd.spc.int/digital_library/pocket-statistical-summary-resume-statistique-de-poche-2020) USD gross domestic product per capita
* [**62%**](https://www.adb.org/publications/gender-statistics-pacific-and-timor-leste) women’s labour force participation.

## HAZARD LIKELIHOOD

(link: [**https://thinkhazard.org/en/report/192-papua-new-guinea**](https://thinkhazard.org/en/report/192-papua-new-guinea))

| **Water scarcity** | **Volcano** | **Earthquake** | **Landslide** | **Cyclone** | **Coastal flood** | **Wildfire** | **Tsunami** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Very low likelihood | High likelihood | High likelihood | High likelihood | High likelihood | High likelihood | High likelihood | High likelihood |

## ECONOMIC LOSS DUE TO DISASTERS

* [**$295m**](https://www.unescap.org/sites/default/d8files/IDD-APDR-Subreport-Pacific-SIDS.pdf) USD total average annual loss due to disasters, which is [**1.61%**](https://www.unescap.org/sites/default/d8files/IDD-APDR-Subreport-Pacific-SIDS.pdf) of GDP.

## RISK INDEX

* [**Papua New Guinea is ranked 8th**](https://reliefweb.int/sites/reliefweb.int/files/resources/WorldRiskReport-2020.pdf)among countries with high disaster risk due to high exposure to extreme natural events and sea-level rise
  + Exposure – very high
  + Vulnerability – very high
  + Susceptibility – very high
  + Lack of coping capacities – very high
  + Lack of adaptive capacities – very high
* Between 1999 and 2018 [**Papua New Guinea was ranked 98th**](https://www.germanwatch.org/en/17307) among countries most affected by extreme weather
* Papua New Guinea’s risk level is [**high**](https://drmkc.jrc.ec.europa.eu/inform-index/INFORM-Covid-19/INFORM-Covid-19-Warning-beta-version) when assessing the potential humanitarian impacts of COVID-19 in combination with other pre-existing crisis risks.

## MAJOR DISASTERS 2011-2020

(link: [**https://www.emdat.be/**](https://www.emdat.be/))

* **3** major cyclones
* **3,447,766** people affected
* **$148m** USD total damage
* **30%** of disasters were floods, **15%** were earthquakes, **15%** were landslide, **12%** were storms, **12%** were volcanos, **12%** were a transport accident and **4%** were drought.

## HIGHLAND EARTHQUAKE (2018)

(link: [**https://www.rnz.co.nz/international/pacific-news/354087/png-pm-says-hela-quake-damage-costs-over-us-61m**](https://www.rnz.co.nz/international/pacific-news/354087/png-pm-says-hela-quake-damage-costs-over-us-61m))

* On 26 February 2018 more than **544,000** people were affected by a M7.5 earthquake which occurred in the Papua New Guinea Highlands
* **$61m** USD estimated initial damage in the Hela Province alone.

## CLIMATE PROJECTION

(link: [**https://www.pacificclimatechangescience.org/wp-content/uploads/2013/06/14\_PACCSAP-PNG-11pp\_WEB.pdf**](https://www.pacificclimatechangescience.org/wp-content/uploads/2013/06/14_PACCSAP-PNG-11pp_WEB.pdf))

* **Rainfall**: average rainfall is expected to increase in most areas, along with more extreme rain events
* **Cyclones**: less frequent but more intense
* **Temperature**: annual mean temperatures and extremely high temperature days will continue to rise
* **Sea level**: expected to continue to rise
* **Ocean acidification**: expected to continue
* **Risk of** **coral bleaching:** expected to increase
* **El Niño/La Niña**: likely to continue, in PNG **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.