

# PACIFIC RISK PROFILE SAMOA



## Basic Country Statistics

**Land Area**  
**2,934 km<sup>2</sup>**

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

**Maximum Height Above Sea-level**  
**1,857 m**

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

**Number of Volcanoes & Per cent of Population at Volcanic Risk**

**2 volcanoes**

**78%**

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**

**18%**

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**

**61%**

People live within 1 km of the coast

**97%**

People live within 5 km of the coast

**100%**

People live within 10 km of the coast

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



**Total Population**  
(2020 Estimate)

**198,656**  
persons



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

**Male**  
**102,356**  
persons or 51.52%

**Female**  
**96,300**  
persons or 48.48%

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

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

**US\$4,284**  
(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)



**Population Density**

**68** 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)



**Disability Prevalence**

**2.2%**

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

**Women's Share of Managerial Positions**

**47.3%**

**Women's Labour Force Participation Rate**

**24%**

**Women's Share of Wage Employment in the Non-agriculture Sector**

**37.5%**

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

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).

Published in July 2021

# Hazard Likelihood



**Earthquake**  
Medium Likelihood



**Volcano**  
Low Likelihood



**Landslide**  
Low Likelihood



**Cyclone**  
High Likelihood



**Coastal Flood**  
Medium Likelihood



**Wildfire**  
Very Low Likelihood



**Tsunami**  
High Likelihood

### Legend

- Very low
- Medium
- Low
- High

ThinkHazard! at <https://thinkhazard.org/en/report/212-samoa>

## Economic Loss Due to Disasters

Total Average Annual Losses (AAL)

**US\$41.51 million**

UNESCAP (2020) The Disaster Riskscape across the Pacific Small Island Developing States at <https://www.unescap.org/sites/default/files/100-APDR-Subreport-Pacific-SIDS.pdf>

AAL as a Percentage of GDP

**5.40%**

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

## Adaptation Costs for Coastal Protection

**US\$7~21 million per year**

or 0~1% of projected GDP in 2040

World Bank (2017) Climate Change and Disaster Management (Pacific Possible Background Paper No.6) at <https://openknowledge.worldbank.org/handle/10986/28137>

## Risk Index

### World Risk index

**Samoa is ranked 98th with the medium disaster risk.**

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

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, Samoa was the 71st country most affected by extreme weather events.**

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



**INFORM Covid-19 Risk**

Samoa's risk level is low 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://drmkc.jrc.ec.europa.eu/inform-index/INFORM-Covid-19/INFORM-Covid-19-Warning-beta-version>

# Major Disasters 2011-2020

Total Population Affected



Total Damage

US\$133 million

Number of Major Cyclones in 2011-2020



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



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

## TC EVAN (2012)

Cyclone Evan caused widespread damage across Samoa, with heavy rainfall and flash floods and maximum sustained winds up to 90 knots (166.7 km/h).



The cyclone killed at least five people and displaced 4,763 people

The total effects of the disaster amount to

**US\$203.9 million** including the value of damage estimated at US\$103.3 million

Per cent of Economic Damage and Loss by Sectors



**37%**  
Infrastructure Sectors  
(transport, water and sanitation, electricity, communications)



**12%**  
Social Sectors  
(education, health, housing)



**35%**  
Productive Sectors  
(agriculture, tourism, commerce)



**16%**  
Cross-Cutting Issues  
(environment, gender and social inclusion, culture, disaster risk reduction, etc.)

# Climate Projection



## Cyclone

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

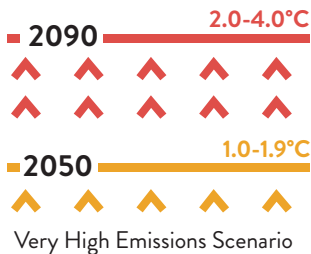


## Rainfall

Little change in mean annual rainfall is projected, with more extreme rain events.

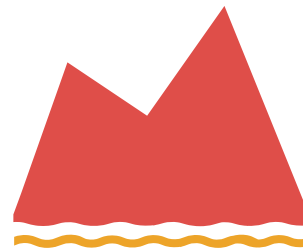
## Temperature

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



## Sea-level Rise

Sea level is expected to continue to rise.

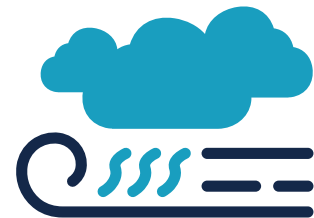


## Ocean Acidification



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.

In Samoa, **El Niño** events tend to bring **wet seasons** that are drier than normal, while **La Niña** events **usually bring wetter** and cooler than normal conditions.