



INDONESIA

PAPUA

NDPBA PROVINCE PROFILE

PAPUA

CAPITAL: JAYAPURA

Area: 319,036 km²



Papua, with the highest mountains in SE Asia, is the largest and easternmost province of Indonesia and has a special autonomous status. Along with Dutch and Japanese occupations, this expansive region with vast natural resources has also grappled with hazards such as earthquakes and challenges in public health capacity building efforts to help increase life expectancy and decrease infant mortality, maternal mortality and malnutrition. With low levels of disaster management capabilities to address high levels of vulnerability and exposure, advances in information access, clean water, energy and communications infrastructure will help ameliorate these challenges in the future.

RISK AND VULNERABILITY COMPONENT SCORE



MULTI-HAZARD RISK (MHR) - Very High

Score: 0.556 • Rank: 4/34



RESILIENCE (R) - Very Low

Score: 0.457 • Rank: 31/34



MULTI-HAZARD EXPOSURE (MHE) - High

Score: 0.593 • Rank: 10/34



VULNERABILITY (V) - Very High

Score: 0.641 • Rank: 1/34



COPING CAPACITY (CC) - Very High

Score: 0.594 • Rank: 3/34



DISASTER MANAGEMENT CAPABILITIES (DMC) - Very Low

Score: 0.417 • Rank: 31/34



Population (2020 Projected)

3,435,400



Population in Poverty

26.6%



Adult Literacy Rate

78.0%



Access to improved water

60.9%



Average life expectancy

65.7 years

*For more information on data and components please visit: <https://bit.ly/2LqVoUO>



MULTI-HAZARD EXPOSURE (MHE)

RANK: 10 / 34 PROVINCES
SCORE: 0.593



MHE
0.593

Raw MHE
0.503

Relative MHE
0.684

ESTIMATED POPULATION AND CAPITAL EXPOSED TO EACH HAZARD:



Earthquake

78%

2,447,159
\$70.5 Billion



Tsunami

4%

120,087
\$5.3 Billion



Flood

28%

877,142
\$24.71 Billion



Flash Flood

2%

66,110
\$1.6 Billion



Landslide

48%

1,496,617
\$39.4 Billion



Volcano

0%

-
-



Drought

13%

406,603
\$12.4 Billion



Wildfire

52%

1,646,252
\$40.5 Billion



Extreme Weather

64%

1,994,847
\$61.5 Billion



VULNERABILITY (V)

RANK: 1 / 34 PROVINCES ASSESSED
SCORE: 0.641

Vulnerability in Papua is primarily driven by Information Access Vulnerability and Clean Water Access Vulnerability. The bar charts indicate the socioeconomic themes contributing to the province's overall Vulnerability score.



Environmental Stress

SCORE: 0.349 RANK: 22/34 PROVINCES ASSESSED

0.6% Land susceptible to severe erosion	2.86 Livestock Density (per sq km)	32846.1 Net Deforestation (hectares per year)
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Vulnerable Health Status

SCORE: 0.534 RANK: 6/34 PROVINCES ASSESSED

65.65 Life expectancy (years)	54 Infant mortality rate (per 1,000 live births)	220.09 Maternal mortality ratio	10.3% Children (under 5) Wasting	8.6% Disability	3.0% Unmet health care needs	40.7% Households with limited access to health facility
0.3% Households with catastrophic health expenditure	5.81 Dengue incidence per 100,000 population	11.77 Measles incidence per 100,000 population	50.62 Malaria incidence per 100,000 population	347 TB case notification per 100,000 population	678.34 HIV & AIDS incidence per 100,000 population	4.51 Prevalence of Leprosy per 10,000 population



Clean Water Vulnerability

SCORE: 0.962 RANK: 1/34 PROVINCES ASSESSED

60.9% Households with improved water	38.3% Households with improved sanitation
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Information Access Vulnerability

SCORE: 1.000 RANK: 1/34 PROVINCES ASSESSED

78.0% Adult literacy rate	79.2% Net primary school enrollment rate	6.65 Average years of schooling	31.3% Household using internet
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Economic Constraints

SCORE: 0.554 RANK: 5/34 PROVINCES ASSESSED

3.7% Unemployment rate	43.7 Age dependency ratio	26.6% Poverty rate	0.394 GINI ratio
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Gender Inequality

SCORE: 0.579 RANK: 6/34 PROVINCES ASSESSED

0.89 Female to male literacy rate	0.69 Female to male labor ratio	0.95 Female to male secondary school enrollment ratio	16.4% Percent female seats in government
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Population Pressures

SCORE: 0.507 RANK: 10/34 PROVINCES ASSESSED

2.0% Average annual total population change	4.4% Average annual urban population change
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COPING CAPACITY (CC)

RANK: 3 / 34 PROVINCES ASSESSED
SCORE: 0.594

Papua exhibits weaker Coping Capacity in the areas of Energy Capacity and Communications Capacity. The bar charts indicate the socioeconomic themes contributing to the province's overall Coping Capacity score.



Economic Capacity

SCORE: 0.741 RANK: 1/34 PROVINCES ASSESSED

76.9% Labor force participation	4,000,706 Average monthly income (IDR)	39.8 GDP per capita (Million IDR)
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Governance

SCORE: 0.697 RANK: 5/34 PROVINCES ASSESSED

224 Crime rate per 100,000 population	62.4% Crime clearance rate	95.8% Voter participation
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Environmental Capacity

SCORE: 0.917 RANK: 2/34 PROVINCES ASSESSED

22.1%
Protected area



Infrastructure Capacity

SCORE: 0.235 RANK: 33/34 PROVINCES ASSESSED



Health Care Capacity SCORE: 0.265 RANK: 32/34 PROVINCES ASSESSED

12.4 Hospital beds per 10,000 people	2.18 Physicians per 10,000 people	12.74 Nurses and midwives per 10,000 people	37.2% Time to public hospital (over 1 hour)	31.1% Immunization rate (children under 5)	20.8% Health care accreditation rate	91.0% Population covered by health insurance
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Transportation Capacity SCORE: 0.322 RANK: 22/34 PROVINCES ASSESSED

0.04 Road and rail density	30.04 Average distance to port or airport
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Communications Capacity SCORE: 0.241 RANK: 33/34 PROVINCES ASSESSED

38.5% Mobile phone ownership	0.5% Households with Fixed Phones
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Energy Capacity SCORE: 0.114 RANK: 33/34 PROVINCES ASSESSED

44.5% Households served by state electricity	0.4% Percentage of total national electricity generated in province	34.3 Electricity generation GWh per 100,000 Population	1.4% Households with gas for cooking
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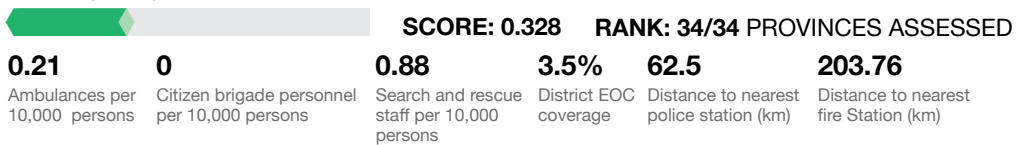
DISASTER MANAGEMENT CAPABILITIES (DMC)

RANK: 31 / 34 PROVINCES ASSESSED
SCORE: 0.594

Papua exhibits weaker Disaster Management Capabilities in the areas of Emergency Services and Early Warning and Monitoring. The bar charts indicate the disaster management themes contributing to the province's overall Disaster Management Capabilities score.



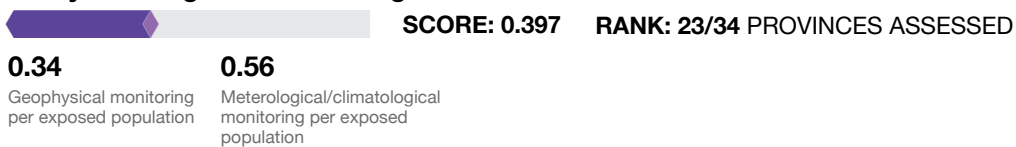
Emergency Services



Mass Care Support



Early Warning and Monitoring





RESILIENCE (R)

RANK: 31 / 34 PROVINCES ASSESSED
SCORE: 0.457

Papua's Very Low Resilience score and ranking are due to Very High Vulnerability combined with Very High Coping Capacity, and Very Low Disaster Management Capabilities scores.

Below are the six thematic areas with the weakest relative scores:



Information Access Vulnerability



Clean Water Access Vulnerability



Energy Capacity



Communications Capacity



Emergency Services



Early Warning and Monitoring



HAZARD-SPECIFIC RISK (HSR)



Earthquake

RANK: 5 / 34 PROVINCES ASSESSED
SCORE: 0.331



Tsunami

RANK: 5 / 34 PROVINCES ASSESSED
SCORE: 0.32



Flood

RANK: 13 / 34 PROVINCES ASSESSED
SCORE: 0.229



Flash Flood

RANK: 13 / 34 PROVINCES ASSESSED
SCORE: 0.217



Landslide

RANK: 1 / 34 PROVINCES ASSESSED
SCORE: 0.408



Volcano

RANK: 19 / 34 PROVINCES ASSESSED
SCORE: 0.162



Drought

RANK: 24 / 34 PROVINCES ASSESSED
SCORE: 0.190



Wildfire

RANK: 1 / 34 PROVINCES ASSESSED
SCORE: 0.387



Extreme Weather

RANK: 32 / 34 PROVINCES ASSESSED
SCORE: 0.187



MULTI-HAZARD RISK (MHR)

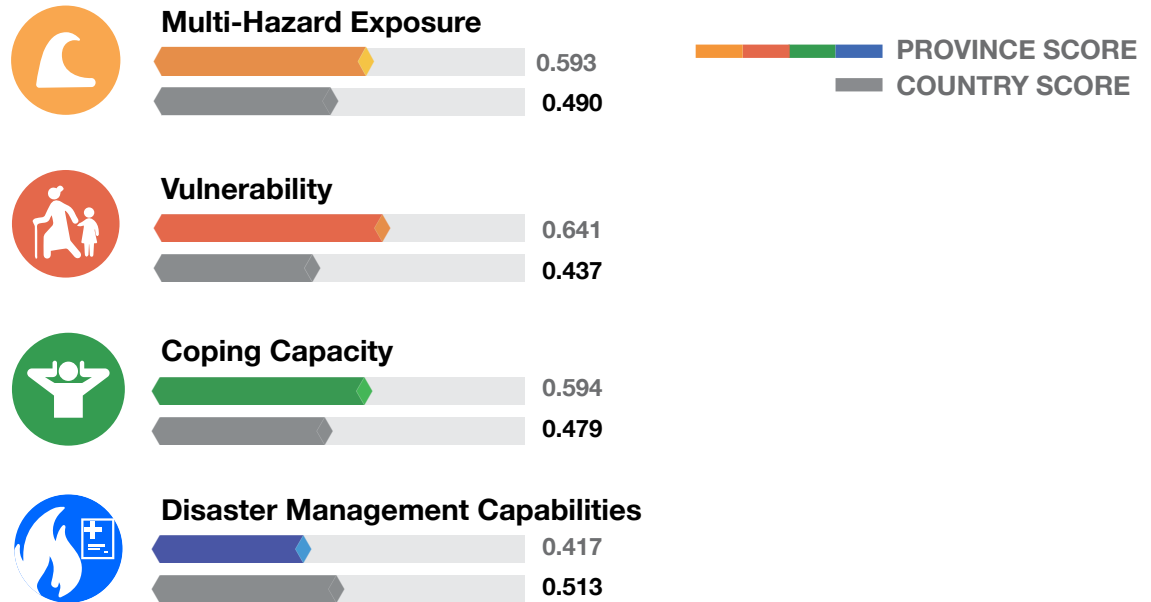
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RANK WITHIN PROVINCES
Score: 0.556



Papua's Very High Multi-hazard Risk score and ranking are due to High Multi-hazard exposure combined with Very High Vulnerability, Very High Coping Capacity, and Very Low Disaster Management Capabilities scores.

Multi-hazard risk component scores compared to overall average country scores:



PAPUA RECOMMENDATIONS

1

Information Access Vulnerability

Papua has the highest overall Information Access Vulnerability in the country, driven by the lowest Adult Literacy Rate, the lowest Enrollment in Primary School, the lowest Average Years of Schooling, and the lowest Internet Usage.

Enhance partnership engagements with I/NGOs and stakeholders to implement programs focused on overcoming challenges in education access, service delivery and improving learning outcomes among students.

Invest in telecommunications infrastructure to improve connectivity and access to hazard alerts and warning information while simultaneously expanding implementation of education and outreach programs to improve community preparedness, health and safety.

2

Clean Water Access Vulnerability

Papua has the highest ranking for Clean Water Access Vulnerability in Indonesia. Findings show 60.85% of households have Access to Improved Water, with only 38.27% of households having Access to Improved Sanitation. Invest in infrastructure to improve access to clean water and provide sanitation services to reduce health risks.

Findings show that Papua is susceptible to flooding and landslides. Implement community education programs to protect water sources from these hazards as well as contaminants resulting from sediment and poor sanitation practices.

PAPUA RECOMMENDATIONS

3

Energy Capacity

Findings show that Papua has the 2nd lowest ranking for Energy Capacity, with the lowest number of households served by the state electricity company (44.49%). Access to gas fuel is also limited in Papua with only 1.39% using gas for cooking purposes.

Strengthen public-private partnerships to improve energy development and service delivery in Papua. Increasing access to energy sources has the potential to improve quality of life, support economic activities and enhance social welfare by increasing access to education and community services.

Due to Papua's considerable exposure to earthquakes, landslides and wildfires, implement risk reduction measures for infrastructure expansion projects to minimize damage and losses and maintain a high level of service.

4

Communications Capacity

Papua has the 2nd lowest Communications Capacity ranking in Indonesia, with the lowest percentage of Mobile Phone Ownership (38.5%) and the 7th lowest percentage of Households with Fixed Phones. Limited communications capacity can present challenges during emergencies and for hazard early warning that requires immediate or life-saving action such as evacuation or rescue.

Invest in improvements to telecommunications infrastructure to expand coverage and service delivery to rural populations.

PAPUA RECOMMENDATIONS

5

Emergency Services

Papua has the lowest overall Emergency Services capabilities ranking in the country. Remoteness is a contributor. Only 3.45% of districts in the province have Emergency Operations Centers. The Average Distance to a Fire Station is over 203 km away, and Average Distance to a Police Station is 62.5 km away. Thus, response times during an emergency will be slow, reducing the population's reliance on important services.

Invest in local emergency management and emergency service infrastructure to include emergency operations centers, police and fire stations, and ambulance services.

Build institutional capacities at district levels to financially support and manage emergency service operations. Develop community-based education and outreach programs and citizen brigades to increase hazard awareness and preparedness and strengthen response capabilities.

6

Early Warning and Monitoring

Papua ranks 23rd for Early Warning and Monitoring capabilities based on density of monitoring station and hazard type. Given Papua's communications infrastructure limitations, delays in receiving and disseminating warning information is likely. Work with stakeholders and available media sources to optimize distribution of hazard warning messages within existing constraints. As improvements to infrastructure advance, continue partnership engagement to maximize reach and effectiveness of hazard alerting.

**Better solutions.
Fewer disasters.**

Safer world.

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