

**INDONESIA** 

# **PAPUA BARAT**

# **NDPBA PROVINCE PROFILE**



# **PAPUA BARAT**

**CAPITAL: MANOKWARI** 

Area: 102,955

 $km^2$ 

Papua Barat (West Papua) is one of the newest administrative regions in Indonesia (1999) and due to transmigration policies in recent decades has seen a significant



increase in population. Historical hazards have included recent earthquakes and resultant tsunamis and the province has both low resilience levels and coping capacity in the face of very high vulnerability levels. Multiple international organizations have worked in the region to help further DRR and CCA efforts and enhancements in information access, transportation and energy capacity will be important in the coming decades.

### **RISK AND VULNERABILITY**

### **COMPONENT SCORE**



### **MULTI-HAZARD RISK (MHR) - Low**

Score: 0.479 · Rank: 21/34



### **RESILIENCE (R) - Low**

Score: 0.479 · Rank: 27/34



### **MULTI-HAZARD EXPOSURE (MHE) - Low**

Score: 0.352 · Rank: 26/34



### **VULNERABILITY (V) - Very High**

Score: 0.560 · Rank: 3/34



### **COPING CAPACITY (CC) - Low**

Score: 0.450 · Rank: 22/34



# DISASTER MANAGEMENT CAPABILITIES (DMC) - High

Score: 0.547 · Rank: 11/34



Population (2020 Projected)

981,800



**Population in Poverty** 

21.5%



**Adult Literacy Rate** 

97.7%



Access to improved water

81.9%



Average life expectancy

**65.9 years** 

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



# **MULTI-HAZARD EXPOSURE (MHE)**

**RANK: 26 / 34 PROVINCES** 

**SCORE: 0.352** 



MHE 0.352

Raw MHE 0.128

Relative MHE 0.576

### **ESTIMATED POPULATION AND CAPITAL EXPOSED TO EACH HAZARD:**



Earthquake

62%

**\$** 524,723

\$11.3 Billion



Flood

26%

**221,982** 

\$3.86 Billion



Landslide

20%

**168,018** 

\$3.4 Billion



**Drought** 

**55%** 

**458,382** 

\$8.9 Billion



**Extreme Weather** 

53%

**444,119** 

\$9.4 Billion



**T**sunami

7%

**55,435** 

\$1.3 Billion



Flash Flood

3%

**23,549** 

\$538.2 Million



Volcano

**J**%

**L** -





Wildfire

**35%** 

**293,610** 

\$4.1 Billion



# **VULNERABILITY (V)**

**RANK: 3 / 34 PROVINCES ASSESSED** 

**SCORE: 0.560** 

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



### **Environmental Stress**

SCORE: 0.039 RANK: 34/34 PROVINCES ASSESSED

4.6% 1.57 -1683.8

Land susceptible to Livestock Density Net Deforestation severe erosion (per sq km) Net Deforestation (hectares per year)



### **Vulnerable Health Status**

SCORE: 0.619 RANK: 4/34 PROVINCES ASSESSED

65.9 74 280.36 12.2% 7.3% 4.3% 29.3% Children (under Unmet health Households with limited Life expectancy Infant mortality rate Maternal Disasbility (per 1,000 live births) access to health facility (years) mortality ratio 5) Wasting care needs

0.7% 24.32 0.21 6.02 245 185.71 9.28

Households with Dengue incidence Measles incidence Malaria incidence TB case HIV & AIDS Prevalence of

catastrophic health per 100,000 per 100,000 per 100,000 notification incidence per Leprosy per expenditure population population population population population

# Clean Water Vulnerability

SCORE: 0.511 RANK: 15/34 PROVINCES ASSESSED

81.9% 76.4%

Households with Households with improved improved water sanitation

## Information Access Vulnerability

SCORE: 0.664 RANK: 6/34 PROVINCES ASSESSED

97.7% 93.8% 7.44 66.6%

Adult literacy rate Net primary school Average years of enrollment rate schooling Household using internet

### Economic Constraints

SCORE: 0.624 RANK: 3/34 PROVINCES ASSESSED

6.2% 47.1 21.5% 0.386

Unemployment Age dependency Poverty rate GINI ratio rate ratio

### **Gender Inequality**

SCORE: 0.618 RANK: 3/34 PROVINCES ASSESSED

Female to male Female to male Female to male literacy rate labor ratio secondary school seats in enrollment ratio government

### **Population Pressures**

change

SCORE: 0.848 RANK: 1/34 PROVINCES ASSESSED

2.8% 5.0%

Average annual total population urban population

change



# **COPING CAPACITY (CC)**

**RANK: 22 / 34 PROVINCES ASSESSED** 

**SCORE: 0.450** 

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



### **Economic Capacity**

**SCORE: 0.552 RANK: 6/34 PROVINCES ASSESSED** 

68.3%

3,364,838

68.5

Labor force participation Average monthly income (IDR)

GDP per capita (Million IDR)



### Governance

SCORE: 0.321

**RANK: 31/34 PROVINCES ASSESSED** 

380

27.5%

87.6%

Crime rate per 100,000 population

Crime clearance

Voter participation



### **Environmental Capacity**

SCORE: 0.741

**RANK: 4/34 PROVINCES ASSESSED** 





### Infrastructure Capacity

SCORE: 0.381 RANK: 28/34 PROVINCES ASSESSED



**Health Care Capacity** 

SCORE: 0.466 RANK: 18/34 PROVINCES ASSESSED

13.8

3.92

22.09

14.6%

41.1%

36.2%

77.1%

Hospital beds per 10,000 people

Physicians per 10,000 people

Nurses and midwives per 10,000 people

Time to public hospital (over 1 hour)

Immunization rate (children under 5)

Health care accreditation rate

Population covered by health insurance



Transportation Capacity SCORE: 0.249 RANK: 30/34 PROVINCES ASSESSED



Road and rail density

Average distance to port or airport



Communications Capacity SCORE: 0.618 RANK: 18/34 PROVINCES ASSESSED

66.5%

0.7%

41

Mobile phone ownership

Households with Fixed Phones



**Energy Capacity SCORE: 0.192 RANK: 32/34 PROVINCES ASSESSED** 

81.3%

0.1%

34.28

4.3%

Households served by state electricity

Percentage of total national electricity gererated in province Electricity generation GWh per 100,000 Population

Households with gas for

cooking



# **DISASTER MANAGEMENT CAPABILITIES (DMC)**

**RANK: 11 / 34 PROVINCES ASSESSED** 

**SCORE: 0.450** 

Papua Barat exhibits weaker Disaster Management Capabilities in the areas of Mass Care Support 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**

SCORE: 0.579 **RANK: 18/34 PROVINCES ASSESSED** 0.65 1.16 7.7% 24.43 618.75 Ambulances per Citizen brigade personnel Search and rescue District EOC Distance to nearest Distance to nearest 10,000 persons per 10,000 persons staff per 10,000 coverage police station (km) fire Station (km)



### **Mass Care Support**

SCORE: 0.517 **RANK: 17/34 PROVINCES ASSESSED** 305.17 0.59 0.06 0.11 4.48 0.11

Distance to nearest disaster stockpile (km)

Vehicle euipment per 10,000 persons

Shelter equipment per 10,000 persons

persons

Communications

Support equipment equipment per 10,000 per 10,000 persons **Emergency Shelters** per 10,000 persons



### **Early Warning and Monitoring**

SCORE: 0.544 **RANK: 13/34 PROVINCES ASSESSED** 

1.1 0.64

Geophysical monitoring per exposed population

Meterological/climatological monitoring per exposed population

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# **RESILIENCE (R)**

**RANK: 27 / 34 PROVINCES ASSESSED** 

**SCORE: 0.479** 

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

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













Population Pressures

Information Access Vulnerability

Energy Capacity Transportation Capacity

Mass Care Support

Early Warning and Monitoring



# **HAZARD-SPECIFIC RISK (HSR)**



Earthquake

RANK: 16 / 34 PROVINCES ASSESSED

SCORE: 0.252



**Tsunami** 

**RANK: 10 / 34 PROVINCES ASSESSED** 

SCORE: 0.279



Flood

**RANK: 25 / 34 PROVINCES ASSESSED** 

SCORE: 0.167



Flash Flood

**RANK: 16/34 PROVINCES ASSESSED** 

SCORE 0.204



Landslide

**RANK: 3/34 PROVINCES ASSESSED** 

SCORE 3.335



Volcano

**RANK: 23 / 34 PROVINCES ASSESSED** 

SCORE: 0.131



Drought

**RANK: 16/34 PROVINCES ASSESSED** 

SCORE 0.227



Wildfire

RANK: 4 / 34 PROVINCES ASSESSED

SCORE: 0.283



Extreme Weather

RANK: 33 / 34 PROVINCES ASSESSED

SCORE: 0.125

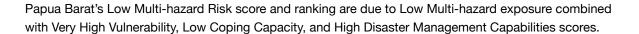


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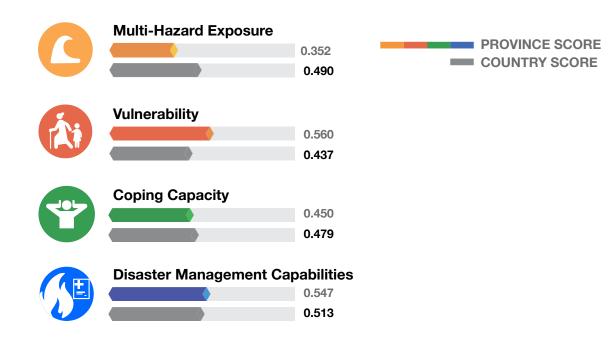
# **MULTI-HAZARD RISK (MHR)**

21 / 34

RANK WITHIN PROVINCES



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



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### PAPUA BARAT RECOMMENDATIONS

### **Population Pressures**

Papua Barat has the highest ranking for Population Pressures in Indonesia based on the 2nd highest ranking for Net Recent Migration (45.57) and the 3rd highest ranking for both Average Population Change (2.83%) and Urban Population Change (4.97%). Significant changes in population in Papua Barat are a result of the transmigration program, initiated by the Dutch colonial government and later continued by the government of Indonesia until 2015. The program has been the source of internal conflict between indigenous peoples and migrants from other parts of Indonesia.

Rapid changes in population without adequate infrastructure, services and employment opportunities can contribute to negative outcomes and increased vulnerability. Findings show that Papua Barat has the 6th highest unemployment score in the country, and nearly 22% of the population lives in poverty.

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### **Information Access Vulnerability**

Papua Barat has the 6th highest Information Access Vulnerability, driven by the 4th lowest Net Enrollment in Primary School (0.93%) and the 4th lowest Average Years of Schooling (7.44 years). Improve physical access to education, especially in rural areas through infrastructure improvements (e.g., roads, electricity and telecommunication services). Reduce absenteeism and strengthen accountability of teachers through increased community participation engaging parents, teachers and school administrators.

Provide financial or infrastructure incentives (e.g., housing) for teachers in rural areas to encourage more equitable learning opportunities.

# PAPUA BARAT RECOMMENDATIONS



### **Energy Capacity**

Papua Barat has the 3rd lowest Energy Capacity ranking with the 3rd lowest percentage of households served by the state electricity company (81.33%) and the 5th lowest percentage of households using gas as cooking fuel (4.32%).

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

Findings show that Papua Barat has a high rate of exposure to earthquakes. As improvements to energy infrastructure take place, implement risk reduction measures to minimize potential damage and losses.



### **Transportation Capacity**

Findings show that Papua Barat has the 5th lowest ranking for Transportation Capacity in the country. Cultivate public-private partnerships to invest in transportation infrastructure expansion to improve connectivity between seaports and land-based infrastructure.

In urban areas, consider options for mass transit/ public transport systems to augment transportation needs, reduce congestion and lessen environment impacts (e.g., air pollution).

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# PAPUA BARAT RECOMMENDATIONS

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### **Mass Care Support**

Mass Care Support in Papua Barat could be improved through increased numbers of Disaster Equipment such as vehicles and communications and shelter equipment. Disaster Stockpiles are on average, a distance of over 300 km away. Strengthen logistical planning to accommodate the care needs of a disaster affected population.



### **Early Warning and Monitoring**

Papua Barat ranks 13th for Early Warning and Monitoring capabilities. Strengthen community education and outreach programs with a focus on disaster preparedness, health and safety to build community resilience.



Better solutions. Fewer disasters.

# Safer World.

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