



**INDONESIA**

# **SULAWESI BARAT**

**NDPBA PROVINCE PROFILE**

# SULAWESI BARAT

**CAPITAL: MAMUJU**

Area: 16,787  
km<sup>2</sup>



Sulawesi Barat (West Sulawesi) is also a recent provincial addition (2004) and has historically been affected by earthquakes, floods and tsunamis. Whilst the region's multi-hazard risk and exposure are low to moderate, coping capacity and resilience levels are also low with higher levels of disaster management capabilities. Information access and clean water are challenges and improvements in transportation and communications will help build the DRR capabilities of the region.

## RISK AND VULNERABILITY COMPONENT SCORE



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

Score: 0.506 • Rank: 14/34



**RESILIENCE (R) - Very Low**

Score: 0.474 • Rank: 29/34



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

Score: 0.447 • Rank: 22/34



**VULNERABILITY (V) - Very High**

Score: 0.538 • Rank: 4/34



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

Score: 0.392 • Rank: 28/34



**DISASTER MANAGEMENT CAPABILITIES (DMC) - Very High**

Score: 0.567 • Rank: 6/34



Population (2020 Projected)

**1,405,000**



Population in Poverty

**11.0%**



Adult Literacy Rate

**93.6%**



Access to improved water

**71.5%**



Average life expectancy

**64.8 years**

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



## MULTI-HAZARD EXPOSURE (MHE)

RANK: 22 / 34 PROVINCES  
SCORE: 0.447



MHE  
0.447

Raw MHE  
0.257

Relative MHE  
0.636

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



Earthquake

**92%**

1,170,305  
\$32.2 Billion



Tsunami

**10%**

128,607  
\$6.1 Billion



Flood

**38%**

478,542  
\$16.4 Billion



Flash Flood

**4%**

55,462  
\$1.4 Billion



Landslide

**17%**

215,166  
\$2.3 Billion



Volcano

**0%**

-  
-



Drought

**2%**

28,504  
\$296.5 Million



Wildfire

**12%**

146,670  
\$1.6 Billion



Extreme Weather

**98%**

1,238,125  
\$32.7 Billion



## VULNERABILITY (V)

**RANK: 4 / 34 PROVINCES ASSESSED**  
**SCORE: 0.538**

Vulnerability in Sulawesi Barat 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: 0.356 RANK: 19/34 PROVINCES ASSESSED**

<b>17.2%</b> Land susceptible to severe erosion	<b>26.24</b> Livestock Density (per sq km)	<b>566.4</b> Net Deforestation (hectares per year)
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### Vulnerable Health Status

**SCORE: 0.584 RANK: 5/34 PROVINCES ASSESSED**

<b>64.82</b> Life expectancy (years)	<b>60</b> Infant mortality rate (per 1,000 live births)	<b>338.39</b> Maternal mortality ratio	<b>10.5%</b> Children (under 5) Wasting	<b>7.8%</b> Disability	<b>5.9%</b> Unmet health care needs	<b>22.1%</b> Households with limited access to health facility
<b>0.7%</b> Households with catastrophic health expenditure	<b>39.25</b> Dengue incidence per 100,000 population	<b>11.66</b> Measles incidence per 100,000 population	<b>0.14</b> Malaria incidence per 100,000 population	<b>162</b> TB case notification per 100,000 population	<b>1.84</b> HIV & AIDS incidence per 100,000 population	<b>1.59</b> Prevalence of Leprosy per 10,000 population



### Clean Water Vulnerability

**SCORE: 0.682 RANK: 6/34 PROVINCES ASSESSED**

<b>71.5%</b> Households with improved water	<b>73.4%</b> Households with improved sanitation
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### Information Access Vulnerability

**SCORE: 0.715 RANK: 3/34 PROVINCES ASSESSED**

<b>93.6%</b> Adult literacy rate	<b>95.9%</b> Net primary school enrollment rate	<b>7.73</b> Average years of schooling	<b>59.1%</b> Household using internet
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### Economic Constraints

**SCORE: 0.438 RANK: 13/34 PROVINCES ASSESSED**

<b>3.2%</b> Unemployment rate	<b>53.8</b> Age dependency ratio	<b>11.0%</b> Poverty rate	<b>0.365</b> GINI ratio
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### Gender Inequality

**SCORE: 0.637 RANK: 2/34 PROVINCES ASSESSED**

<b>0.98</b> Female to male literacy rate	<b>0.61</b> Female to male labor ratio	<b>1.24</b> Female to male secondary school enrollment ratio	<b>17.8%</b> Percent female seats in government
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### Population Pressures

**SCORE: 0.355 RANK: 23/34 PROVINCES ASSESSED**

<b>2.1%</b> Average annual total population change	<b>2.1%</b> Average annual urban population change
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## COPING CAPACITY (CC)

**RANK: 28 / 34 PROVINCES ASSESSED**  
**SCORE: 0.392**

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



### Economic Capacity

**SCORE: 0.271 RANK: 27/34 PROVINCES ASSESSED**

<b>69.3%</b> Labor force participation	<b>2,161,381</b> Average monthly income (IDR)	<b>23.3</b> GDP per capita (Million IDR)
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### Governance

**SCORE: 0.651 RANK: 12/34 PROVINCES ASSESSED**

<b>144</b> Crime rate per 100,000 population	<b>56.2%</b> Crime clearance rate	<b>86.8%</b> Voter participation
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### Environmental Capacity

**SCORE: 0.467 RANK: 11/34 PROVINCES ASSESSED**

**11.5%**  
Protected area



### Infrastructure Capacity

**SCORE: 0.231 RANK: 34/34 PROVINCES ASSESSED**



### Health Care Capacity SCORE: 0.321 RANK: 29/34 PROVINCES ASSESSED

<b>9.1</b> Hospital beds per 10,000 people	<b>1.24</b> Physicians per 10,000 people	<b>11.94</b> Nurses and midwives per 10,000 people	<b>40.1%</b> Time to public hospital (over 1 hour)	<b>46.3%</b> Immunization rate (children under 5)	<b>53.8%</b> Health care accreditation rate	<b>103.9%</b> Population covered by health insurance
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### Transportation Capacity SCORE: 0.076 RANK: 34/34 PROVINCES ASSESSED

<b>0.07</b> Road and rail density	<b>58.18</b> Average distance to port or airport
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### Communications Capacity SCORE: 0.171 RANK: 34/34 PROVINCES ASSESSED

<b>52.2%</b> Mobile phone ownership	<b>0.0%</b> Households with Fixed Phones
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### Energy Capacity SCORE: 0.356 RANK: 29/34 PROVINCES ASSESSED

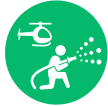
<b>84.8%</b> Households served by state electricity	<b>0.0%</b> Percentage of total national electricity generated in province	<b>3.26</b> Electricity generation GWh per 100,000 Population	<b>78.4%</b> Households with gas for cooking
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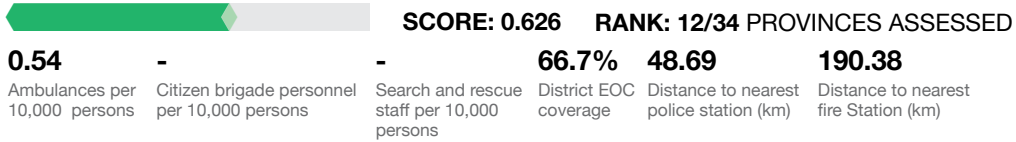
# DISASTER MANAGEMENT CAPABILITIES (DMC)

**RANK: 6 / 34 PROVINCES ASSESSED**  
**SCORE: 0.392**

Sulawesi Barat exhibits weaker Disaster Management Capabilities in the areas of Early Warning and Monitoring and Mass Care Support. The bar charts indicate the disaster management themes contributing to the province's overall Disaster Management Capabilities score.



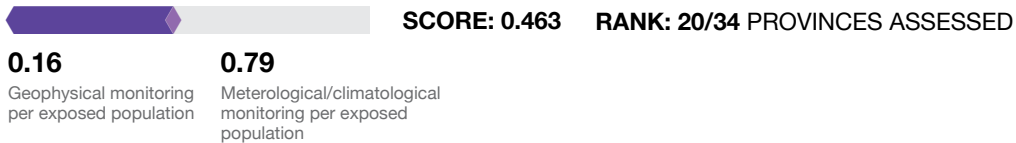
## Emergency Services



## Mass Care Support



## Early Warning and Monitoring





## RESILIENCE (R)

**RANK: 29 / 34 PROVINCES ASSESSED**  
**SCORE: 0.474**

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

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



**Information Access Vulnerability**



**Clean Water Access Vulnerability**



**Transportation Capacity**



**Communications Capacity**



**Early Warning and Monitoring**



**Mass Care Support**



## HAZARD-SPECIFIC RISK (HSR)



**Earthquake**

**RANK: 4 / 34 PROVINCES ASSESSED**  
**SCORE: 0.339**



**Tsunami**

**RANK: 2 / 34 PROVINCES ASSESSED**  
**SCORE: 0.379**



**Flood**

**RANK: 18 / 34 PROVINCES ASSESSED**  
**SCORE: 0.210**



**Flash Flood**

**RANK: 14 / 34 PROVINCES ASSESSED**  
**SCORE: 0.214**



**Landslide**

**RANK: 7 / 34 PROVINCES ASSESSED**  
**SCORE: 0.299**



**Volcano**

**RANK: 20 / 34 PROVINCES ASSESSED**  
**SCORE: 0.154**



**Drought**

**RANK: 34 / 34 PROVINCES ASSESSED**  
**SCORE: 0.096**



**Wildfire**

**RANK: 23 / 34 PROVINCES ASSESSED**  
**SCORE: 0.192**



**Extreme Weather**

**RANK: 16 / 34 PROVINCES ASSESSED**  
**SCORE: 0.265**



## MULTI-HAZARD RISK (MHR)

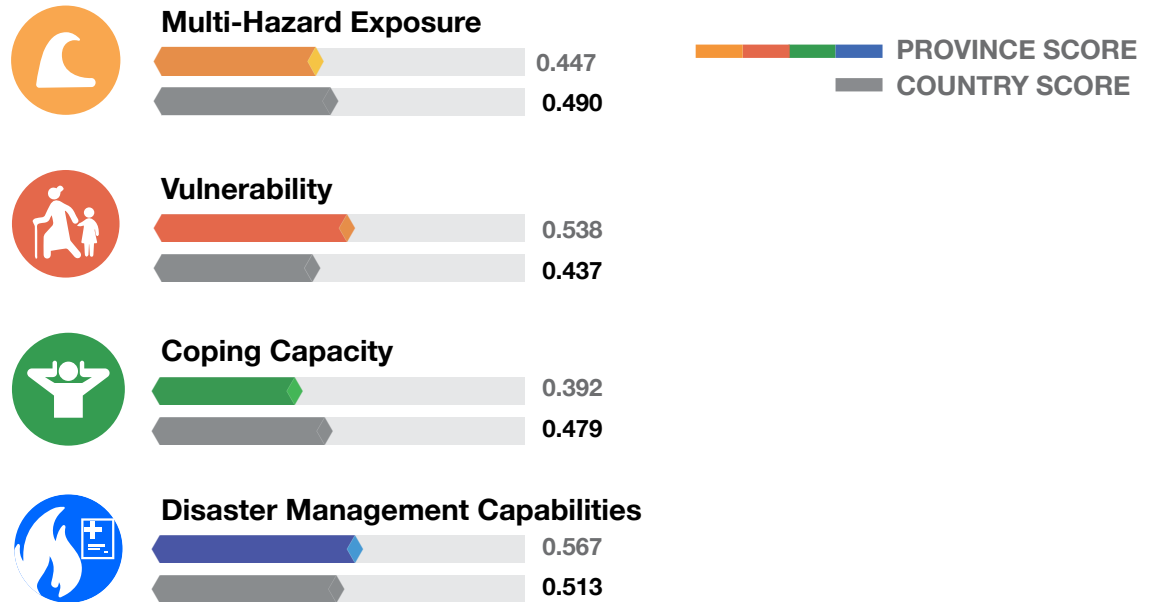
**14 / 34**

RANK WITHIN PROVINCES  
Score: 0.506



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

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





# SULAWESI BARAT RECOMMENDATIONS

# 1

## Information Access Vulnerability

Sulawesi Barat has the 3rd highest Information Access Vulnerability in Indonesia, driven by the 6th lowest Net Enrollment in Primary School. In addition, over 40% of households do not have Internet Access.

Improve physical access to education, especially in rural areas through infrastructure improvements (e.g., roads, electricity and telecommunication services).

Continue partnership engagements with I/ NGOs and stakeholders to implement programs focused on overcoming challenges in education service delivery and improving learning outcomes among students. Foster engagement among parents, teachers and school administrators through participation in school committees to raise awareness of parental roles in supporting student learning, reduce absenteeism, and reinforce the value of education.

# 2

## Clean Water Access Vulnerability

Sulawesi Barat has the 6th highest Clean Water Access Vulnerability in Indonesia, with only 71.5% of households having Access to Improved Water and 73.39% of households having Access to Improved Sanitation.

Invest in clean water infrastructure to improve access and service delivery to remote areas.

Implement risk reduction measures that protect investments and reduce potential health risks arising as a result of hazard induced impacts (i.e., earthquakes and flooding).

# SULAWESI BARAT RECOMMENDATIONS

## 3

### Transportation Capacity

Findings show that Sulawesi Barat has the lowest Transportation Capacity in the country, with the greatest Average Distance to a Port or Airport (58.18 km), and the 5th lowest Road and Railway Density (0.07 km per square km).

Continue to invest in long-term planning and development of transportation infrastructure and improvements. Prioritize infrastructure development in remote areas to improve access to services and facilitate response operations during a disaster.

Multi-stakeholder approaches to improving transportation capacity could also facilitate enhancements to other much needed infrastructure services (e.g., water, telecommunications, energy), as these are often installed along improved roadways.

## 4

### Communications Capacity

Sulawesi Barat has the lowest ranking for overall Communications Capacity in the country. Data indicate that no households have Fixed Phones, and only 52.18% of residents own Mobile Phones.

Limited Communications Capacity has direct bearing on the receipt of timely warning information. Utilize all available communication channels (e.g., TV, radio, SMS, Internet) for disseminating hazard alerts, and implement outreach campaigns to increase hazard awareness and community preparedness.

Pursue public/private partnerships to expand telecommunications infrastructure and reach, especially in rural areas.

# SULAWESI BARAT RECOMMENDATIONS

## 5

### Early Warning and Monitoring

Findings show that the province has the 2nd lowest geophysical hazard monitoring coverage in the country. Given the province's exposure to earthquake, landslide and tsunami hazards, work with existing institutions to improve coverage of monitoring stations.

Strengthen mechanisms for receiving timely warning information and explore ways to increase efficiency and redundancy in disseminating alerts and warnings to the population given the limited penetration of telecommunications infrastructure in the province.

## 6

### Mass Care Support

Findings show that the province has the 10th highest ranking for Mass Care Support, primarily due to the Number of Shelters (4.82 per 10,000 persons) and its proximity to a Disaster Stockpile (77.19 km). However, Sulawesi Barat's capabilities to provide mass care are hampered by a lack of Disaster Equipment.

Invest in vehicles and equipment to support communications, sheltering and other needs (e.g., lighting, generators, chainsaws) to enhance the province's ability to meet the care needs of the population during a disaster.

**Better solutions.  
Fewer disasters.**

# Safer world.

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