



INDONESIA

SUMATERA BARAT

NDPBA PROVINCE PROFILE

SUMATERA BARAT

CAPITAL: PADANG

Area: 42,013 km²



Sumatera Barat (West Sumatra) is located on the west coast of the island of Sumatra with the Mentawai islands offshore having both a unique indigenous population and thriving tourism industry. The region was heavily impacted by the 2004 Indian Ocean earthquake and tsunami event and both BNPB and external actors such as DFID and USAID have worked to incorporate indigenous knowledge into DRR efforts. Multi-hazard risk and exposure are very high for Sumatera Barat and disaster management capabilities and coping capacity will need to be improved. Specific focus on strengthening transportation, governance, access to clean water and sanitation, and gender equity will help further CCA efforts to achieve SDGs.

RISK AND VULNERABILITY COMPONENT SCORE



MULTI-HAZARD RISK (MHR) - Very High

Score: 0.553 • Rank: 6/34



RESILIENCE (R) - Low

Score: 0.484 • Rank: 24/34



MULTI-HAZARD EXPOSURE (MHE) - Very High

Score: 0.664 • Rank: 5/34



VULNERABILITY (V) - High

Score: 0.453 • Rank: 12/34



COPING CAPACITY (CC) - Low

Score: 0.404 • Rank: 27/34



DISASTER MANAGEMENT CAPABILITIES (DMC) - Low

Score: 0.500 • Rank: 21/34



Population (2020 Projected)

5,498,800



Population in Poverty

6.3%



Adult Literacy Rate

99.2%



Access to improved water

81.4%



Average life expectancy

69.3 years

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



MULTI-HAZARD EXPOSURE (MHE)

RANK: 5 / 34 PROVINCES
SCORE: 0.664



MHE
0.664

Raw MHE
0.658

Relative MHE
0.669

ESTIMATED POPULATION AND CAPITAL EXPOSED TO EACH HAZARD:



Earthquake

97%

5,108,222
\$149.6 Billion



Tsunami

10%

524,956
\$35.5 Billion



Flood

35%

1,837,539
\$83.88 Billion



Flash Flood

10%

552,053
\$31.3 Billion



Landslide

6%

308,187
\$5.4 Billion



Volcano

3%

133,001
\$1.6 Billion



Drought

3%

171,353
\$1.5 Billion



Wildfire

8%

440,411
\$5.1 Billion



Extreme Weather

97%

5,128,845
\$149.8 Billion



VULNERABILITY (V)

RANK: 12 / 34 PROVINCES ASSESSED
SCORE: 0.453

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



Environmental Stress

SCORE: 0.437 RANK: 10/34 PROVINCES ASSESSED

22.1%	18.67	3824.1
Land susceptible to severe erosion	Livestock Density (per sq km)	Net Deforestation (hectares per year)



Vulnerable Health Status

SCORE: 0.376 RANK: 20/34 PROVINCES ASSESSED

69.31	27	181.7	11.3%	9.4%	3.3%	3.8%
Life expectancy (years)	Infant mortality rate (per 1,000 live births)	Maternal mortality ratio	Children (under 5) Wasting	Disability	Unmet health care needs	Households with limited access to health facility
1.8%	40.93	3.81	0.06	201	36.38	0.12
Households with catastrophic health expenditure	Dengue incidence per 100,000 population	Measles incidence per 100,000 population	Malaria incidence per 100,000 population	TB case notification per 100,000 population	HIV & AIDS incidence per 100,000 population	Prevalence of Leprosy per 10,000 population



Clean Water Vulnerability

SCORE: 0.718 RANK: 4/34 PROVINCES ASSESSED

81.4%	64.0%
Households with improved water	Households with improved sanitation



Information Access Vulnerability

SCORE: 0.337 RANK: 29/34 PROVINCES ASSESSED

99.2%	98.7%	8.92	69.7%
Adult literacy rate	Net primary school enrollment rate	Average years of schooling	Household using internet



Economic Constraints

SCORE: 0.385 RANK: 21/34 PROVINCES ASSESSED

5.3%	54.8	6.3%	0.306
Unemployment rate	Age dependency ratio	Poverty rate	GINI ratio



Gender Inequality

SCORE: 0.572 RANK: 8/34 PROVINCES ASSESSED

0.99	0.67	1.21	10.8%
Female to male literacy rate	Female to male labor ratio	Female to male secondary school enrollment ratio	Percent female seats in government



Population Pressures

SCORE: 0.348 RANK: 25/34 PROVINCES ASSESSED

1.3%	4.5%
Average annual total population change	Average annual urban population change



COPING CAPACITY (CC)

RANK: 27 / 34 PROVINCES ASSESSED
SCORE: 0.404

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



Economic Capacity

SCORE: 0.334 RANK: 19/34 PROVINCES ASSESSED

67.5% Labor force participation	2,681,766 Average monthly income (IDR)	32.5 GDP per capita (Million IDR)
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Governance

SCORE: 0.285 RANK: 33/34 PROVINCES ASSESSED

243 Crime rate per 100,000 population	45.3% Crime clearance rate	79.0% Voter participation
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Environmental Capacity

SCORE: 0.794 RANK: 3/34 PROVINCES ASSESSED

19.2%
Protected area



Infrastructure Capacity

SCORE: 0.464 RANK: 21/34 PROVINCES ASSESSED



Health Care Capacity SCORE: 0.517 RANK: 13/34 PROVINCES ASSESSED

13.1 Hospital beds per 10,000 people	3.92 Physicians per 10,000 people	16.55 Nurses and midwives per 10,000 people	17.4% Time to public hospital (over 1 hour)	39.5% Immunization rate (children under 5)	85.5% Health care accreditation rate	76.3% Population covered by health insurance
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Transportation Capacity SCORE: 0.273 RANK: 26/34 PROVINCES ASSESSED

0.22 Road and rail density	46.87 Average distance to port or airport
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Communications Capacity SCORE: 0.622 RANK: 17/34 PROVINCES ASSESSED

62.6% Mobile phone ownership	1.2% Households with Fixed Phones
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Energy Capacity SCORE: 0.444 RANK: 25/34 PROVINCES ASSESSED

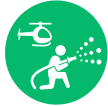
97.2% Households served by state electricity	0.0% Percentage of total national electricity generated in province	1.26 Electricity generation GWh per 100,000 Population	72.5% Households with gas for cooking
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DISASTER MANAGEMENT CAPABILITIES (DMC)

RANK: 21 / 34 PROVINCES ASSESSED
SCORE: 0.404

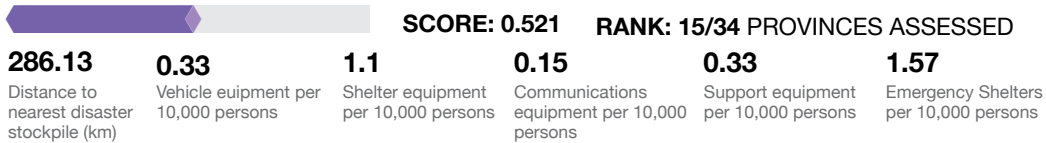
Sumatera Barat exhibits weaker Disaster Management Capabilities in the areas of Early Warning and Monitoring and Mass Care Support. The bar charts indicate the disaster management themes contributing to the province's overall Disaster Management Capabilities score.



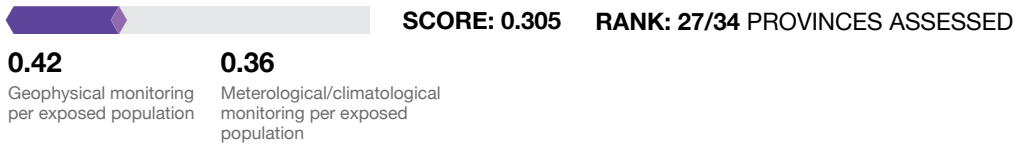
Emergency Services



Mass Care Support



Early Warning and Monitoring





RESILIENCE (R)

RANK: 24 / 34 PROVINCES ASSESSED
SCORE: 0.484

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

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



Clean Water Access Vulnerability



Gender Inequality



Transportation Capacity



Governance



Early Warning and Monitoring



Mass Care Support



HAZARD-SPECIFIC RISK (HSR)



Earthquake

RANK: 1 / 34 PROVINCES ASSESSED
SCORE: 0.352



Tsunami

RANK: 3 / 34 PROVINCES ASSESSED
SCORE: 0.375



Flood

RANK: 5 / 34 PROVINCES ASSESSED
SCORE: 0.289



Flash Flood

RANK: 1 / 34 PROVINCES ASSESSED
SCORE: 0.371



Landslide

RANK: 9 / 34 PROVINCES ASSESSED
SCORE: 0.276



Volcano

RANK: 5 / 34 PROVINCES ASSESSED
SCORE: 0.298



Drought

RANK: 28 / 34 PROVINCES ASSESSED
SCORE: 0.147



Wildfire

RANK: 15 / 34 PROVINCES ASSESSED
SCORE: 0.234



Extreme Weather

RANK: 3 / 34 PROVINCES ASSESSED
SCORE: 0.327



MULTI-HAZARD RISK (MHR)

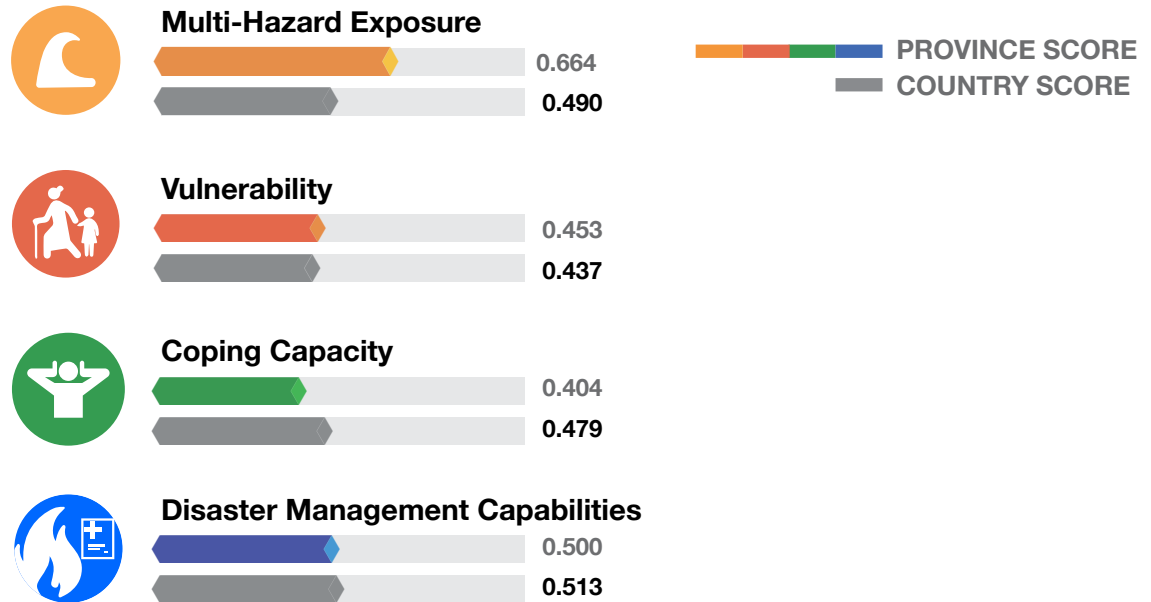
6 / 34

RANK WITHIN PROVINCES
Score: 0.553



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

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



SUMATERA BARAT RECOMMENDATIONS

1

Clean Water Access Vulnerability

Sumatera Barat ranks 4th for Clean Water Access Vulnerability driven by the 2nd lowest score for Improved Sanitation (63.98% households). Investments are needed to improve water and sanitation infrastructure to increase access to clean water and sanitation services and reduce health risks.

Findings show that approximately 50% of Sumatera Barat's population and economic assets are exposed to flooding. Educate exposed communities on potential impacts of flooding on fresh water and sanitation systems.

Sumatera Barat has a high rate of exposure to earthquakes. Implement mitigation strategies to protect clean water and sanitation infrastructure investments to reduce potential hazard impacts and increase resilience.

2

Gender Inequality

Sumatera Barat has the 8th highest ranking for overall Gender Inequality. Most significant findings show inequities related to female to male Secondary Enrollment and female representation in government below 12%, considerably lower than the country's target for female representation in government of 30%.

Promote gender equality through the enactment and implementation of laws that establish rights, responsibilities and opportunities for women, men, girls and boys related to education, leadership, employment.

Promote higher education opportunities for women to provide greater economic opportunities and enhanced quality of life.

SUMATERA BARAT RECOMMENDATIONS

3

Transportation Capacity

Sumatera Barat has the 9th lowest ranking for Transportation Capacity in the country driven by the 3rd highest Average Distance to a Port or Airport (46.87 km). Improvements to transportation networks will facilitate disaster response and relief efforts.

Increase connectivity between port facilities (i.e., airports and seaports) and land-based infrastructure (i.e., roads and railways).

Consider public-private and multi-agency engagement to strengthen planning and implementation of new transportation infrastructure to increase overall infrastructure capacity improvements (e.g., water, electricity, telecommunications).

4

Governance

Sumatera Barat has the 2nd lowest ranking for Governance, influenced by the 2nd lowest Voter Participation Rate (78.98%), the 5th lowest Crime Clearance Rate (45.27%) and the 6th highest Crime Rate per 100,000 persons (243 persons).

Strengthen institutions to ensure continuity of government and rule of law to reduce the potential for civil unrest due to a disaster.

Cultivate public support for increased surveillance monitoring and promote public safety campaigns.

SUMATERA BARAT RECOMMENDATIONS

5

Early Warning and Monitoring

Sumatera Barat has the 7th lowest ranking for Early Warning and Monitoring capabilities.

Implement preparedness campaigns that educate communities about their exposure to potential hazards, and socialize alert and warning procedures and protective actions they can take to safeguard lives and property.

6

Mass Care Support

Sumatera Barat ranks 15th for Mass Care Support and 8th for Disaster Equipment capabilities. Logistical enhancements could be made with regards to sheltering and greater accessibility to Disaster Stockpiles. On average Disaster Stockpiles are 286 km away from populated areas. Sumatera Barat has 1.57 Emergency Shelters per 10,000 persons. Ensure that gender considerations are included in sheltering plans.

**Better solutions.
Fewer disasters.**

Safer world.

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