



**INDONESIA**

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# **SULAWESI UTARA**

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**NDPBA PROVINCE PROFILE**

# SULAWESI UTARA

## CAPITAL: MANADO

Area: 13,892 km<sup>2</sup>



Sulawesi Utara (North Sulawesi) is auspiciously located on Sulawesi Island, south of the Philippines and southeast Malaysia, with various colonial influences via the

Dutch, British and others. Tourism, mining and agricultural pursuits have dominated the economy and both volcanic and seismic hazards have occurred in recent years. The World Bank, BMKG, and BNPB have all put forth DRR innovations for the region and improvements in environmental and health capacities are advised in the coming years to bolster DRR and CCA efforts.

## RISK AND VULNERABILITY COMPONENT SCORE



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

Score: 0.512 • Rank: 11/34



### RESILIENCE (R) - Moderate

Score: 0.532 • Rank: 13/34



### MULTI-HAZARD EXPOSURE (MHE) - Very High

Score: 0.646 • Rank: 6/34



### VULNERABILITY (V) - Very Low

Score: 0.367 • Rank: 31/34



### COPING CAPACITY (CC) - Low

Score: 0.431 • Rank: 26/34



### DISASTER MANAGEMENT CAPABILITIES (DMC) - Moderate

Score: 0.533 • Rank: 13/34



Population (2020 Projected)

**2,528,800**



Population in Poverty

**7.5%**



Adult Literacy Rate

**99.8%**



Access to improved water

**90.8%**



Average life expectancy

**71.6 years**

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



## MULTI-HAZARD EXPOSURE (MHE)

RANK: 6 / 34 PROVINCES  
SCORE: 0.646



MHE  
0.646

Raw MHE  
0.393

Relative MHE  
0.899

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



Earthquake

**93%**

2,200,620  
\$35.6 Billion



Tsunami

**7%**

171,779  
\$2.2 Billion



Flood

**17%**

409,646  
\$6.8 Billion



Flash Flood

**6%**

139,803  
\$2.6 Billion



Landslide

**5%**

112,727  
\$1.4 Billion



Volcano

**17%**

407,220  
\$7.2 Billion



Drought

**100%**

2,349,224  
\$37.6 Billion



Wildfire

**2%**

57,254  
\$669.6 Million



Extreme Weather

**94%**

2,219,843  
\$35.5 Billion



## VULNERABILITY (V)

**RANK: 31 / 34 PROVINCES ASSESSED**  
**SCORE: 0.367**

Vulnerability in Sulawesi Utara is primarily driven by Vulnerable Health Status and Environmental Stress. The bar charts indicate the socioeconomic themes contributing to the province's overall Vulnerability score.



### Environmental Stress

**SCORE: 0.439 RANK: 9/34 PROVINCES ASSESSED**

<b>18.0%</b>	<b>45.14</b>	<b>3135</b>
Land susceptible to severe erosion	Livestock Density (per sq km)	Net Deforestation (hectares per year)



### Vulnerable Health Status

**SCORE: 0.498 RANK: 9/34 PROVINCES ASSESSED**

<b>71.58</b>	<b>33</b>	<b>235.71</b>	<b>9.6%</b>	<b>11.9%</b>	<b>5.5%</b>	<b>8.3%</b>
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
<b>2.0%</b>	<b>64.72</b>	<b>0.89</b>	<b>0.15</b>	<b>273</b>	<b>72.41</b>	<b>2.13</b>
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: 0.307 RANK: 27/34 PROVINCES ASSESSED**

<b>90.8%</b>	<b>82.4%</b>
Households with improved water	Households with improved sanitation



### Information Access Vulnerability

**SCORE: 0.401 RANK: 20/34 PROVINCES ASSESSED**

<b>99.8%</b>	<b>95.0%</b>	<b>9.43</b>	<b>74.1%</b>
Adult literacy rate	Net primary school enrollment rate	Average years of schooling	Household using internet



### Economic Constraints

**SCORE: 0.434 RANK: 15/34 PROVINCES ASSESSED**

<b>6.3%</b>	<b>46.4</b>	<b>7.5%</b>	<b>0.367</b>
Unemployment rate	Age dependency ratio	Poverty rate	GINI ratio



### Gender Inequality

**SCORE: 0.219 RANK: 34/34 PROVINCES ASSESSED**

<b>1</b>	<b>0.52</b>	<b>1</b>	<b>33.3%</b>
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: 0.273 RANK: 30/34 PROVINCES ASSESSED**

<b>1.1%</b>	<b>3.4%</b>
Average annual total population change	Average annual urban population change



## COPING CAPACITY (CC)

**RANK: 26 / 34 PROVINCES ASSESSED**  
**SCORE: 0.431**

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



### Economic Capacity

**SCORE: 0.318** **RANK: 20/34 PROVINCES ASSESSED**

<b>63.9%</b> Labor force participation	<b>3,315,107</b> Average monthly income (IDR)	<b>33.7</b> GDP per capita (Million IDR)
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### Governance

**SCORE: 0.312** **RANK: 32/34 PROVINCES ASSESSED**

<b>416</b> Crime rate per 100,000 population	<b>53.7%</b> Crime clearance rate	<b>83.6%</b> Voter participation
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### Environmental Capacity

**SCORE: 0.731** **RANK: 5/34 PROVINCES ASSESSED**

**17.7%**  
Protected area



### Infrastructure Capacity

**SCORE: 0.563** **RANK: 14/34 PROVINCES ASSESSED**



### Health Care Capacity

**SCORE: 0.622** **RANK: 6/34 PROVINCES ASSESSED**

<b>21</b> Hospital beds per 10,000 people	<b>8.17</b> Physicians per 10,000 people	<b>16.22</b> Nurses and midwives per 10,000 people	<b>18.3%</b> Time to public hospital (over 1 hour)	<b>52.8%</b> Immunization rate (children under 5)	<b>59.4%</b> Health care accreditation rate	<b>76.1%</b> Population covered by health insurance
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### Transportation Capacity

**SCORE: 0.433** **RANK: 14/34 PROVINCES ASSESSED**

<b>0.32</b> Road and rail density	<b>34.73</b> Average distance to port or airport
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### Communications Capacity

**SCORE: 0.630** **RANK: 16/34 PROVINCES ASSESSED**

<b>67.9%</b> Mobile phone ownership	<b>0.7%</b> Households with Fixed Phones
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### Energy Capacity

**SCORE: 0.567** **RANK: 14/34 PROVINCES ASSESSED**

<b>99.2%</b> Households served by state electricity	<b>0.4%</b> Percentage of total national electricity generated in province	<b>45.7</b> Electricity generation GWh per 100,000 Population	<b>75.3%</b> Households with gas for cooking
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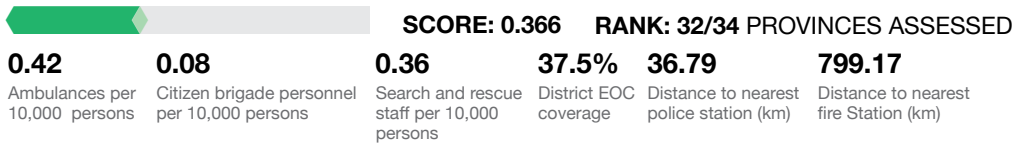
# DISASTER MANAGEMENT CAPABILITIES (DMC)

**RANK: 13 / 34 PROVINCES ASSESSED**  
**SCORE: 0.431**

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



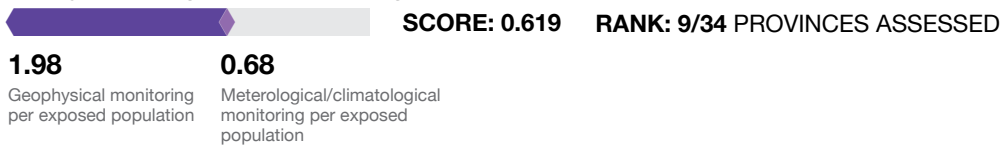
## Emergency Services



## Mass Care Support



## Early Warning and Monitoring





## RESILIENCE (R)

**RANK: 13 / 34 PROVINCES ASSESSED**  
**SCORE: 0.532**

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

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



**Vulnerable Health Status**



**Environmental Stress**



**Governance**



**Economic Capacity**



**Emergency Services**



**Mass Care Support**



## HAZARD-SPECIFIC RISK (HSR)



**Earthquake**

**RANK: 14 / 34 PROVINCES ASSESSED**  
**SCORE: 0.269**



**Tsunami**

**RANK: 13 / 34 PROVINCES ASSESSED**  
**SCORE: 0.254**



**Flood**

**RANK: 29 / 34 PROVINCES ASSESSED**  
**SCORE: 0.142**



**Flash Flood**

**RANK: 11 / 34 PROVINCES ASSESSED**  
**SCORE: 0.244**



**Landslide**

**RANK: 17 / 34 PROVINCES ASSESSED**  
**SCORE: 0.207**



**Volcano**

**RANK: 2 / 34 PROVINCES ASSESSED**  
**SCORE: 0.340**



**Drought**

**RANK: 7 / 34 PROVINCES ASSESSED**  
**SCORE: 0.281**



**Wildfire**

**RANK: 30 / 34 PROVINCES ASSESSED**  
**SCORE: 0.154**



**Extreme Weather**

**RANK: 20 / 34 PROVINCES ASSESSED**  
**SCORE: 0.238**



## MULTI-HAZARD RISK (MHR)

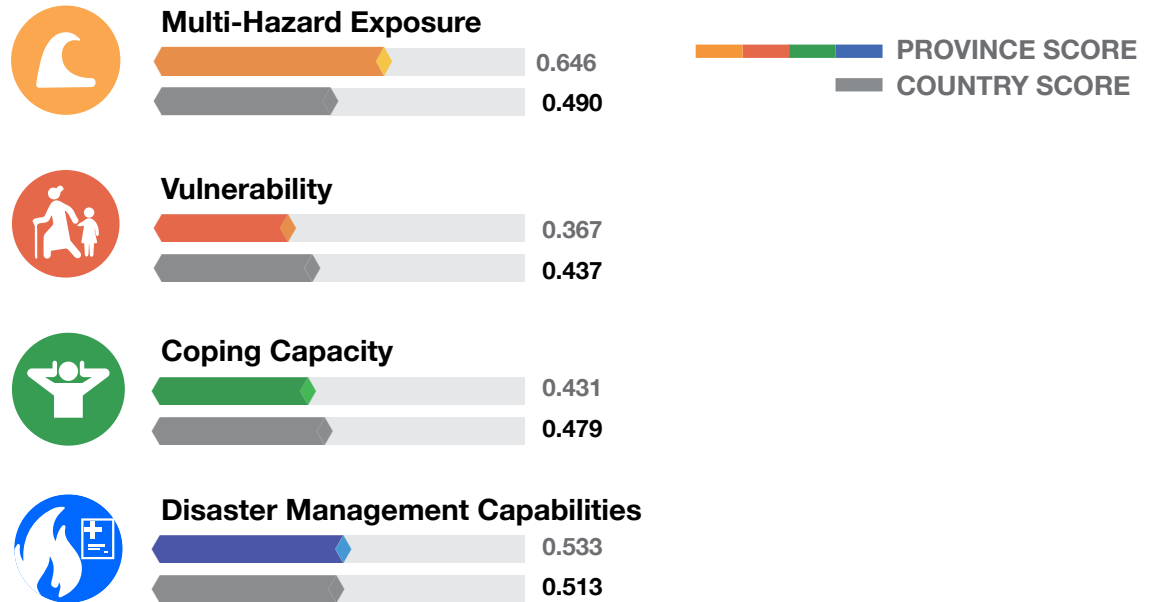
**11 / 34**

RANK WITHIN PROVINCES  
Score: 0.512



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

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





# SULAWESI UTARA RECOMMENDATIONS

# 1

## Vulnerable Health Status

Sulawesi Utara has the 9th highest ranking for Vulnerable Health Status and the 4th highest Infectious Disease ranking with some of the higher disease rates for tuberculosis, dengue, leprosy, HIV AIDS and malaria. The province also has high rates of hazard exposure to earthquakes, drought, extreme weather and flooding, all of which can exacerbate health risks.

Strengthen programs focused on disease prevention and health promotion to counter preventable diseases through protective measures (e.g., vaccination and mosquito nets) and good hygiene practices.

Enhance water management practices to protect water supplies (watershed and catchment areas), reduce waste, and reduce or eliminate mosquito-borne disease vectors.

# 2

## Environmental Stress

Sulawesi Utara has the 9th highest ranking for Environmental Stress, with 18% of the land area prone to severe erosion rates.

Strengthen environmental policies and regulations related to industrial pollution and agricultural land use to implement protective measures against land degradation due to poor management practices (e.g., disposal of industrial waste, agricultural runoff and overgrazing of livestock). Strong environmental policies will support economic growth and protect the growing tourism industry, centered around the province's scenic and natural beauty.

## SULAWESI UTARA RECOMMENDATIONS

# 3

### Governance

Sulawesi Utara has the 3rd lowest Governance ranking with the highest Crime Rate per 100,000 (416 persons) in the country. Findings show that responsiveness of police personnel is hampered by distance. The average Distance to a police station in the province is 37 km.

Strengthen government institutions to improve systems focused on the promotion of accountability and rule of law.

Garner support for public security through increased law enforcement and surveillance, youth education and personal safety programs.

# 4

### Economic Capacity

Sulawesi Utara ranks 20th for overall Economic Capacity. While Average Monthly Income (3.3 million IDR) is the 9th highest in Indonesia, the province has the 4th lowest Labor Force Participation rate (63.8%).

Promote initiatives that create jobs, diversify the economy, generate public revenue, and build the entrepreneurial and technical skills of small business owners and household enterprises.

## SULAWESI UTARA RECOMMENDATIONS

### 5

#### Emergency Services

Findings show that Sulawesi Utara has the 3rd lowest ranking for overall Emergency Services capabilities. The Average Distance to a Fire Station is nearly 800 km away.

Build institutional and operational capacities at district levels through investments in emergency management and emergency services, including establishment of emergency operations centers, police and fire stations, and ambulance service.

### 6

#### Mass Care Support

Sulawesi Utara ranks 9th for overall Mass Care Support. Greater numbers of Emergency Shelters and Disaster Equipment to support mass care would boost capabilities to serve the population in the aftermath of a disaster. Given the general poor health status and prevalence of disease in the provincial population, logistical planning should anticipate the increased need for medical supplies and care equipment for populations with poor health.

**Better solutions.  
Fewer disasters.**

# Safer world.

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