

## INDONESIA SULAWESI SELATAN

## NDPBA PROVINCE PROFILE



©2020 Pacific Disaster Center

## SULAWESI SELATAN

#### **CAPITAL: MAKASSAR**

Area: 46,717 km<sup>2</sup>

Sulawesi Selatan (South Sulawesi) is the sixth most populous province in Indonesia, and via its capital city, Makassar, plays a critical role connecting eastern and western



parts of the country. In collaboration with UN, WHO and NGOs, stakeholders in the region are focused on DRR initiatives to reduce risks posed by hazards frequenting the province and boost low levels of coping capacity and resilience. Analyses indicate that enhancements to governance, economic capacity and information access will bode well for future DRR, SDG and CCA endeavours.

#### **RISK AND VULNERABILITY** COMPONENT SCORE



MULTI-HAZARD RISK (MHR) - Moderate Score: 0.488 • Rank: 19/34

RESILIENCE (R) - LowScore: 0.502 · Rank: 21/34

MILL TI-HAZARD EXPOSINE (MHE) - I



MULTI-HAZARD EXPOSURE (MHE) - Moderate Score: 0.456 · Rank: 18/34



VULNERABILITY (V) - Moderate Score: 0.433 · Rank: 18/34



**COPING CAPACITY (CC) - Very Low** Score: 0.389 • Rank: 29/34



DISASTER MANAGEMENT CAPABILITIES (DMC) - High

Score: 0.549 · Rank: 10/34





Population (2020 Projected) **8,928,000** 

Population in Poverty **8.6%** 



Adult Literacy Rate 92.5%



Access to improved water 89.4%



Average life expectancy

70.4 years

# MULTI-HAZARD EXPOSURE (MHE)

RANK: 18 / 34 PROVINCES SCORE: 0.456



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



**25% 2**,147,469 \$27.1 Billion

Earthquake



### 41%

Flood

**3**,526,299 \$55.66 Billion



Landslide

1,001,484
\$10.2 Billion



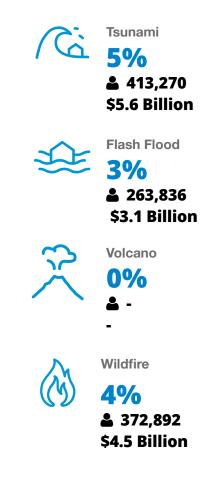
**18% &** 1,519,243

Drought

\$18.8 Billion



Extreme Weather 98% 8,425,705 \$111.1 Billion





## VULNERABILITY (V)

#### **RANK: 18 / 34 PROVINCES ASSESSED SCORE: 0.433**

Vulnerability in Sulawesi Selatan is primarily driven by Information Access Vulnerability and Environmental Stress. The bar charts indicate the socioeconomic themes contributing to the province's overall Vulnerability score.



#### **Environmental Stress**

26.6% Land susceptible to severe erosion

Livestock Density (per sq km)

70.61

2528.3 Net Deforestation (hectares per year)

SCORE: 0.395



#### **Vulnerable Health Status**

70.43 25 Life expectancy (years)

Infant mortality rate (per 1,000 live births)

1.1% 24.1 Dengue incidence per 100,000 Households with catastrophic health

3.76 Measles incidence per 100.000 population

schooling

158.93

Maternal

mortality ratio

0.09 Malaria incidence per 100.000 population

10.0%

5) Wasting

Children (under

38.94 HIV & AIDS incidence per 100,000 population

5.5%

Unmet health

care needs

RANK: 17/34 PROVINCES ASSESSED

RANK: 28/34 PROVINCES ASSESSED

10.2%

Disasbility

357

TB case

notification

population

per 100,000

1.18

Prevalence of Leprosy per 10,000 population

Households with limited

access to health facility

6.8%



#### **Clean Water Vulnerability**

SCORE: 0.236 RANK: 30/34 PROVINCES ASSESSED

SCORE: 0.528 RANK: 6/34 PROVINCES ASSESSED

89.4% Households with improved water

expenditure

87.8% Households with improved sanitation



#### Information Access Vulnerability

98.1%

Net primary school

population

92.5% Adult literacy rate

SCORE: 0.540 RANK: 11/34 PROVINCES ASSESSED 8.26 72.6% Average years of Household using internet

enrollment rate

	ECO
451	

#### onomic Constraints

SCORE: 0.490 RANK: 9/34 PROVINCES ASSESSED 5.0% 51.3 8.6% 0.389 GINI ratio Unemployment Age dependency Poverty rate rate ratio



#### Gender Inequality

SCORE: 0.508 RANK: 14/34 PROVINCES ASSESSED 0.97 0.63 1.06 19.1% Female to male Female to male Female to male Percent female labor ratio secondary school literacy rate seats in enrollment ratio government

SCORE: 0.332



#### **Population Pressures**

1.1% 3.6% Average annual Average annual total population urban population change change

```
PDC Global
```

**PROVINCIAL PROFILE** 

# 

## **COPING CAPACITY (CC)**

#### RANK: 29 / 34 PROVINCES ASSESSED SCORE: 0.389

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

\$\$	Economic Cap	acity	SCORE: 0.231	RANK: 29/34 PROVIN	ICES ASSESSE	D	
	62.9% Labor force participation	<b>2,855,170</b> Average monthly income (IDR)	<b>35.5</b> GDP per capita (Million IDR)				
	Governance						
	055	53.6%	SCORE: 0.393 81.6%	RANK: 29/34 PROVIN	ICES ASSESSE	D	
	<b>255</b> Crime rate per 100,000 population	Crime clearance rate	Voter participation				
	Environmental Capacity						
	<b>5.9%</b> Protected area		SCORE: 0.227	RANK: 23/34 PROVIN	CES ASSESSEI	)	
	Infrastructure Capacity						
	SCORE: 0.599 RANK: 11/34 PROVINCES ASSESSED					C	
	Health Care Capacity SCORE: 0.584 RANK: 9/34 PROVINCES ASSESSED						
		sicians per Nurses	-	ublic hospital Immunization ra		74.9% Population covered by health insurance	
	Transportation Capacity SCORE: 0.518 RANK: 11/34 PROVINCES ASSESSED						
	<b>0.51</b> Road and rail density	<b>31.39</b> Average or airport	distance to port				
	Communications Capacity SCORE: 0.591 RANK: 22/34 PROVINCES ASSESSED						
	65.1% Mobile phone ownership	0.6% Househol	lds with Fixed Phones				
	Energy Capacity SCORE: 0.703 RANK: 10/34 PROVINCES ASSESSED						
		Capacity St	CORE: 0.703 RA	INK: 10/34 PROVINCE	S ASSESSED		
	96.8% Households served by st electricity	2.9% tate Percenta		91.03 Electricity generation GWh per 100,000 Population	S ASSESSED 88.5% Households with g cooking	as for	



## DISASTER MANAGEMENT **CAPABILITIES (DMC)**

**RANK: 10 / 34 PROVINCES ASSESSED SCORE: 0.389** 

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



#### **Emergency Services**

SCORE: 0.608 RANK: 14/34 PROVINCES ASSESSED 0.32 0.27 0.12 91.7% 20.22 71.64 Search and rescue District EOC Distance to nearest Distance to nearest Ambulances per Citizen brigade personnel 10,000 persons per 10,000 persons staff per 10,000 coverage police station (km) fire Station (km) persons

SCORE: 0.737



#### Mass Care Support

144.58 0.27 Distance to nearest disaster 10,000 persons stockpile (km)

#### 1.51 Vehicle euipment per Shelter equipment per 10,000 persons

0.23 Communications equipment per 10,000 per 10,000 persons persons

4.23 **Emergency Shelters** per 10,000 persons



#### **Early Warning and Monitoring**

SCORE: 0.303

**RANK: 28/34 PROVINCES ASSESSED** 

0.3

**RANK: 1/34 PROVINCES ASSESSED** 

Support equipment

Geophysical monitoring per exposed population

0.26

#### 0.43

Meterological/climatological monitoring per exposed population



## **RESILIENCE (R)**

#### RANK: 21 / 34 PROVINCES ASSESSED SCORE: 0.502

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

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













Information Access Vulnerability Environmental Stress

ntal Economic Capacity Governance

Early Warning and Monitoring

g Emergency ng Services



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

Earthquake	RANK: 22 / 34 PROVINCES ASSESSED SCORE: 0.204
Tsunami	RANK: 8 / 34 PROVINCES ASSESSED SCORE: 0.309
Flood	RANK: 11 / 34 PROVINCES ASSESSED SCORE: 0.267
Flash Flood	RANK: 12 / 34 PROVINCES ASSESSED SCORED.217
Landslide	RANK: 5/34 PROVINCES ASSESSED SCORED.326
Volcano	RANK: 25 / 34 PROVINCES ASSESSED SCORE: 0.123
Drought	RANK: 25 / 34 PROVINCES ASSESSED SCORED.181
Wildfire	RANK: 20 / 34 PROVINCES ASSESSED SCORE: 0.204
Extreme Weather	RANK: 6 / 34 PROVINCES ASSESSED SCORE: 0.308

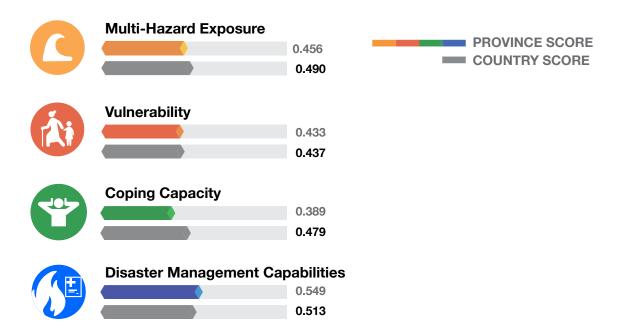


## **MULTI-HAZARD RISK (MHR)**

**19 / 34** RANK WITHIN PROVINCES Score: 0.488

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

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



## **SULAWESI SELATAN RECOMMENDATIONS**

#### Information Access Vulnerability

Sulawesi Selatan ranks 11th for overall Information Access Vulnerability, driven by the 4th lowest Adult Literacy Rate (92.45%). The Average Years of Schooling for the province is 8.26 years. 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, including physical access to education, especially in rural areas through infrastructure improvements (e.g., roads, electricity and telecommunication services). Implement community outreach and education programs focused on hazard awareness, disaster preparedness, and health and safety practices to build community resilience.



#### **Environmental Stress**

Sulawesi Selatan has the 6th highest overall Environmental Stress in the country. Nearly 27% of the province is subject to Severe Erosion rates of >180 tons per hectare per year. In addition, the province has the 9th highest Livestock Density (70.61 animals per square km). High densities of livestock can lead to overgrazing of pastures, potentially causing desertification in drought-prone areas and significant soil loss in places susceptible to flooding. Flooding in areas where high animal densities are in close proximity to fresh water sources can pose risks to human health.

Agriculture, forestry and fisheries account for a substantial part of Sulawesi Selatan's economy. Improve access of agricultural workers and farmers to agricultural extension services offering best practices in farming, horticulture and animal husbandry that promote sustainable practices such as soil and water conservation and protection. Promote public-private partnerships to monitor and explore solutions to environmental problems facing the province, including those that are exacerbated by hazard impacts.

## **SULAWESI SELATAN RECOMMENDATIONS**



#### **Economic Capacity**

Sulawesi Selatan has the 6th lowest overall Economic Capacity in the country, and the lowest Labor Force Participation rate (62.9%). Increase access to financing and support structures (e.g. microfinance services and loans) to build the capacity of farmers, small businesses and household enterprises to enhance production and increase household incomes. Boost efficiency of financial sector systems to streamline access to credit and processing of loans for informal sector enterprises. Establish programs that gear education toward labor market needs to promote job creation and employment opportunities for youth.

#### Governance

Findings show Sulawesi Selatan has the 6th lowest Governance ranking in the country, with the 4th highest Crime Rate (255 per 100,000 persons). The Crime Clearance Rate and Voter Participation Rate in the province are low. Strengthen support for public security through increased law enforcement and surveillance.

Implement community youth education and personal safety programs.

## **SULAWESI SELATAN RECOMMENDATIONS**



#### **Early Warning and Monitoring**

Sulawesi Selatan has the 7th lowest Early Warning and Monitoring capabilities in the country, representing limitations in monitoring both geophysical and meteorological and climaterelated hazards. Given the lower literacy levels in the province, efforts by disaster managers to make warning messages as understandable as possible would ensure that even those who are illiterate or who have lower levels of education can take life-saving action.



#### **Emergency Services**

Sulawesi Selatan ranks 14th for overall Emergency Services capabilities. Increasing the number of ambulances and trained emergency medical technicians, as well as trained Search and Rescue staff, would bolster capabilities in the province.



**Better solutions.** Fewer disasters.

# Scifer

**1305 N Holopono Street** Suite 2, Kihei, HI 96753

P: (808) 891-0525 F: (808) 891-0526



@PDC\_Global



/PDCGlobal





ndpba@pdc.org