



THE PHILIPPINES

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# KALINGA

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## NDPBA PROVINCE PROFILE

# THE PHILIPPINES

## KALINGA

### CAPITAL: CITY OF TABUK

Area: 3,282 km<sup>2</sup>

Kalinga is a landlocked province in the Philippines situated within the Cordillera Administrative Region in Luzon. Kalinga borders Mountain Province to the south, Abra to the west, Isabela to the east, Cagayan to the northeast, and Apayao to the north. Kalinga and Apayao are the result of the 1995 partitioning of the former province of Kalinga-Apayao which was seen to better service the respective needs of the various indigenous peoples in the area. The topography of the region is rugged and sloped. The economy is largely agricultural with the main products being rice, corn, coffee, and bananas.



## RISK AND VULNERABILITY COMPONENT SCORE



**MULTI-HAZARD RISK (MHR) - Low**  
Score: 0.481 • Rank: 56/84



**RESILIENCE (R) - Medium**  
Score: 0.557 • Rank: 48/84



**MULTI-HAZARD EXPOSURE (MHE) - Low**  
Score: 0.557 • Rank: 56/84



**VULNERABILITY (V) - Low**  
Score: 0.401 • Rank: 56/84



**COPING CAPACITY (CC) - Low**  
Score: 0.516 • Rank: 64/84



Population (2018)  
**236,690**



Population in Poverty  
**9.3%**



Literate population  
**96.5%**



Access to improved water  
**98.5%**



Average life expectancy  
**67.6 years**

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



## MULTI-HAZARD EXPOSURE (MHE)

RANK: 56 / 84 PROVINCES  
SCORE: 0.557



MHE  
0.557

Raw MHE  
0.423

Relative MHE  
0.692

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



Earthquake

**100%**

**236,690**

**\$1.3 Billion**



Tsunami

-

-

-



Flood

**16%**

**37,787**

**\$251.3 Million**



Liquefaction

**34%**

**80,213**

**\$458.9 Million**



Landslide

**38%**

**89,785**

**\$377.8 Million**



Volcano

**<1%**

**53**

**\$1.2 Million**



Drought

**24%**

**55,937**

**\$578 Million**



Wildfire

**29%**

**68,964**

**\$458.9 Million**



Storm Surge

-

-

-



Typhoon Winds

**100%**

**236,690**

**\$1.3 Billion**




## VULNERABILITY (V)

**RANK: 56 / 84 PROVINCES ASSESSED**  
**SCORE: 0.401**

Vulnerability in Kalinga is primarily driven by Environmental Stress and Information Access Vulnerability. The bar chart indicates the socioeconomic themes contributing to the province's overall Vulnerability score.



### Environmental Stress

0  1 **SCORE: 0.671** **RANK: 5/84 PROVINCES ASSESSED**

**2.16** Livestock density  
**103.99** Barren land (per 10k hectares)  
**-1.45%** Forest cover change



### Vulnerable Health Status

0  1 **SCORE: 0.463** **RANK: 35/84 PROVINCES ASSESSED**

**2.2%** Malnutrition among children (0 to 5 years old)  
**10.23** Infant mortality rate (per 1k live births)  
**24.94** Maternal mortality rate (per 100k live births)  
**67.55** Life expectancy  
**550** Disability (per 100k persons)

**14.5** Tuberculosis mortality rate (per 100k persons)  
**0** HIV mortality rate (per 100k persons)  
**3.6** Intestinal disease mortality rate (per 100k persons)  
**2.3** Other arthropod-borne viral fevers and viral hemorrhagic fever mortality rate (per 100k persons)



### Clean Water Vulnerability

0  1 **SCORE: 0.427** **RANK: 41/84 PROVINCES ASSESSED**

**98.5%** Households with improved safe water source  
**67.8%** Households with sanitary toilet facility



### Information Access Vulnerability

0  1 **SCORE: 0.54** **RANK: 27/84 PROVINCES ASSESSED**

**96.49%** Literacy rate (age 10 and older)  
**115.84%** Gross primary school enrollment rate  
**1.50%** Internet Access  
**64.16%** Households with radio  
**53.38%** Households with television



### Economic Constraints



SCORE: 0.33

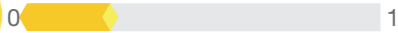
RANK: 51/84 PROVINCES ASSESSED

**0.63**  
Economic  
dependency  
ratio

**9.32%**  
Poverty  
incidence



### Gender Inequality



SCORE: 0.242

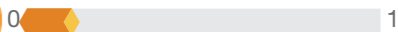
RANK: 77/84 PROVINCES ASSESSED

**1.04**  
Female to male  
secondary school  
enrollment Rate

**0.58**  
Labor force  
participation ratio



### Population Pressures



SCORE: 0.13

RANK: 84/84 PROVINCES ASSESSED

**1.02**  
Population  
growth rate  
(2010-2015)

**-1.33**  
Average annual  
urban population  
growth rate

**0.6%**  
Informal settlers




# COPING CAPACITY (CC)

**RANK: 64 / 84 PROVINCES ASSESSED**  
**SCORE: 0.516**

Kalinga exhibits weaker Coping Capacity in the areas of Transportation Capacity and Communications Capacity. The bar chart indicates the socioeconomic themes contributing to the province's overall Coping Capacity score.



## Economic Capacity

0  1 **SCORE: 0.555** **RANK: 29/84 PROVINCES ASSESSED**

**0.88**

Purchasing power of the peso

**58.45%**


Labor force participation rate

**3944.18**

Local government annual regular income per capita (Philippine Peso)



## Governance

0  1 **SCORE: 0.464** **RANK: 73/84 PROVINCES ASSESSED**

**85.3%**

Voter participation

**9.2**


Organized violence (per 100k persons)

**2.41%**

Garbage pickup



## Environmental Capacity

0  1 **SCORE: 0.509** **RANK: 22/84 PROVINCES ASSESSED**

**1.18**

Protected areas (per 1k ha)

**60.1%**

Forest reserves



### Infrastructure Capacity

0 1 **SCORE: 0.53** **RANK: 53/84** PROVINCES ASSESSED



### Health Care Capacity **SCORE: 0.571** **RANK: 23/84** PROVINCES ASSESSED

<b>7.86</b>	<b>4.41</b>	<b>53.05%</b>	<b>3.8</b>
Hopital beds (per 10k people)	Physicians per 10,000 people	Vaccination coverage	Average distance to nearest hospital (km)



### Transportation Capacity **SCORE: 0.404** **RANK: 61/84** PROVINCES ASSESSED

<b>0.40</b>	<b>17.45</b>
Road density (km per sq. km)	Average distance to nearest port (km)



### Communications Capacity **SCORE: 0.433** **RANK: 71/84** PROVINCES ASSESSED

<b>0.4%</b>	<b>88.8%</b>
Households with a landline	Mobile coverage



### Energy Capacity **SCORE: 0.64** **RANK: 39/84** PROVINCES ASSESSED

<b>73.9%</b>	<b>23.9%</b>
Households with electricity	Households with gas



### Emergency Services Capacity **SCORE: 0.651** **RANK: 19/84** PROVINCES ASSESSED

<b>84.24</b>	<b>3.71</b>	<b>2.78</b>
Evacuation centers (per 100k persons)	Fire Stations (per 100k persons)	Fire Trucks (per 100k persons)



## RESILIENCE (R)

**RANK: 48 / 84 PROVINCES ASSESSED**  
**SCORE: 0.557**

Kalinga's score and ranking are due to Low Vulnerability combined with Low Coping Capacity scores.

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



**Environmental Stress**



**Information Access Vulnerability**



**Transportation Capacity**



**Communications Capacity**



## HAZARD-SPECIFIC RISK (HSR)



**Earthquake**

**RANK: 45 / 84 PROVINCES ASSESSED**  
**SCORE: 0.259**



**Tsunami**

**RANK: 54 / 84 PROVINCES ASSESSED**  
**SCORE: 0**



**Flood**

**RANK: 65 / 84 PROVINCES ASSESSED**  
**SCORE: 0.069**



**Liquefaction**

**RANK: 57 / 84 PROVINCES ASSESSED**  
**SCORE: 0.135**



**Landslide**

**RANK: 19 / 84 PROVINCES ASSESSED**  
**SCORE: 0.277**



**Volcano**

**RANK: 63 / 84 PROVINCES ASSESSED**  
**SCORE: 0.048**

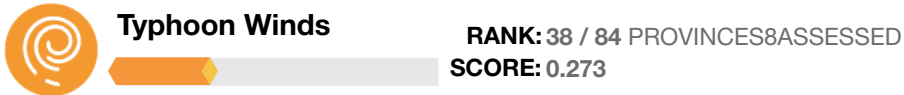
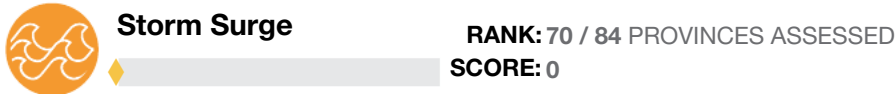
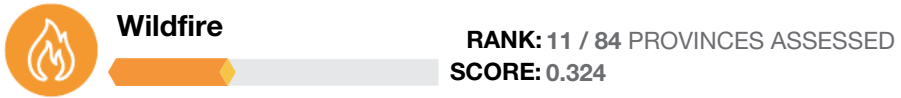


**Drought**

**RANK: 36 / 84 PROVINCES ASSESSED**  
**SCORE: 0.232**



**(HAZARD-SPECIFIC RISK CONTINUED)**



**MULTI-HAZARD RISK (MHR)**

**56 / 84**

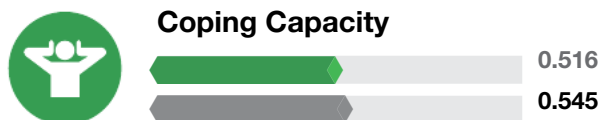
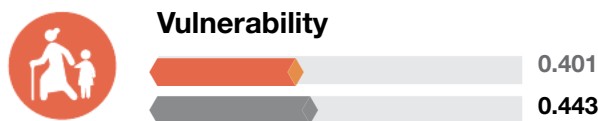
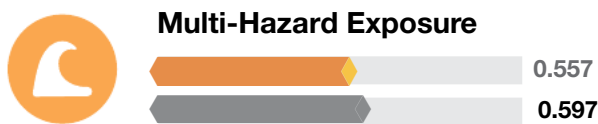
RANK WITHIN PROVINCES  
Score: 0.481



Kalinga's score and ranking are due to Low Multi-hazard exposure combined with Low Vulnerability and Low Coping Capacity scores.

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

PROVINCE SCORE  
COUNTRY SCORE



# KALINGA RECOMMENDATIONS

## 1

### Environmental Stress

- In Kalinga, environmental stress is a major driver of vulnerability. Kalinga ranks 5th highest for environmental stress in the Philippines. Focus efforts on increasing forest cover, decreasing areas classified as barren land and promoting sustainable agriculture.
- The population of Kalinga are exposed to drought, flood and landslide hazards. Continue reforestation efforts that are focused on sloped terrain and critical watersheds. Work with local farmers and diverse partners to enhance soil and water conservation throughout society.

## 2

### Information Access Vulnerability

- In Kalinga, many homes lack access to radios, television and internet. Expand efforts to increase household access to communication devices and educational opportunities. Investments in communication infrastructure should parallel efforts at the household level, as results show that Kalinga has low communications capacity.
- Ensure emergency management plans consider the limitations in access and availability of communications infrastructure. Work with private and public partners to ensure communities are able to receive critical information and communicate their needs during a disaster

## 3

### Transportation Capacity

- Road density in Kalinga is 0.4 kilometers per square, the 7th highest in the Philippines. Since Kalinga is a landlocked province, focus efforts on increasing road density .
- Continue airport and road enhancement projects through private-public partnerships. Advocate for transportation network projects through the Department of Public Works to increase evacuation and resource distribution routes, increase access to markets and enhance social connectivity.
- Ensure that emergency evacuation routes and plans include all transportation projects. Work with partners including HOTOSM and others to ensure mapping of new routes and resources are readily available in the event of a disaster.

# 4

## Communications Capacity

- Similar to other provinces, in Kalinga less than 1% of households have access to landlines. The population of Kalinga is highly exposed to multiple hazards, including earthquakes and typhoon winds. Invest in diverse communications infrastructure that is reinforced to withstand hazards and adds redundancy to the communication network.
- Findings show that the population in Kalinga are also vulnerable due to limitations in access to information. Improvements to communications infrastructure should be paralleled by increased households' access to telecommunication devices. Expand private and public partnerships in the meantime to plan emergency communications.

**Better solutions.  
Fewer disasters.**

# Safer world.

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