



THE PHILIPPINES

CATANDUANES

NDPBA PROVINCE PROFILE

THE PHILIPPINES

CATANDUANES

CAPITAL: VIRAC

Area: 1,492 km²

Catanduanes is an island province located in the Bicol Region of Luzon in the Philippines. The province lies to the east of Camarines Sur across Maqueda Channel. The province comprises Catanduanes Island, the Panay Island, Lete Island, Palumbanes group of islands a few other surrounding islets and rocks. The province is also home to various mollusk fossil sites, notably for the second oldest ammonite site in Philippine history. The sites also possess certain species of ammonites that can't be found anywhere else in Southeast Asia. The province contains almost 400 kilometers of jagged coastline and bays. The economy is based largely on agriculture, tourism, and fishing. Catanduanes is also located within the typhoon belt and recently was threatened by Typhoon Ambo.



RISK AND VULNERABILITY COMPONENT SCORE



MULTI-HAZARD RISK (MHR) - Low
Score: 0.475 • Rank: 61/84



RESILIENCE (R) - High
Score: 0.581 • Rank: 31/84



MULTI-HAZARD EXPOSURE (MHE) - Medium
Score: 0.586 • Rank: 48/84



VULNERABILITY (V) - High
Score: 0.466 • Rank: 33/84



COPING CAPACITY (CC) - Very High
Score: 0.629 • Rank: 12/84



Population (2018)
250,142



Population in Poverty
14.4%



Literate population
98.8%



Access to improved water
74.0%



Average life expectancy
67.1 years

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



MULTI-HAZARD EXPOSURE (MHE)

RANK: 48 / 84 PROVINCES
SCORE: 0.586



MHE
0.586

Raw MHE
0.408

Relative MHE
0.764

ESTIMATED POPULATION AND CAPITAL EXPOSED TO EACH HAZARD:



Earthquake

93%

232,341

\$851.6 Million



Tsunami

39%

98,179

\$302.7 Million



Flood

50%

124,829

\$513.9 Million



Liquefaction

22%

56,173

\$196.1 Million



Landslide

31%

77,964

\$238.2 Million



Volcano

<1%

682

\$2.5 Million



Drought

17%

43,083

\$105.4 Million



Wildfire

-

-

-



Storm Surge

37%

91,321

\$308.5 Million



Typhoon Winds

100%

250,142

\$904.7 Million



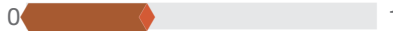
VULNERABILITY (V)

RANK: 33 / 84 PROVINCES ASSESSED
SCORE: 0.466

Vulnerability in Catanduanes is primarily driven by Vulnerable Health Status and Clean Water Access Vulnerability. The bar chart indicates the socioeconomic themes contributing to the province's overall Vulnerability score.



Environmental Stress

0  1 **SCORE: 0.344** **RANK: 68/84** PROVINCES ASSESSED

0.8 Livestock density
13.7 Barren land (per 10k hectares)
3.62% Forest cover change



Vulnerable Health Status

0  1 **SCORE: 0.586** **RANK: 8/84** PROVINCES ASSESSED

11.2% Malnutrition among children (0 to 5 years old)
17.79 Infant mortality rate (per 1k live births)
172.18 Maternal mortality rate (per 100k live births)
67.14 Life expectancy
392 Disability (per 100k persons)
35.2 Tuberculosis mortality rate (per 100k persons)
0 HIV mortality rate (per 100k persons)
9.7 Intestinal disease mortality rate (per 100k persons)
0.7 Other arthropod-borne viral fevers and viral hemorrhagic fever mortality rate (per 100k persons)



Clean Water Vulnerability

0  1 **SCORE: 0.576** **RANK: 18/84** PROVINCES ASSESSED

74.0% Households with improved safe water source
85.5% Households with sanitary toilet facility




Information Access Vulnerability

0  1 **SCORE: 0.467** **RANK: 44/84** PROVINCES ASSESSED

98.79% Literacy rate (age 10 and older)
117.69% Gross primary school enrollment rate
4.58% Internet Access
48.83% Households with radio
62.35% Households with television



Economic Constraints

0  1 **SCORE: 0.521** **RANK: 25/84** PROVINCES ASSESSED

0.72
Economic
dependency
ratio

14.39%
Poverty
incidence



Gender Inequality


0  1 **SCORE: 0.341** **RANK: 63/84** PROVINCES ASSESSED

1.05
Female to male
secondary school
enrollment Rate

0.51
Labor force
participation ratio



Population Pressures

0  1 **SCORE: 0.428** **RANK: 35/84** PROVINCES ASSESSED

1.11
Population
growth rate
(2010-2015)

21.49
Average annual
urban population
growth rate

1.3%
Informal settlers




COPING CAPACITY (CC)

RANK: 12 / 84 PROVINCES ASSESSED
SCORE: 0.629

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



Economic Capacity

0  1 **SCORE: 0.672** **RANK: 13/84 PROVINCES ASSESSED**

0.91

Purchasing power of the peso

65.93%


Labor force participation rate

2880.25

Local government annual regular income per capita (Philippine Peso)



Governance

0  1 **SCORE: 0.757** **RANK: 8/84 PROVINCES ASSESSED**

87.7%

Voter participation

4.1

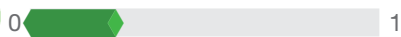
Organized violence (per 100k persons)

18.56%

Garbage pickup



Environmental Capacity

0  1 **SCORE: 0.246** **RANK: 65/84 PROVINCES ASSESSED**

0

Protected areas (per 1k ha)

8.6%

Forest reserves



Infrastructure Capacity

0 1 **SCORE: 0.585** **RANK: 31/84** PROVINCES ASSESSED



Health Care Capacity **SCORE: 0.625** **RANK: 13/84** PROVINCES ASSESSED

10.1	2.93	71.17%	4.01
Hopital beds (per 10k people)	Physicians per 10,000 people	Vaccination coverage	Average distance to nearest hospital (km)



Transportation Capacity **SCORE: 0.515** **RANK: 38/84** PROVINCES ASSESSED

0.81	17.49
Road density (km per sq. km)	Average distance to nearest port (km)



Communications Capacity **SCORE: 0.583** **RANK: 56/84** PROVINCES ASSESSED

0.6%	97.1%
Households with a landline	Mobile coverage



Energy Capacity **SCORE: 0.667** **RANK: 35/84** PROVINCES ASSESSED

80.3%	19.3%
Households with electricity	Households with gas



Emergency Services Capacity **SCORE: 0.532** **RANK: 30/84** PROVINCES ASSESSED

2.3	3.76	4.51
Evacuation centers (per 100k persons)	Fire Stations (per 100k persons)	Fire Trucks (per 100k persons)



RESILIENCE (R)

RANK: 31 / 84 PROVINCES ASSESSED
SCORE: 0.581

Catanduanes's score and ranking are due to High Vulnerability combined with Very High Coping Capacity scores.

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



Vulnerable Health Status



Clean Water Access Vulnerability



Transportation Capacity



Emergency Services Capacity



HAZARD-SPECIFIC RISK (HSR)



Earthquake

RANK: 61 / 84 PROVINCES ASSESSED
SCORE: 0.216



Tsunami

RANK: 4 / 84 PROVINCES ASSESSED
SCORE: 0.395



Flood

RANK: 50 / 84 PROVINCES ASSESSED
SCORE: 0.157



Liquefaction

RANK: 63 / 84 PROVINCES ASSESSED
SCORE: 0.09



Landslide

RANK: 37 / 84 PROVINCES ASSESSED
SCORE: 0.243



Volcano

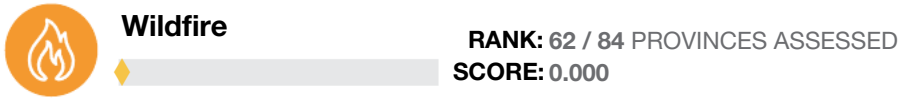
RANK: 54 / 84 PROVINCES ASSESSED
SCORE: 0.075



Drought

RANK: 46 / 84 PROVINCES ASSESSED
SCORE: 0.157

(HAZARD-SPECIFIC RISK CONTINUED)



MULTI-HAZARD RISK (MHR)

61 / 84

RANK WITHIN PROVINCES
Score: 0.475



Catanduanes’s score and ranking are due to Medium Multi-hazard exposure combined with High Vulnerability and Very High Coping Capacity scores.

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

PROVINCE SCORE
COUNTRY SCORE



CATANDUANES RECOMMENDATIONS

1

Vulnerable Health Status

- Catanduanes is ranked highest for maternal and child health vulnerability. Invest in expanded resources for mothers and young children, including nutritious meals and health care access.
- Continue to screen the population for infectious diseases and put in place safety measures to reduce the spread of infectious agents. Expand community engagement and promote healthy lifestyles and actions.

2

Clean Water Access Vulnerability

- In Catanduanes, about 74% of households have access to improved water sources. With vulnerable health status also being a major driver of risk in Catanduanes, investments in clean water infrastructure should be a priority to reduce health risks.
- The results show that the population of Catanduanes is exposed to both drought and flooding hazards. Invest in improved water and sanitation infrastructure to reduce the spread of waterborne illnesses and increase access to water, especially in remote and rural communities.

3

Transportation Capacity

- Continue seaport, 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.
- Civil planners should work with risk assessors to establish resilient transportation network plans. Incorporating environmental mitigation plans, equitable access for the population and hazard exposures.
- 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

Emergency Services Capacity

- In Catanduanes, there are 2.3 evacuation centers per 100,000 persons, which is the 9th lowest in the Philippines. Continue work with partners such as the Philippines Red Cross to expand and enhance emergency service capacity. Increase the number of evacuation centers, fire stations and fire trucks to serve the population and increase emergency service capacity.
- Continue to support evidence-based preparedness and response coordination, including the provision of emergency equipment and supplies. Additionally, increase efforts to have a central database that makes sub-national data on disaster management capabilities and resources more accessible. Increasing transparency through sharing data will ensure efficient and effective coordination at all levels of government, as well as with partners.

**Better solutions.
Fewer disasters.**

Safer world.

**1305 N Holocono Street
Suite 2, Kihei, HI 9675 3**

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



@PDC_Global



/PDCGlobal



www.pdc.prg



ndpba@pdc.org