

DISTRICT RISK PROFILES



**NDPBA**

# **ARGENTINA PROVINCE RISK PROFILES**

**SUBNATIONAL ASSESSMENT  
RESULTS**



# ARGENTINA

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# BUENOS AIRES

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## NDPBA PROVINCE PROFILE



# ARGENTINA

## BUENOS AIRES

### CAPITAL: LA PLATA

Area: 307,004 km<sup>2</sup>

The Buenos Aires Province is located in the Central region of Argentina. Unlike the other Provinces in Argentina, the territorial divisions are called partidos instead of Provinces. The Province has 135 partidos, the Capital being La Plata. The Province borders Uruguay, the Ciudad Autónoma de Buenos Aires and the Provinces of Entre Ríos, Santa Fe, Córdoba, La Pampa and Río Negro. The main economic sources are agriculture, livestock and manufactures.



## RISK AND VULNERABILITY

### COMPONENT SCORE



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

Score: 0.664 • Rank: 1/24



#### RESILIENCE (R) - Moderate

Score: 0.454 • Rank: 14/24



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

Score: 0.901 • Rank: 1/24



#### VULNERABILITY (V) - Very High

Score: 0.616 • Rank: 3/24



#### COPING CAPACITY (CC) - High

Score: 0.524 • Rank: 5/24



Population (2018)

**17,196,396**



Population in Poverty

**35.9%**



Illiterate population

**1.4%**



Access to improved water

**75.1%**



Average life expectancy

**75.2 years**

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



## MULTI-HAZARD EXPOSURE (MHE)

RANK: 1 / 24 PROVINCES

SCORE: 0.901


MHE  
0.901

Raw MHE  
1.0

Relative MHE  
0.802

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



Earthquake

0%

0

-



Flood

10%

1,680,072

\$62.3 Billion



Landslide

14%

2,418,098

\$90.6 Billion



Volcanic Eruption

0%

0

-



Wildfire

13%

2,224,447

\$83.1 Billion



Drought

100%

17,222,427

\$624.4 Billion


Extreme  
Temperature

100%

17,166,043

\$622.8 Billion



## VULNERABILITY (V)

**RANK: 3 / 24 PROVINCES ASSESSED**  
**SCORE: 0.616**

Vulnerability in Buenos Aires is primarily driven by Gender Inequality and Clean Water Access Vulnerability. The bar chart indicates the socioeconomic themes contributing to the province's overall Vulnerability score.



### Environmental Stress



**SCORE: 0.716 RANK: 5/24 PROVINCES ASSESSED**

**13.5%**

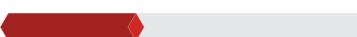
Land  
degradation

**25**

Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status



**SCORE: 0.37 RANK: 12/24 PROVINCES ASSESSED**

**75.2**

Life expectancy  
(years)

**9.9**

Infant mortality  
rate (per 1,000  
live births)

**3.4**

Maternal  
mortality ratio

**12.0%**

Disability

**7.7**

HIV  
incidence

**30.4**

Tuberculosis  
incidence



### Clean Water Vulnerability



**SCORE: 0.76 RANK: 5/24 PROVINCES ASSESSED**

**24.9%**

Households  
without piped  
water

**52.4%**

Households  
without sewage  
services



### Information Access Vulnerability



**SCORE: 0.532 RANK: 12/24 PROVINCES ASSESSED**

**1.4%**

Illiteracy Rate  
(Age 10+)

**79.4%**

Secondary  
education  
completion rate

**89.0%**

School  
enrollment

**2.02**

Education investment per  
capita (million pesos)



### Economic Constraints



**SCORE: 0.645 RANK: 7/24 PROVINCES ASSESSED**

**56.8**

Economic  
dependency  
ratio

**6.0%**

Unemployment  
rate

**35.9%**

Poverty rate



### Gender Inequality



**SCORE: 0.793 RANK: 4/24 PROVINCES ASSESSED**

**2.07**

Female to male  
unemployment

**38.5**

Female judiciary  
seats



### Population Pressures



**SCORE: 0.492 RANK: 14/24 PROVINCES ASSESSED**

**1.1%**

Average Annual  
population  
change



## COPING CAPACITY (CC)

**RANK: 5 / 24 PROVINCES ASSESSED**  
**SCORE: 0.524**

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



### Economic Capacity



**SCORE: 0.554** **RANK: 3/24 PROVINCES ASSESSED**

**1101.7**

Exports per capita  
(USD)

**30.3%**

Work insurance  
coverage

**8.1**

Tax distribution



### Governance



**SCORE: 0.502** **RANK: 13/24 PROVINCES ASSESSED**

**21.9**

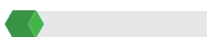
Crime  
prevalence

**82.2%**

Voter  
participation



### Environmental Capacity



**SCORE: 0.067** **RANK: 23/24 PROVINCES ASSESSED**

**5.1%**

Protected area

**3.2%**

Forest cover



### Infrastructure Capacity



**SCORE: 0.639** **RANK: 3/24 PROVINCES ASSESSED**



### Health Care Capacity



**SCORE: 0.495** **RANK: 8/24 PROVINCES ASSESSED**

**36.6**

Hospital beds per  
10,000 people

**29**

Physicians per  
10,000 people

**64.6%**

Health insurance  
coverage

**22.6**

Average distance to nearest  
hospital (km<sup>2</sup>)



### Transportation Capacity



**SCORE: 0.76** **RANK: 2/24 PROVINCES ASSESSED**

**0.43**

Road density (km per sq. km)

**15.2**

Average distance to port (km)

**100.0%**

Proportion of roads improved



### Communications Capacity



**SCORE: 0.495** **RANK: 8/24 PROVINCES ASSESSED**

**45.1%**

Households with Internet

**15.5%**

Television subscriptions per  
100 people



### Energy Capacity



**SCORE: 0.807** **RANK: 5/24 PROVINCES ASSESSED**

**98.9%**

Households with electricity

**65.0%**

Households with gas



### Disaster Management Capabilities



**SCORE: 0.605** **RANK: 4/24 PROVINCES ASSESSED**

**23.9**

Distance to fire  
station (km)

**1.1**

Shelters per 100k  
persons

**53.6%**

Radiobase  
access



## RESILIENCE (R)

RANK: 14 / 24 PROVINCES

SCORE: 0.454

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

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



Gender Inequality



Clean Water Access Vulnerability



Communications Capacity



Health Care Capacity



## HAZARD-SPECIFIC RISK (HSR)



Earthquake

RANK: 13 / 24 PROVINCES ASSESSED

SCORE: 0.000



Wildfire

RANK: 9 / 24 PROVINCES ASSESSED

SCORE: 0.326



Volcano

RANK: 9 / 24 PROVINCES ASSESSED

SCORE: 0.000



Flood

RANK: 3 / 24 PROVINCES ASSESSED

SCORE: 0.401



Landslide

RANK: 3 / 24 PROVINCES ASSESSED

SCORE: 0.327



Drought

RANK: 2 / 24 PROVINCES ASSESSED

SCORE: 0.545



Extreme Temperature

RANK: 1 / 24 PROVINCES ASSESSED

SCORE: 0.545



## MULTI-HAZARD RISK (MHR)

**1 / 24**

 RANK WITHIN PROVINCES  
 Score: 0.664

Buenos Aires's score and ranking are due to Very High Multi-hazard exposure combined with Very High Vulnerability and High Coping Capacity scores.

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



#### Multi-Hazard Exposure


 DISTRICT SCORE  
 COUNTRY SCORE


#### Vulnerability



#### Coping Capacity





# BUENOS AIRES RECOMMENDATIONS

1

## Gender Inequality

Focus efforts to support equal labor participation by diversifying economic opportunities for women in the Province.

Promote social benefit programs that support single parents with children.

Encourage women to participate in the disaster management planning and decision-making process through inclusion community emergency brigades and representation in local government.

2

## Clean Water Access Vulnerability

Nearly 25% of homes in Buenos Aires Province do not have access to piped water, and 52% are not connected to sewer services, resulting in the 5th highest Clean Water Vulnerability in Argentina. Invest in improved water and sanitation infrastructure to increase access to clean water and reduce health risks.

Findings show a high rate of exposure drought in Buenos Aires Province. Invest in infrastructure to promote water conservation and support farmers through training and education on drought resistant crop varieties and farming practices to reduce water stress and drought impacts.

Buenos Aires Province is also at high risk for flood. Educate and build preparedness among exposed communities on potential impacts of floods on fresh water and sanitation systems. Replace dated and unimproved water and sanitation infrastructure to reduce potential impacts and increase resilience.

## BUENOS AIRES RECOMMENDATIONS

### 3

#### Communications Capacity

Buenos Aires Province ranks 8th in overall Communications Capacity. Pursue public-private partnerships to increase availability and affordability of internet and television communications.

While investing to diversify access to communication technology, officials should broadcast critical information and disaster warnings primarily via alternate media (such as radio) to keep the population informed and ensure that appropriate actions are taken. Buenos Aires is highly exposed to extreme temperature, drought, landslide, wildfire and flood hazards

### 4

#### Health Care Capacity

Findings show that Buenos Aires Province has just 29 physicians per 10,000 persons, compared to 131 in CABA. In coordination with Ministerio de Salud and Medical I/NGOs, implement incentives to attract physicians to rural and underserved communities of Buenos Aires Province.

Reduce disparities in access to hospitals and medical services by ensuring equitable distribution of clinics and health services in rural and vulnerable communities.

**Better solutions.  
Fewer disasters.**

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**ARGENTINA**

# **CIUDAD DE BUENOS AIRES**

**NDPBA PROVINCE PROFILE**

# ARGENTINA

## CIUDAD DE BUENOS AIRES

### CAPITAL:

Area: 211 km<sup>2</sup>

Ciudad de Buenos Aires is located in the Central region of Argentina. Also known as C.A.B.A. - Ciudad Autónoma de Buenos Aires (Autonomous City of Buenos Aires), it is the largest city in Argentina and the Capital of the country. The city borders with Uruguay and the Province of Buenos Aires. The city is the financial, industrial and commercial hub for the country.



### RISK AND VULNERABILITY

#### COMPONENT SCORE



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

Score: 0.491 • Rank: 16/24



#### RESILIENCE (R) - Very High

Score: 0.69 • Rank: 1/24



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

Score: 0.854 • Rank: 2/24



#### VULNERABILITY (V) - Very Low

Score: 0.167 • Rank: 24/24



#### COPING CAPACITY (CC) - Very High

Score: 0.547 • Rank: 3/24



Population (2018)

**3,068,043**



Population in Poverty

**12.6%**



Illiterate population

**0.5%**



Access to improved water

**99.6%**



Average life expectancy

**77.2 years**

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

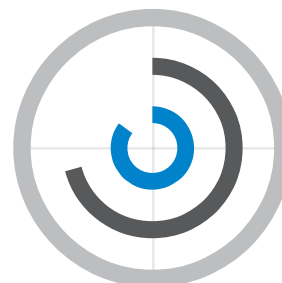




## MULTI-HAZARD EXPOSURE (MHE)

RANK: 2 / 24 PROVINCES

SCORE: 0.854

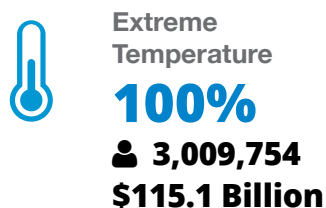
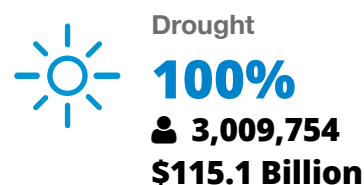
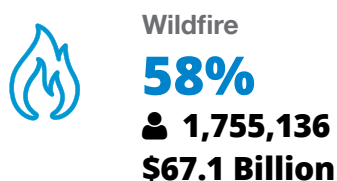
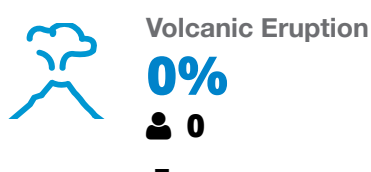
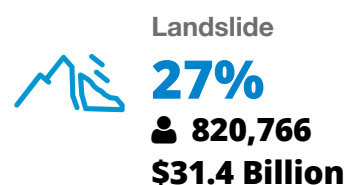
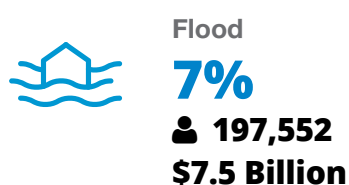
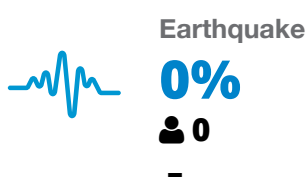


MHE  
0.854

Raw MHE  
0.708

Relative MHE  
1

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





## VULNERABILITY (V)

**RANK: 24 / 24 PROVINCES ASSESSED**  
**SCORE: 0.167**

Vulnerability in Ciudad de Buenos Aires is primarily driven by Information Access Vulnerability and Economic Constraints. The bar chart indicates the socioeconomic themes contributing to the province's overall Vulnerability score.



### Environmental Stress

**SCORE: 0.155 RANK: 23/24 PROVINCES ASSESSED**

**3.2%**

Land  
degradation

**0**

Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status

**SCORE: 0.226 RANK: 23/24 PROVINCES ASSESSED**

**77.2**

Life expectancy  
(years)

**7.5**

Infant mortality  
rate (per 1,000  
live births)

**1.5**

Maternal  
mortality ratio

**11.2%**

Disability

**21.6**

HIV  
incidence

**34**

Tuberculosis  
incidence



### Clean Water Vulnerability

**SCORE: 0 RANK: 24/24 PROVINCES ASSESSED**

**0.4%**

Households  
without piped  
water

**1.8%**

Households  
without sewage  
services



### Information Access Vulnerability

**SCORE: 0.321 RANK: 22/24 PROVINCES ASSESSED**

**0.5%**

Illiteracy Rate  
(Age 10+)

**87.4%**

Secondary  
education  
completion rate

**94.1%**

School  
enrollment

**1.83**

Education investment per  
capita (million pesos)



### Economic Constraints

**SCORE: 0.262 RANK: 22/24 PROVINCES ASSESSED**

**56.5**

Economic  
dependency  
ratio

**4.3%**

Unemployment  
rate

**12.6%**

Poverty rate



### Gender Inequality

**SCORE: 0.205 RANK: 23/24 PROVINCES ASSESSED**

**1.52**

Female to male  
unemployment

**50**

Female judiciary  
seats



### Population Pressures

**SCORE: 0 RANK: 24/24 PROVINCES ASSESSED**

**0.1%**

Average Annual  
population  
change



## COPING CAPACITY (CC)

**RANK: 3 / 24 PROVINCES ASSESSED**  
**SCORE: 0.547**

Ciudad de Buenos Aires exhibits weaker Coping Capacity in the areas of Governance and Economic Capacity. The bar chart indicates the socioeconomic themes contributing to the province's overall Coping Capacity score.



### Economic Capacity



**SCORE: 0.416** **RANK: 14/24 PROVINCES ASSESSED**

**103.3**

Exports per capita  
(USD)

**25.3%**

Work insurance  
coverage

**12.4**

Tax distribution



### Governance



**SCORE: 0.344** **RANK: 23/24 PROVINCES ASSESSED**

**25.9**

Crime  
prevalence

**81.0%**

Voter  
participation



### Environmental Capacity



**SCORE: 0.026** **RANK: 24/24 PROVINCES ASSESSED**

**1.7%**

Protected area

**0.0%**

Forest cover



### Infrastructure Capacity



**SCORE: 0.975** **RANK: 1/24 PROVINCES ASSESSED**



### Health Care Capacity

**SCORE: 0.995** **RANK: 1/24 PROVINCES ASSESSED**

**72.3**

Hospital beds per  
10,000 people

**131.2**

Physicians per  
10,000 people

**82.3%**

Health insurance  
coverage

**3.3**

Average distance to nearest  
hospital (km<sup>2</sup>)



### Transportation Capacity

**SCORE: 1** **RANK: 1/24 PROVINCES ASSESSED**

**1.18**

Road density (km per sq. km)

**3.2**

Average distance to port (km)

**100.0%**

Proportion of roads improved



### Communications Capacity

**SCORE: 0.92** **RANK: 2/24 PROVINCES ASSESSED**

**69.4%**

Households with Internet

**26.4%**

Television subscriptions per  
100 people



### Energy Capacity

**SCORE: 0.985** **RANK: 1/24 PROVINCES ASSESSED**

**99.5%**

Households with electricity

**92.2%**

Households with gas



### Disaster Management Capabilities



**SCORE: 0.683** **RANK: 1/24 PROVINCES ASSESSED**

**2.5**

Distance to fire  
station (km)

**0.1**

Shelters per 100k  
persons

**98.1%**

Radiobase  
access



## RESILIENCE (R)

RANK: 1 / 24 PROVINCES

SCORE: 0.69

Ciudad de Buenos Aires's score and ranking are due to Very Low Vulnerability combined with Very High Coping Capacity scores.

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



Information  
Access  
Vulnerability



Economic  
Constraints



Governance



Economic Capacity



## HAZARD-SPECIFIC RISK (HSR)



Earthquake

RANK: 13 / 24 PROVINCES ASSESSED

SCORE: 0.000



Wildfire

RANK: 13 / 24 PROVINCES ASSESSED

SCORE: 0.293



Volcano

RANK: 9 / 24 PROVINCES ASSESSED

SCORE: 0.000



Flood

RANK: 15 / 24 PROVINCES ASSESSED

SCORE: 0.146



Landslide

RANK: 14 / 24 PROVINCES ASSESSED

SCORE: 0.187



Drought

RANK: 12 / 24 PROVINCES ASSESSED

SCORE: 0.292



Extreme Temperature

RANK: 9 / 24 PROVINCES ASSESSED

SCORE: 0.292



## MULTI-HAZARD RISK (MHR)

**16 / 24**

RANK WITHIN PROVINCES  
Score: 0.491

Ciudad de Buenos Aires's score and ranking are due to Very High Multi-hazard exposure combined with Very Low Vulnerability and Very High Coping Capacity scores.

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



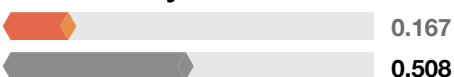
#### Multi-Hazard Exposure



DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity





# CIUDAD DE BUENOS AIRES RECOMMENDATIONS

## 1

### Information Access Vulnerability

Though overall access to information is very low in CABA, findings show that the city has the lowest per capita investment in education (Financiamiento Educativo Ley No. 26.075). Ensure equitable support for public education in CABA, including human and instructional resources as well as education infrastructure.

## 2

### Economic Constraints

CABA has the 6th highest economic dependency ratio (ratio of non-working age population to working age population). Consider long-term economic plans that both promote social benefits for elderly, low income, and single-parent households, and allocate the revenue required to balance the costs of these benefits.

Promote workforce opportunities for young women and immigrants to help stimulate economic growth and reduce economic dependency.

## CIUDAD DE BUENOS AIRES RECOMMENDATIONS

### 3

#### Governance

Findings show that CABA has the 3rd highest crime prevalence in Argentina. Focus on strengthening support for public security through increased law enforcement and surveillance, youth education and personal safety programs, and community support programs for ex-criminals.

### 4

#### Economic Capacity

CABA ranks 14th in Overall Economic Capacity, driven by the second lowest value of exports per capita (\$103 USD), as well as second lowest tax distribution per capita (\$12.4 thousand).

Continue to encourage programs that diversify the economy in CABA to generate public revenue, increase household incomes, and support small businesses.

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Fewer disasters.**

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**ARGENTINA**

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**CATAMARCA**

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**NDPBA PROVINCE PROFILE**

# ARGENTINA

## CATAMARCA

**CAPITAL: SAN FERNANDO DEL VALLE DE CATAMARCA**

Area: 101,876 km<sup>2</sup>

Catamarca Province is located in the Noroeste Argentino (NOA) region of Argentina. This Province is divided into 16 Provinces, the Capital being Catamarca. The Province borders Chile and the Provinces of Salta, Tucumán, Santiago del Estero, Córdoba and La Rioja. The main economic sources are livestock and mining.



## RISK AND VULNERABILITY

### COMPONENT SCORE



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

Score: 0.464 • Rank: 17/24



**RESILIENCE (R) - Moderate**

Score: 0.496 • Rank: 10/24



**MULTI-HAZARD EXPOSURE (MHE) - Low**

Score: 0.384 • Rank: 16/24



**VULNERABILITY (V) - Low**

Score: 0.489 • Rank: 15/24



**COPING CAPACITY (CC) - Moderate**

Score: 0.480 • Rank: 10/24



Population (2018)

**408,152**



Population in Poverty

**35.5%**



Illiterate population

**2.0%**



Access to improved water

**93.1%**



Average life expectancy

**76.0 years**

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

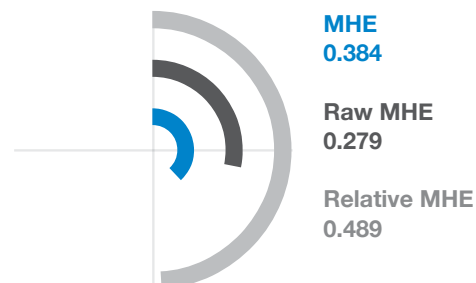




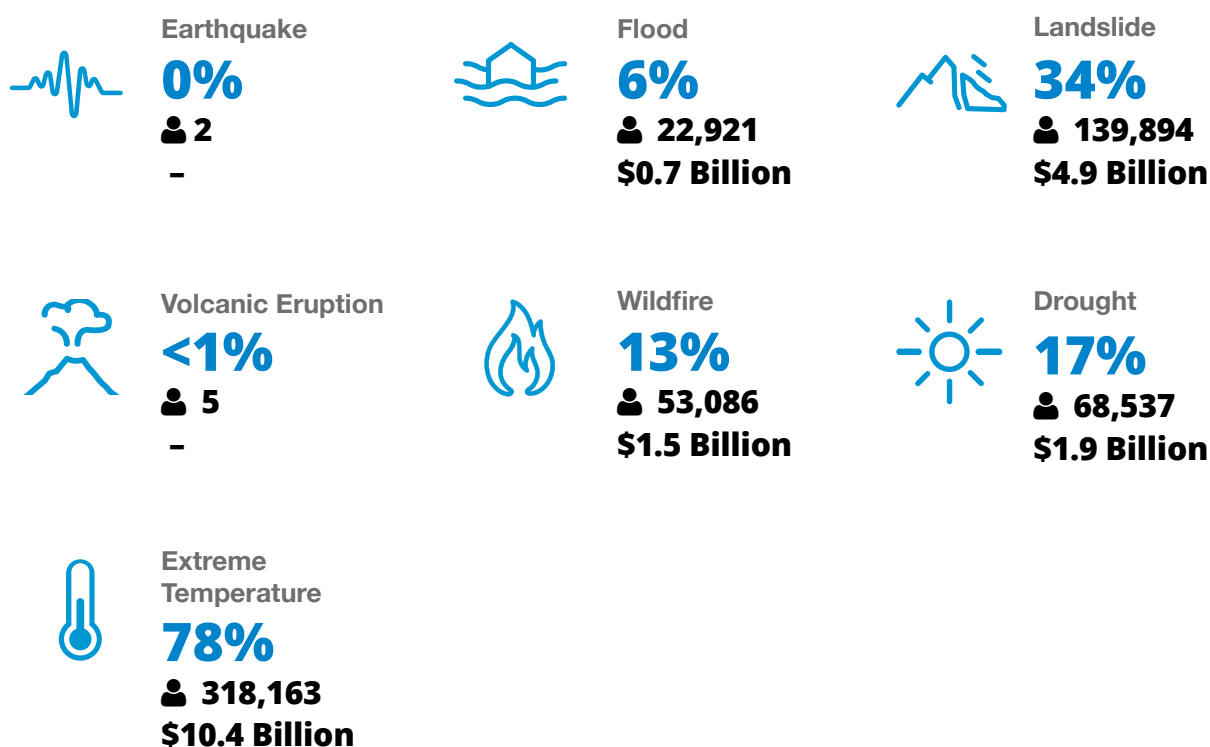
## MULTI-HAZARD EXPOSURE (MHE)

RANK: 16 / 24 PROVINCES

SCORE: 0.384



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





## VULNERABILITY (V)

**RANK: 15 / 24 PROVINCES ASSESSED**  
**SCORE: 0.489**

Vulnerability in Catamarca is primarily driven by Gender Inequality and Economic Constraints. The bar chart indicates the socioeconomic themes contributing to the province's overall Vulnerability score.



### Environmental Stress

**SCORE: 0.403 RANK: 20/24 PROVINCES ASSESSED**

**1.5%** **440.2**  
Land  
degradation Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status

**SCORE: 0.566 RANK: 5/24 PROVINCES ASSESSED**

**76** **11.7** **10.5** **16.1%** **12.7** **4.7**  
Life expectancy Infant mortality Maternal Disability HIV Tuberculosis  
(years) rate (per 1,000 mortality ratio incidence incidence  
live births)



### Clean Water Vulnerability

**SCORE: 0.455 RANK: 12/24 PROVINCES ASSESSED**

**6.9%** **55.6%**  
Households Households  
without piped without sewage  
water services



### Information Access Vulnerability

**SCORE: 0.239 RANK: 24/24 PROVINCES ASSESSED**

**2.0%** **83.9%** **91.1%** **4.51**  
Illiteracy Rate Secondary School Education investment per  
(Age 10+) education enrollment capita (million pesos)  
completion rate



### Economic Constraints

**SCORE: 0.588 RANK: 9/24 PROVINCES ASSESSED**

**52.9** **7.1%** **35.5%**  
Economic Unemployment Poverty rate  
dependency rate



### Gender Inequality

**SCORE: 0.732 RANK: 8/24 PROVINCES ASSESSED**

**2.01** **39.3**  
Female to male Female judiciary  
unemployment seats



### Population Pressures

**SCORE: 0.436 RANK: 20/24 PROVINCES ASSESSED**

**1.0%**  
Average Annual  
population  
change



## COPING CAPACITY (CC)

**RANK: 10 / 24 PROVINCES ASSESSED**  
**SCORE: 0.480**

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



### Economic Capacity

**SCORE: 0.535 RANK: 6/24 PROVINCES ASSESSED**

**1984.1**

Exports per capita  
(USD)

**0.4%**

Work insurance  
coverage

**47.2**

Tax distribution



### Governance

**SCORE: 0.419 RANK: 22/24 PROVINCES ASSESSED**

**15.4**

Crime  
prevalence

**77.6%**

Voter  
participation



### Environmental Capacity

**SCORE: 0.416 RANK: 10/24 PROVINCES ASSESSED**

**18.1%**

Protected area

**23.7%**

Forest cover



### Infrastructure Capacity

**SCORE: 0.359 RANK: 17/24 PROVINCES ASSESSED**



### Health Care Capacity

**SCORE: 0.441 RANK: 15/24 PROVINCES ASSESSED**

**48.8**

Hospital beds per  
10,000 people

**26.5**

Physicians per  
10,000 people

**60.9%**

Health insurance  
coverage

**50**

Average distance to nearest  
hospital (km<sup>2</sup>)



### Transportation Capacity

**SCORE: 0.399 RANK: 16/24 PROVINCES ASSESSED**

**0.07**

Road density (km per sq. km)

**28.4**

Average distance to port (km)

**99.2%**

Proportion of roads improved



### Communications Capacity

**SCORE: 0.148 RANK: 20/24 PROVINCES ASSESSED**

**29.5%**

Households with Internet

**8.0%**

Television subscriptions per  
100 people



### Energy Capacity

**SCORE: 0.446 RANK: 16/24 PROVINCES ASSESSED**

**97.0%**

Households with electricity

**18.2%**

Households with gas



### Disaster Management Capabilities

**SCORE: 0.638 RANK: 3/24 PROVINCES ASSESSED**

**60.8**

Distance to fire  
station (km)

**2.5**

Shelters per 100k  
persons

**62.0%**

Radiobase  
access



## RESILIENCE (R)

**RANK: 10 / 24 PROVINCES**

**SCORE: 0.496**

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

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



**Gender Inequality**



**Economic Constraints**



**Communications Capacity**



**Transportation Capacity**



## HAZARD-SPECIFIC RISK (HSR)



**Earthquake**

**RANK: 12 / 24 PROVINCES ASSESSED**

**SCORE: 0.010**



**Wildfire**

**RANK: 18 / 24 PROVINCES ASSESSED**

**SCORE: 0.149**



**Volcano**

**RANK: 8 / 24 PROVINCES ASSESSED**

**SCORE: 0.019**



**Flood**

**RANK: 16 / 24 PROVINCES ASSESSED**

**SCORE: 0.127**



**Landslide**

**RANK: 10 / 24 PROVINCES ASSESSED**

**SCORE: 0.253**



**Drought**

**RANK: 15 / 24 PROVINCES ASSESSED**

**SCORE: 0.196**



**Extreme Temperature**

**RANK: 7 / 24 PROVINCES ASSESSED**

**SCORE: 0.383**



## MULTI-HAZARD RISK (MHR)

**17 / 24**

RANK WITHIN PROVINCES  
Score: 0.464

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

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



#### Multi-Hazard Exposure



DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity





## CATAMARCA RECOMMENDATIONS

1

### Gender Inequality

---

Focus efforts to support equal labor participation by diversifying economic opportunities for women in the Province.

Promote social benefit programs that support single parents with children.

Encourage women to participate in the disaster management planning and decision-making process through inclusion community emergency brigades and representation in local government.

2

### Economic Constraints

---

Catamarca Province is among the smallest economies in Argentina, with the 5th highest unemployment and the 9th highest poverty rate. Economic activity in Catamarca is driven primarily by agriculture and mining.

Support new business opportunities to diversify livelihoods and generate prospects for equitable distribution of property and economic assets in the Province.

## CATAMARCA RECOMMENDATIONS

### 3

#### Communications Capacity

Catamarca ranks 20th in overall Communication Capacity. Just 30% of households have access to the internet, and there are just 8 television subscriptions per 100 people. Pursue public-private partnerships to increase availability and affordability of internet and television communications.

While investing to diversify access to communication technology, officials should broadcast critical information and disaster warnings primarily via alternate media (such as radio) to keep the population informed and ensure that appropriate actions are taken. Catamarca is exposed to Extreme Temperature, Landslide, Drought, and Wildfire, and Flood hazards.

### 4

#### Transportation Capacity

Catamarca Province has the lowest overall road density in Argentina, and the local airport is currently insufficient to handle major disaster management logistics needs. The nearest suitable airport is 250 km away in Tucumán.

Increase accessibility, mobility and external resource connectivity to the population by constructing an airfield capable of supporting cargo aircrafts.

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# ARGENTINA

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# CHACO

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## NDPBA PROVINCE PROFILE

# ARGENTINA

## CHACO

### CAPITAL: RESISTENCIA

Area: 99,764 km<sup>2</sup>

Chaco Province is located in the Nordeste Argentino (NEA) region of Argentina. This Province is divided into 25 Provinces, the Capital being Chaco. The Province borders Paraguay and the Provinces of Formosa, Corrientes, Santa Fe, Santiago del Estero and Salta. The main economic sources are Agriculture, livestock and industrial production.



## RISK AND VULNERABILITY

### COMPONENT SCORE



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

Score: 0.605 • Rank: 4/24



#### RESILIENCE (R) - Very Low

Score: 0.389 • Rank: 22/24



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

Score: 0.592 • Rank: 8/24



#### VULNERABILITY (V) - Very High

Score: 0.622 • Rank: 2/24



#### COPING CAPACITY (CC) - Low

Score: 0.400 • Rank: 19/24



Population (2018)

**1,180,477**



Population in Poverty

**41.4%**



Illiterate population

**5.5%**



Access to improved water

**76.5%**



Average life expectancy

**72.9 years**

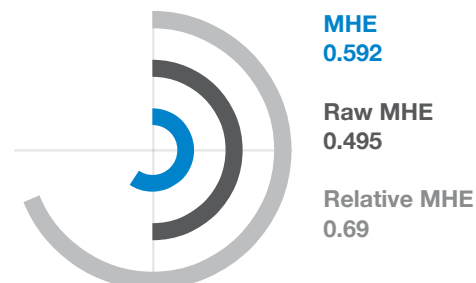
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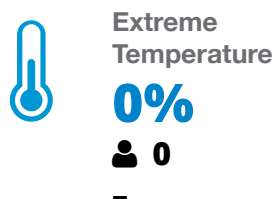
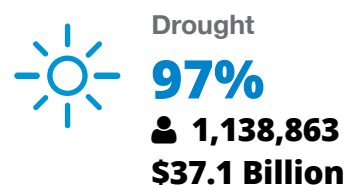
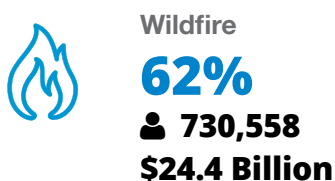
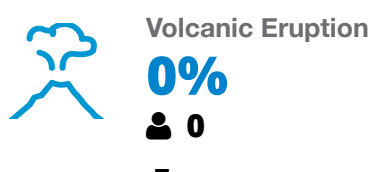
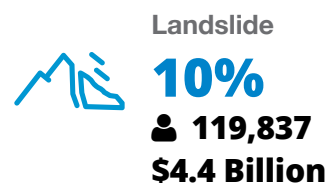
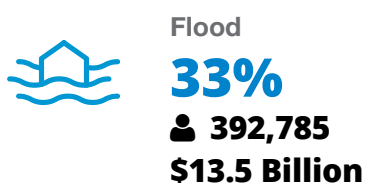
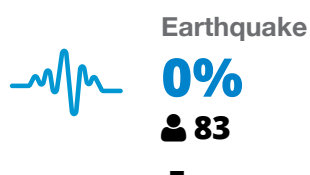
## MULTI-HAZARD EXPOSURE (MHE)

RANK: 8 / 24 PROVINCES

SCORE: 0.592



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





## VULNERABILITY (V)

**RANK: 2 / 24 PROVINCES ASSESSED**  
**SCORE: 0.622**

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



### Environmental Stress



**SCORE: 0.603 RANK: 10/24 PROVINCES ASSESSED**

**6.4%**

Land  
degradation

**49.4**

Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status



**SCORE: 0.599 RANK: 4/24 PROVINCES ASSESSED**

**72.9**

Life expectancy  
(years)

**11.9**

Infant mortality  
rate (per 1,000  
live births)

**4.1**

Maternal  
mortality ratio

**15.4%**

Disability

**1**

HIV  
incidence

**27.1**

Tuberculosis  
incidence



### Clean Water Vulnerability



**SCORE: 0.868 RANK: 3/24 PROVINCES ASSESSED**

**23.5%**

Households  
without piped  
water

**73.6%**

Households  
without sewage  
services



### Information Access Vulnerability



**SCORE: 0.673 RANK: 1/24 PROVINCES ASSESSED**

**5.5%**

Illiteracy Rate  
(Age 10+)

**80.9%**

Secondary  
education  
completion rate

**83.5%**

School  
enrollment

**3.35**

Education investment per  
capita (million pesos)



### Economic Constraints



**SCORE: 0.582 RANK: 10/24 PROVINCES ASSESSED**

**55.6**

Economic  
dependency  
ratio

**5.3%**

Unemployment  
rate

**41.4%**

Poverty rate



### Gender Inequality



**SCORE: 0.543 RANK: 14/24 PROVINCES ASSESSED**

**1.81**

Female to male  
unemployment

**58.3**

Female judiciary  
seats



### Population Pressures



**SCORE: 0.488 RANK: 15/24 PROVINCES ASSESSED**

**1.1%**

Average Annual  
population  
change





## COPING CAPACITY (CC)

**RANK: 19 / 24 PROVINCES ASSESSED**  
**SCORE: 0.400**

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



### Economic Capacity



**SCORE: 0.396 RANK: 17/24 PROVINCES ASSESSED**

**318.4**

Exports per capita  
(USD)

**1.4%**

Work insurance  
coverage

**30.7**

Tax distribution



### Governance



**SCORE: 0.478 RANK: 16/24 PROVINCES ASSESSED**

**13.3**

Crime  
prevalence

**77.8%**

Voter  
participation



### Environmental Capacity



**SCORE: 0.518 RANK: 6/24 PROVINCES ASSESSED**

**9.4%**

Protected area

**49.4%**

Forest cover



### Infrastructure Capacity



**SCORE: 0.346 RANK: 18/24 PROVINCES ASSESSED**



### Health Care Capacity

**SCORE: 0.351 RANK: 20/24 PROVINCES ASSESSED**

**33**

Hospital beds per  
10,000 people

**24.3**

Physicians per  
10,000 people

**42.1%**

Health insurance  
coverage

**9.1**

Average distance to nearest  
hospital (km<sup>2</sup>)



### Transportation Capacity

**SCORE: 0.694 RANK: 3/24 PROVINCES ASSESSED**

**0.33**

Road density (km per sq. km)

**18.9**

Average distance to port (km)

**100.0%**

Proportion of roads improved



### Communications Capacity

**SCORE: 0.24 RANK: 15/24 PROVINCES ASSESSED**

**34.5%**

Households with Internet

**9.1%**

Television subscriptions per  
100 people



### Energy Capacity

**SCORE: 0.099 RANK: 23/24 PROVINCES ASSESSED**

**92.7%**

Households with electricity

**0.0%**

Households with gas



### Disaster Management Capabilities



**SCORE: 0.325 RANK: 18/24 PROVINCES ASSESSED**

**33**

Distance to fire  
station (km)

**0.2**

Shelters per 100k  
persons

**41.2%**

Radiobase  
access



## RESILIENCE (R)

**RANK: 22 / 24 PROVINCES**

**SCORE: 0.389**

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

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



**Clean Water  
Access  
Vulnerability**



**Information Access  
Vulnerability**



**Energy Capacity**



**Communications  
Capacity**



## HAZARD-SPECIFIC RISK (HSR)



**Earthquake**

**RANK: 8 / 24 PROVINCES ASSESSED**

**SCORE: 0.063**



**Wildfire**

**RANK: 1 / 24 PROVINCES ASSESSED**

**SCORE: 0.557**



**Volcano**

**RANK: 9 / 24 PROVINCES ASSESSED**

**SCORE: 0.000**



**Flood**

**RANK: 1 / 24 PROVINCES ASSESSED**

**SCORE: 0.532**



**Landslide**

**RANK: 15 / 24 PROVINCES ASSESSED**

**SCORE: 0.170**



**Drought**

**RANK: 1 / 24 PROVINCES ASSESSED**

**SCORE: 0.545**



**Extreme Temperature**

**RANK: 14 / 24 PROVINCES ASSESSED**

**SCORE: 0**



## MULTI-HAZARD RISK (MHR)

4 / 24

RANK WITHIN PROVINCES  
Score: 0.605

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

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



#### Multi-Hazard Exposure



DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



# CHACO RECOMMENDATIONS

## 1

### Clean Water Access Vulnerability

Chaco Province ranks 3rd in Overall Clean Water Access Vulnerability. Nearly 24% of homes in Chaco Province do not have access to piped water, and 74% are not connected to sewer services. Invest in improved water and sanitation infrastructure to increase access to clean water and reduce health risks.

Findings show a high rate of exposure drought in Chaco Province. Protect the agricultural sector by investing in infrastructure to promote water conservation and support farmers through training and education on drought resistant crop varieties and farming practices to reduce water stress and drought impacts.

Chaco Province is also at high risk for flood. Educate and build preparedness among exposed communities on potential impacts of floods on fresh water and sanitation systems. Replace dated and unimproved water and sanitation infrastructure to reduce potential impacts and increase resilience.

## 2

### Information Access Vulnerability

Findings show that Chaco Province has the highest Access to Information Vulnerability in Argentina, exhibiting the country's highest illiteracy rate (5.5%), and 3rd lowest school enrollment rate (84%). Outcomes of Access to Information Vulnerability are also reflected in the Province's poverty rate (41.4% - 3rd highest in the nation).

Reduce economic barriers to school attendance, promoting stable household living conditions.

Focus interventions on building literacy standards at the primary level, and on reducing school dropout rates. Ensure that the Province has the human resources needed to support education through the secondary level.

## CHACO RECOMMENDATIONS

### 3

#### Energy Capacity

Chaco Province ranks 23rd in overall Energy Capacity, with 93% of households reporting connection to the electricity network, and 0 households connected to the natural gas network. Focus development programs on increasing energy capacity by establishing sustainable power generation in underserved communities and extending the existing transmission and distribution network.

### 4

#### Communications Capacity

Chaco ranks 15th in overall Communication Capacity. Just 35% of households have access to the internet, and there are just 9 television subscriptions per 100 people. Pursue public-private partnerships to increase availability and affordability of internet and television communications.

While investing to diversify access to communication technology, officials should broadcast critical information and disaster warnings primarily via alternate media (such as radio) to keep the population informed and ensure that appropriate actions are taken. Chaco district is highly exposed to drought, wildfire and flood hazards.

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# ARGENTINA

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# CHUBUT

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## NDPBA PROVINCE PROFILE



# ARGENTINA

## CHUBUT

### CAPITAL: RAWSON

Area: 224,195 km<sup>2</sup>

Chubut Province is located in the Patagonia region of Argentina. This Province is divided into 15 Provinces, the Capital being Chubut. The Province borders Chile and the Provinces of Río Negro and Santa Cruz. The main economic sources are mining, petroleum refining, livestock and fishing.



## RISK AND VULNERABILITY

### COMPONENT SCORE



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

Score: 0.432 • Rank: 19/24



#### RESILIENCE (R) - High

Score: 0.507 • Rank: 8/24



#### MULTI-HAZARD EXPOSURE (MHE) - Low

Score: 0.311 • Rank: 19/24



#### VULNERABILITY (V) - Low

Score: 0.451 • Rank: 19/24



#### COPING CAPACITY (CC) - Moderate

Score: 0.465 • Rank: 12/24



Population (2018)

**598,380**



Population in Poverty

**35.5%**



Illiterate population

**2.0%**



Access to improved water

**96.4%**



Average life expectancy

**76.0 years**

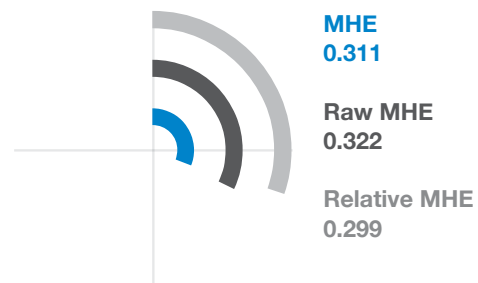
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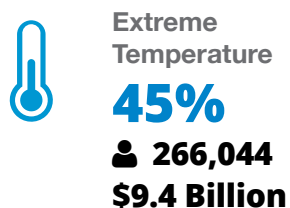
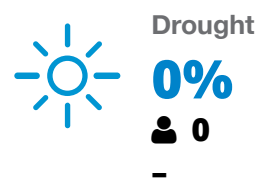
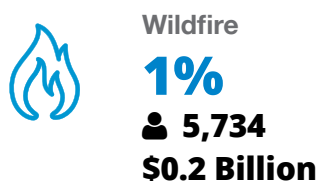
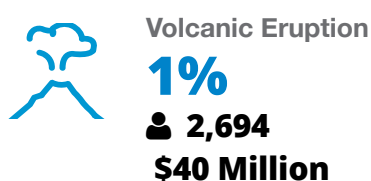
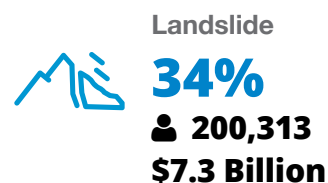
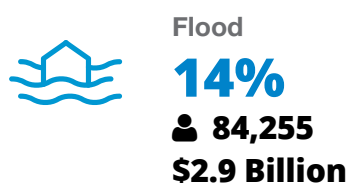
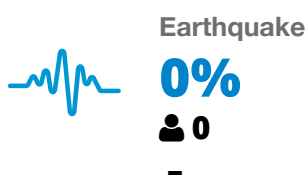
## MULTI-HAZARD EXPOSURE (MHE)

RANK: 19 / 24 PROVINCES

SCORE: 0.311



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





## VULNERABILITY (V)

**RANK: 19 / 24 PROVINCES ASSESSED**  
**SCORE: 0.451**

Vulnerability in Chubut is primarily driven by Population Pressures and Gender Inequality. The bar chart indicates the socioeconomic themes contributing to the province's overall Vulnerability score.



### Environmental Stress



**SCORE: 0.433 RANK: 17/24 PROVINCES ASSESSED**

**4.6%**

Land  
degradation

**2.3**

Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status



**SCORE: 0.319 RANK: 16/24 PROVINCES ASSESSED**

**76**

Life expectancy  
(years)

**9**

Infant mortality  
rate (per 1,000  
live births)

**2.1**

Maternal  
mortality ratio

**12.9%**

Disability

**16.1**

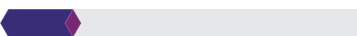
HIV  
incidence

**15.1**

Tuberculosis  
incidence



### Clean Water Vulnerability



**SCORE: 0.187 RANK: 21/24 PROVINCES ASSESSED**

**3.6%**

Households  
without piped  
water

**22.3%**

Households  
without sewage  
services



### Information Access Vulnerability



**SCORE: 0.487 RANK: 17/24 PROVINCES ASSESSED**

**2.0%**

Illiteracy Rate  
(Age 10+)

**77.2%**

Secondary  
education  
completion rate

**92.0%**

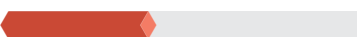
School  
enrollment

**2.72**

Education investment per  
capita (million pesos)



### Economic Constraints



**SCORE: 0.406 RANK: 20/24 PROVINCES ASSESSED**

**51.8**

Economic  
dependency  
ratio

**5.6%**

Unemployment  
rate

**35.5%**

Poverty rate



### Gender Inequality



**SCORE: 0.586 RANK: 11/24 PROVINCES ASSESSED**

**1.85**

Female to male  
unemployment

**41.4**

Female judiciary  
seats



### Population Pressures



**SCORE: 0.74 RANK: 3/24 PROVINCES ASSESSED**

**2.0%**

Average Annual  
population  
change



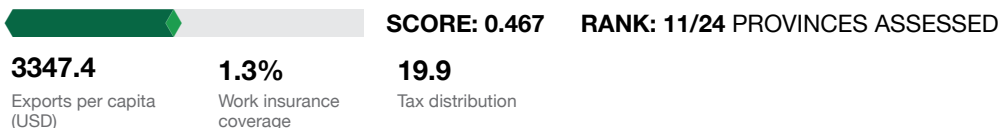
## COPING CAPACITY (CC)

**RANK: 12 / 24 PROVINCES ASSESSED**  
**SCORE: 0.465**

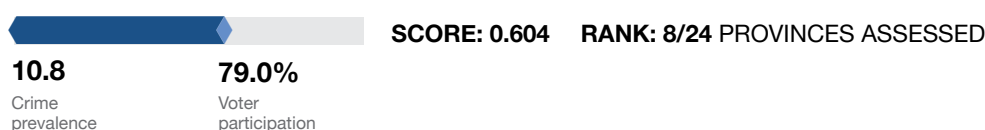
Chubut exhibits weaker Coping Capacity in the areas of Transportation Capacity and Disaster Management Capabilities. The bar chart indicates the socioeconomic themes contributing to the province's overall Coping Capacity score.



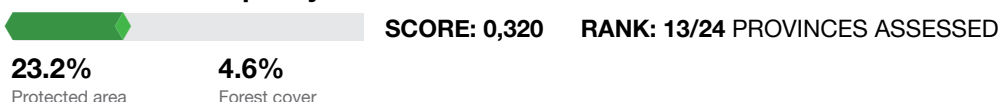
### Economic Capacity



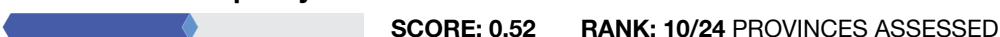
### Governance



### Environmental Capacity



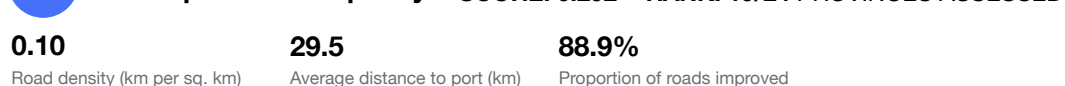
### Infrastructure Capacity



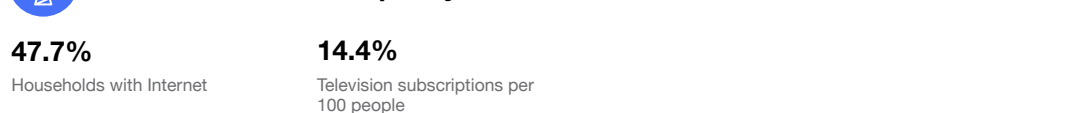
### Health Care Capacity



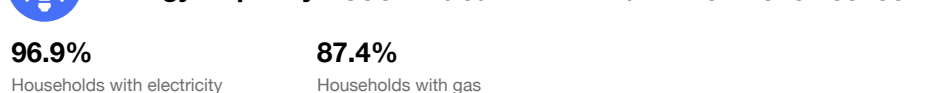
### Transportation Capacity



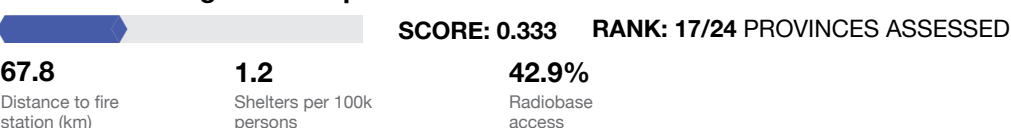
### Communications Capacity



### Energy Capacity



### Disaster Management Capabilities





## RESILIENCE (R)

**RANK: 8 / 24 PROVINCES**  
**SCORE: 0.507**

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

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



**Population Pressures**



**Gender Inequality**



**Transportation Capacity**



**Disaster Management Capabilities**



## HAZARD-SPECIFIC RISK (HSR)



**Earthquake**

**RANK: 13 / 24 PROVINCES ASSESSED**  
**SCORE: 0.000**



**Wildfire**

**RANK: 23 / 24 PROVINCES ASSESSED**  
**SCORE: 0.018**



**Volcano**

**RANK: 4 / 24 PROVINCES ASSESSED**  
**SCORE: 0.098**



**Flood**

**RANK: 9 / 24 PROVINCES ASSESSED**  
**SCORE: 0.286**



**Landslide**

**RANK: 9 / 24 PROVINCES ASSESSED**  
**SCORE: 0.260**



**Drought**

**RANK: 22 / 24 PROVINCES ASSESSED**  
**SCORE: 0.000**



**Extreme Temperature**

**RANK: 10 / 24 PROVINCES ASSESSED**  
**SCORE: 0.29**



## MULTI-HAZARD RISK (MHR)

**19 / 24**

RANK WITHIN PROVINCES  
Score: 0.432

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

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



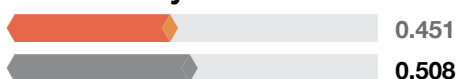
#### Multi-Hazard Exposure



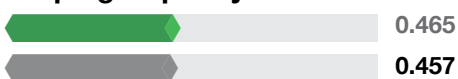
DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



# CHUBUT RECOMMENDATIONS

1

## Population Pressures

---

Chubut Province experienced the 3rd largest average annual population increase between 2010 and 2019 (over 2%). As population growth steadily increases, closely monitor development to prevent environmental stress and ensure that resource and infrastructure needs are met.

Incorporate multi-hazard mapping and risk assessment into land-use plans and zoning regulations to reduce and prevent development in hazard-prone areas of the Province.

2

## Gender Inequality

---

Encourage women to participate in the disaster management planning and decision-making process through inclusion community emergency brigades and representation in local government.

## CHUBUT RECOMMENDATIONS

### 3

#### Transportation Capacity

Low road network density combined with large average distances to the nearest airport may reduce the connectivity of people, goods, and services to Chubut Province during a disaster.

Invest in transportation infrastructure to facilitate the distribution of resources and services before, during, and after a disaster.

### 4

#### Disaster Management Capabilities

Focus on building community and volunteer fire and emergency response corps. Identify government or external resources to conduct emergency services training and conduct Province-level exercise on a regular basis.

Establish designated emergency shelters. Coordinate with the Argentine Red Cross to provide shelter management training for community volunteer and provincial staff.



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ARGENTINA

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# CÓRDOBA

---

## NDPBA PROVINCE PROFILE

# ARGENTINA CÓRDOBA

## CAPITAL: CÓRDOBA

Area: 164,663 km<sup>2</sup>

Córdoba Province is located in the Central region of Argentina. This Province is divided into 26 Provinces, the Capital being Córdoba. The Province borders the Provinces of Buenos Aires, Santa Fe, Santiago del Estero, Catamarca, La Rioja, San Luis and La Pampa. The main economic sources are tourism, agriculture, livestock, industry and services such as financial, educational, medical, etc.



## RISK AND VULNERABILITY COMPONENT SCORE



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

Score: 0.584 • Rank: 7/24



### RESILIENCE (R) - High

Score: 0.509 • Rank: 7/24



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

Score: 0.771 • Rank: 3/24



### VULNERABILITY (V) - Moderate

Score: 0.545 • Rank: 11/24



### COPING CAPACITY (CC) - Very High

Score: 0.564 • Rank: 1/24



Population (2018)

**3,683,937**



Population in Poverty

**36.5%**



Illiterate population

**1.5%**



Access to improved water

**91.9%**



Average life expectancy

**75.8 years**

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



## MULTI-HAZARD EXPOSURE (MHE)

RANK: 3 / 24 PROVINCES

SCORE: 0.771

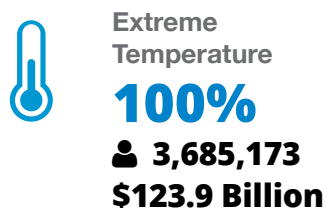
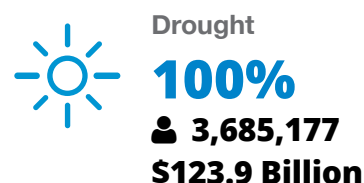
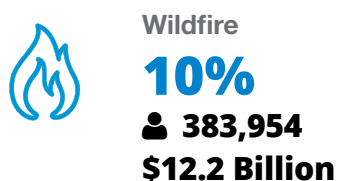
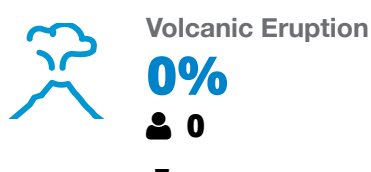
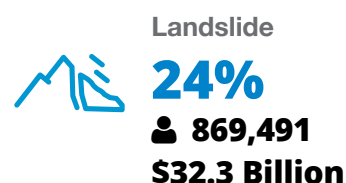
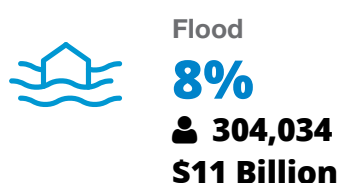
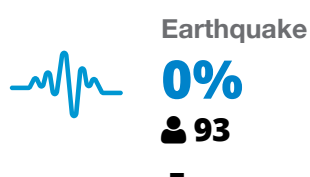


MHE  
0.771

Raw MHE  
0.717

Relative MHE  
0.826

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





## VULNERABILITY (V)

**RANK: 11 / 24 PROVINCES ASSESSED**  
**SCORE: 0.545**

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



### Environmental Stress



**SCORE: 0.657 RANK: 7/24 PROVINCES ASSESSED**

**6.2%**

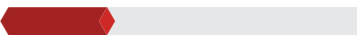
Land  
degradation

**274.3**

Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status



**SCORE: 0.286 RANK: 19/24 PROVINCES ASSESSED**

**75.8**

Life expectancy  
(years)

**8.9**

Infant mortality  
rate (per 1,000  
live births)

**2.8**

Maternal  
mortality ratio

**12.4%**

Disability

**11.6**

HIV  
incidence

**8.9**

Tuberculosis  
incidence



### Clean Water Vulnerability



**SCORE: 0.515 RANK: 9/24 PROVINCES ASSESSED**

**8.1%**

Households  
without piped  
water

**61.7%**

Households  
without sewage  
services



### Information Access Vulnerability



**SCORE: 0.536 RANK: 11/24 PROVINCES ASSESSED**

**1.5%**

Illiteracy Rate  
(Age 10+)

**80.1%**

Secondary  
education  
completion rate

**87.6%**

School  
enrollment

**2.15**

Education investment per  
capita (million pesos)



### Economic Constraints



**SCORE: 0.557 RANK: 11/24 PROVINCES ASSESSED**

**54.8**

Economic  
dependency  
ratio

**5.9%**

Unemployment  
rate

**36.5%**

Poverty rate



### Gender Inequality



**SCORE: 0.778 RANK: 5/24 PROVINCES ASSESSED**

**2.19**

Female to male  
unemployment

**45.3**

Female judiciary  
seats



### Population Pressures



**SCORE: 0.486 RANK: 16/24 PROVINCES ASSESSED**

**1.1%**

Average Annual  
population  
change



## COPING CAPACITY (CC)

**RANK: 1 / 24 PROVINCES ASSESSED**  
**SCORE: 0.564**

Córdoba exhibits weaker Coping Capacity in the areas of Governance and Economic Capacity. The bar chart indicates the socioeconomic themes contributing to the province's overall Coping Capacity score.



### Economic Capacity



**SCORE: 0.588 RANK: 2/24 PROVINCES ASSESSED**

**2331**

Exports per capita  
(USD)

**9.5%**

Work insurance  
coverage

**18.7**

Tax distribution



### Governance



**SCORE: 0.518 RANK: 10/24 PROVINCES ASSESSED**

**18.1**

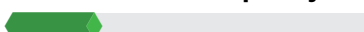
Crime  
prevalence

**80.8%**

Voter  
participation



### Environmental Capacity



**SCORE: 0.237 RANK: 18/24 PROVINCES ASSESSED**

**8.7%**

Protected area

**17.5%**

Forest cover



### Infrastructure Capacity



**SCORE: 0.693 RANK: 2/24 PROVINCES ASSESSED**



### Health Care Capacity

**SCORE: 0.682 RANK: 2/24 PROVINCES ASSESSED**

**38.6**

Hospital beds per  
10,000 people

**46.8**

Physicians per  
10,000 people

**67.1%**

Health insurance  
coverage

**17.9**

Average distance to nearest  
hospital (km<sup>2</sup>)



### Transportation Capacity

**SCORE: 0.661 RANK: 7/24 PROVINCES ASSESSED**

**0.29**

Road density (km per sq. km)

**20.4**

Average distance to port (km)

**100.0%**

Proportion of roads improved



### Communications Capacity

**SCORE: 0.726 RANK: 3/24 PROVINCES ASSESSED**

**39.8%**

Households with Internet

**28.6%**

Television subscriptions per  
100 people



### Energy Capacity

**SCORE: 0.704 RANK: 10/24 PROVINCES ASSESSED**

**98.4%**

Households with electricity

**51.2%**

Households with gas



### Disaster Management Capabilities



**SCORE: 0.6 RANK: 5/24 PROVINCES ASSESSED**

**29.5**

Distance to fire  
station (km)

**0.2**

Shelters per 100k  
persons

**66.5%**

Radiobase  
access



## RESILIENCE (R)

RANK: 7 / 24 PROVINCES

SCORE: 0.509

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

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



Gender  
Inequality



Environmental  
Stress



Governance



Economic Capacity



## HAZARD-SPECIFIC RISK (HSR)



Earthquake

RANK: 9 / 24 PROVINCES ASSESSED

SCORE: 0.052



Wildfire

RANK: 16 / 24 PROVINCES ASSESSED

SCORE: 0.213



Volcano

RANK: 9 / 24 PROVINCES ASSESSED

SCORE: 0.000



Flood

RANK: 10 / 24 PROVINCES ASSESSED

SCORE: 0.272



Landslide

RANK: 4 / 24 PROVINCES ASSESSED

SCORE: 0.288



Drought

RANK: 9 / 24 PROVINCES ASSESSED

SCORE: 0.464



Extreme Temperature

RANK: 2 / 24 PROVINCES ASSESSED

SCORE: 0.464





## MULTI-HAZARD RISK (MHR)

**7 / 24**

RANK WITHIN PROVINCES  
Score: 0.584

Córdoba's score and ranking are due to Very High Multi-hazard exposure combined with Moderate Vulnerability and Very High Coping Capacity scores.

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



#### Multi-Hazard Exposure



DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity





## CÓRDOBA RECOMMENDATIONS

1

### Gender Inequality

---

Focus efforts to support equal labor participation by diversifying economic opportunities for women in the Province.

Promote social benefit programs that support single parents with children.

Encourage women to participate in the disaster management planning and decision-making process through inclusion community emergency brigades and representation in local government.

2

### Environmental Stress

---

Focus on protecting environmental resources from degradation, and deforestation. These environmental stresses increase the likelihood of hazard events and have wider implications for negative impacts on health and livelihoods, decreasing resilience.

Focus mitigation efforts to prevent, respond to, and reduce the impact of wildfires.

## CÓRDOBA RECOMMENDATIONS

### 3

#### Governance

Though Córdoba Province has the highest overall Coping Capacity, findings show that Córdoba's crime prevalence is 9th highest in Argentina. Focus on strengthening support for public security through increased law enforcement and surveillance, youth education and personal safety programs, and community support programs for ex-criminals.

### 4

#### Economic Capacity

Findings show that overall Economic Capacity is very high in Cordoba. However, tax distributions to the Province are 4th lowest in Argentina. Continue to assess equitable distributions of revenue across all Provinces and promote Province-level contingency funds to provide economic liquidity during disasters.

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**ARGENTINA**

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**CORRIENTES**

---

**NDPBA PROVINCE PROFILE**

# ARGENTINA

## CORRIENTES

### CAPITAL: CORRIENTES

Area: 88,972 km<sup>2</sup>

Corrientes Province is located in the Nordeste Argentino (NEA) region of Argentina. This Province is divided into 25 Provinces, the Capital being Corrientes. The Province borders Paraguay, Brazil, Uruguay and the Provinces of Misiones, Entre Ríos, Santa Fe and Chaco. The main economic sources are agriculture and livestock.



## RISK AND VULNERABILITY

### COMPONENT SCORE



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

Score: 0.528 • Rank: 13/24



#### RESILIENCE (R) - Low

Score: 0.432 • Rank: 18/24



#### MULTI-HAZARD EXPOSURE (MHE) - Low

Score: 0.446 • Rank: 15/24



#### VULNERABILITY (V) - High

Score: 0.573 • Rank: 5/24



#### COPING CAPACITY (CC) - Low

Score: 0.437 • Rank: 17/24



Population (2018)

**1,101,084**



Population in Poverty

**49.3%**



Illiterate population

**4.3%**



Access to improved water

**87.1%**



Average life expectancy

**74.4 years**

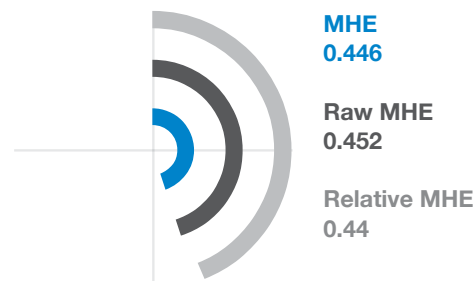
\*For more information on data and components please visit: <https://bit.ly/2LqVoUO>



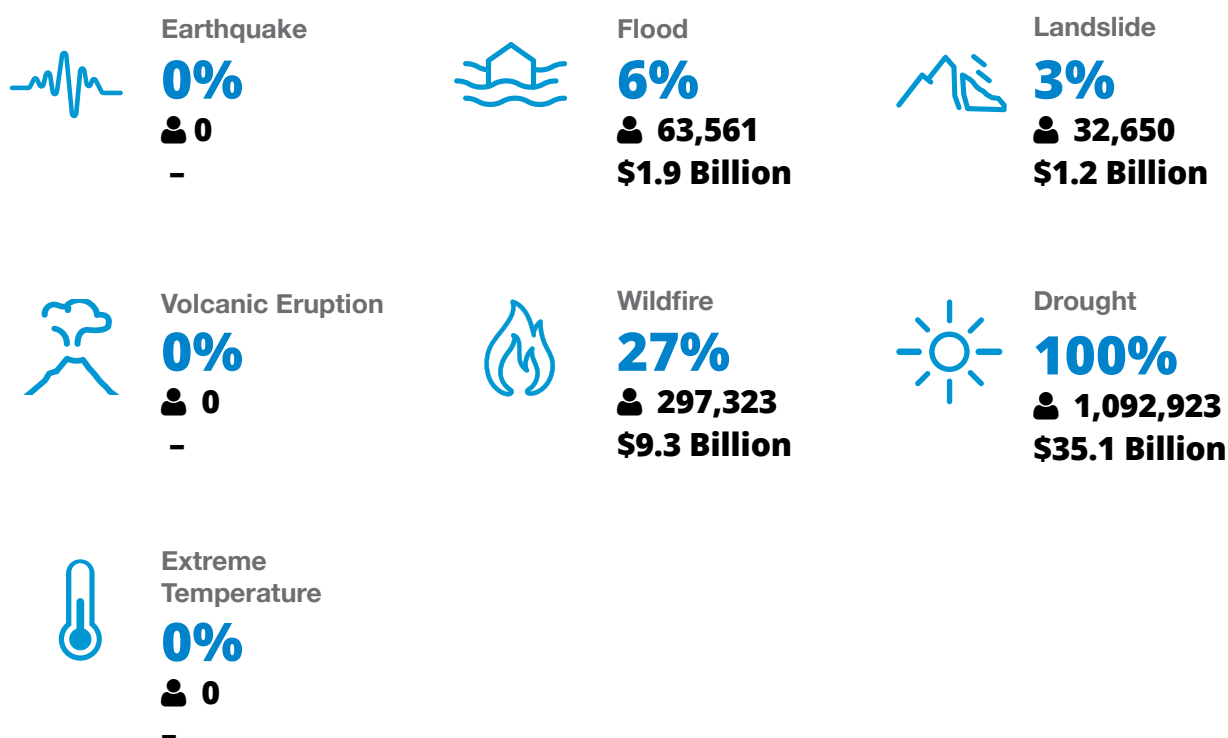
## MULTI-HAZARD EXPOSURE (MHE)

RANK: 15 / 24 PROVINCES

SCORE: 0.446



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





## VULNERABILITY (V)

**RANK: 5 / 24 PROVINCES ASSESSED**  
**SCORE: 0.573**

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



### Environmental Stress



**SCORE: 0.625 RANK: 9/24 PROVINCES ASSESSED**

**8.1%**

Land  
degradation

**27.1**

Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status



**SCORE: 0.534 RANK: 6/24 PROVINCES ASSESSED**

**74.4**

Life expectancy  
(years)

**13.5**

Infant mortality  
rate (per 1,000  
live births)

**4**

Maternal  
mortality ratio

**13.6%**

Disability

**9.5**

HIV  
incidence

**18.7**

Tuberculosis  
incidence



### Clean Water Vulnerability



**SCORE: 0.507 RANK: 10/24 PROVINCES ASSESSED**

**12.9%**

Households  
without piped  
water

**46.6%**

Households  
without sewage  
services



### Information Access Vulnerability



**SCORE: 0.616 RANK: 3/24 PROVINCES ASSESSED**

**4.3%**

Illiteracy Rate  
(Age 10+)

**79.2%**

Secondary  
education  
completion rate

**86.3%**

School  
enrollment

**3.14**

Education investment per  
capita (million pesos)



### Economic Constraints



**SCORE: 0.708 RANK: 5/24 PROVINCES ASSESSED**

**56.2**

Economic  
dependency  
ratio

**5.7%**

Unemployment  
rate

**49.3%**

Poverty rate



### Gender Inequality



**SCORE: 0.581 RANK: 12/24 PROVINCES ASSESSED**

**1.91**

Female to male  
unemployment

**44.7**

Female judiciary  
seats



### Population Pressures



**SCORE: 0.441 RANK: 19/24 PROVINCES ASSESSED**

**1.0%**

Average Annual  
population  
change





## COPING CAPACITY (CC)

**RANK: 17 / 24 PROVINCES ASSESSED**  
**SCORE: 0.437**

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



### Economic Capacity



**SCORE: 0.318** **RANK: 22/24 PROVINCES ASSESSED**

**196.2**

Exports per capita  
(USD)

**1.3%**

Work insurance  
coverage

**25**

Tax distribution



### Governance



**SCORE: 0.68** **RANK: 6/24 PROVINCES ASSESSED**

**11.1**

Crime  
prevalence

**80.6%**

Voter  
participation



### Environmental Capacity



**SCORE: 0.265** **RANK: 14/24 PROVINCES ASSESSED**

**16.4%**

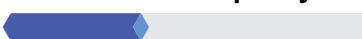
Protected area

**8.7%**

Forest cover



### Infrastructure Capacity



**SCORE: 0.378** **RANK: 16/24 PROVINCES ASSESSED**



### Health Care Capacity

**SCORE: 0.415** **RANK: 17/24 PROVINCES ASSESSED**

**33.6**

Hospital beds per  
10,000 people

**32.8**

Physicians per  
10,000 people

**51.6%**

Health insurance  
coverage

**22.9**

Average distance to nearest  
hospital (km<sup>2</sup>)



### Transportation Capacity

**SCORE: 0.65** **RANK: 8/24 PROVINCES ASSESSED**

**0.27**

Road density (km per sq. km)

**20.6**

Average distance to port (km)

**100.0%**

Proportion of roads improved



### Communications Capacity

**SCORE: 0.242** **RANK: 14/24 PROVINCES ASSESSED**

**33.6%**

Households with Internet

**9.8%**

Television subscriptions per  
100 people



### Energy Capacity

**SCORE: 0.205** **RANK: 20/24 PROVINCES ASSESSED**

**94.5%**

Households with electricity

**0.0%**

Households with gas



### Disaster Management Capabilities



**SCORE: 0.446** **RANK: 11/24 PROVINCES ASSESSED**

**26.5**

Distance to fire  
station (km)

**0.1**

Shelters per 100k  
persons

**50.4%**

Radiobase  
access



## RESILIENCE (R)

**RANK: 18 / 24 PROVINCES**

**SCORE: 0.432**

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

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



**Economic  
Constraints**



**Environmental  
Stress**



**Energy Capacity**



**Communications  
Capacity**



## HAZARD-SPECIFIC RISK (HSR)



**Earthquake**

**RANK: 13 / 24 PROVINCES ASSESSED**

**SCORE: 0.000**



**Wildfire**

**RANK: 11 / 24 PROVINCES ASSESSED**

**SCORE: 0.312**



**Volcano**

**RANK: 9 / 24 PROVINCES ASSESSED**

**SCORE: 0.000**



**Flood**

**RANK: 14 / 24 PROVINCES ASSESSED**

**SCORE: 0.193**



**Landslide**

**RANK: 20 / 24 PROVINCES ASSESSED**

**SCORE: 0.050**



**Drought**

**RANK: 5 / 24 PROVINCES ASSESSED**

**SCORE: 0.514**



**Extreme Temperature**

**RANK: 14 / 24 PROVINCES ASSESSED**

**SCORE: 0**



## MULTI-HAZARD RISK (MHR)

**13 / 24**

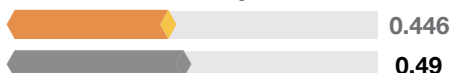
RANK WITHIN PROVINCES  
Score: 0.528

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

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



#### Multi-Hazard Exposure



DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



# CORRIENTES RECOMMENDATIONS

## 1

### Economic Constraints

Findings show that Corrientes Province has highest poverty rate in Argentina (49%) combined with a high economic dependency ratio (ratio of non-working age population to working age population). Support new business opportunities to diversify livelihoods and generate prospects for equitable distribution of property and economic assets in the Province.

Consider long-term economic plans that both promote social benefits for elderly, low income, and single-parent households, and allocate the revenue required to balance the costs of these benefits.

Economic constraints in Corrientes are closely linked to Information Access Vulnerability and vice versa. Removing economic barriers to education, and ensuring equitable access to schools, educational resources, and information technology will reduce vulnerability in the district.

## 2

### Environmental Stress

Focus on protecting environmental resources from degradation, and deforestation. These environmental stresses increase the likelihood of hazard events and have wider implications for negative impacts on health and livelihoods, decreasing resilience.

## CORRIENTES RECOMMENDATIONS

3

### Energy Capacity

Corrientes Province ranks 20th in overall Energy Capacity, with 94% of households reporting connection to the electricity network, and 0 households connected to the natural gas network. Focus development programs on increasing energy capacity by establishing sustainable power generation in underserved communities and extending the existing transmission and distribution network.

4

### Communications Capacity

Corrientes ranks 14th in overall Communication Capacity. Just 34% of households have access to the internet, and there are just 10 television subscriptions per 100 people. Pursue public-private partnerships to increase availability and affordability of internet and television communications.

While investing to diversify access to communication technology, officials should broadcast critical information and disaster warnings primarily via alternate media (such as radio) to keep the population informed and ensure that appropriate actions are taken. Corrientes Province is exposed to drought, wildfire, flood and landslide hazards.

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Fewer disasters.**

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# ARGENTINA

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# ENTRE RÍOS

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## NDPBA PROVINCE PROFILE

# ARGENTINA

## ENTRE RÍOS

**CAPITAL: PARANÁ**

Area: 77,860 km<sup>2</sup>

Entre Ríos Province is located in the Central region of Argentina. This Province is divided into 17 Provinces, the Capital being Entre Ríos. The Province borders Uruguay and the Provinces of Buenos Aires, Santa Fe and Corrientes. The main economic sources are agriculture, livestock and poultry.



## RISK AND VULNERABILITY

### COMPONENT SCORE



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

Score: 0.571 • Rank: 8/24



**RESILIENCE (R) - Moderate**

Score: 0.455 • Rank: 13/24



**MULTI-HAZARD EXPOSURE (MHE) - High**

Score: 0.622 • Rank: 7/24



**VULNERABILITY (V) - High**

Score: 0.559 • Rank: 8/24



**COPING CAPACITY (CC) - Moderate**

Score: 0.468 • Rank: 11/24



Population (2018)

**1,360,443**



Population in Poverty

**41.9%**



Illiterate population

**2.1%**



Access to improved water

**90.4%**



Average life expectancy

**75.0 years**

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





## MULTI-HAZARD EXPOSURE (MHE)

RANK: 7 / 24 PROVINCES

SCORE: 0.622

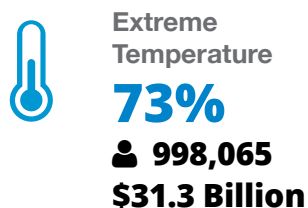
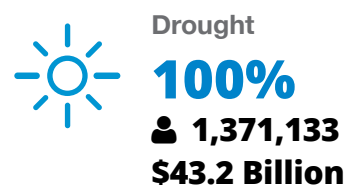
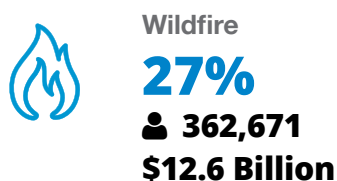
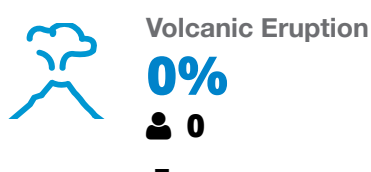
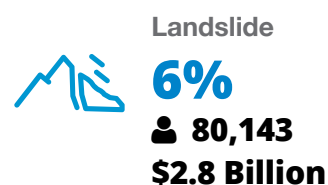
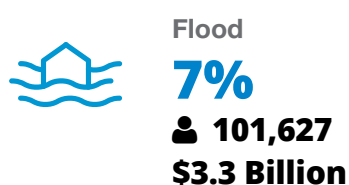
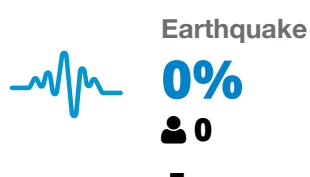


**MHE**  
0.622

Raw MHE  
0.523

Relative MHE  
0.722

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





## VULNERABILITY (V)

**RANK: 8 / 24 PROVINCES ASSESSED**  
**SCORE: 0.559**

Vulnerability in Entre Ríos is primarily driven by Gender Inequality and Environmental Stress. The bar chart indicates the socioeconomic themes contributing to the province's overall Vulnerability score.



### Environmental Stress



**SCORE: 0.742 RANK: 3/24 PROVINCES ASSESSED**

**21.3%**

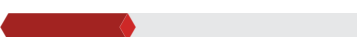
Land  
degradation

**4.7**

Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status



**SCORE: 0.346 RANK: 15/24 PROVINCES ASSESSED**

**75**

Life expectancy  
(years)

**10.4**

Infant mortality  
rate (per 1,000  
live births)

**2.7**

Maternal  
mortality ratio

**11.7%**

Disability

**8.5**

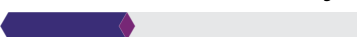
HIV  
incidence

**15.5**

Tuberculosis  
incidence



### Clean Water Vulnerability



**SCORE: 0.344 RANK: 17/24 PROVINCES ASSESSED**

**9.6%**

Households  
without piped  
water

**30.2%**

Households  
without sewage  
services



### Information Access Vulnerability



**SCORE: 0.628 RANK: 2/24 PROVINCES ASSESSED**

**2.1%**

Illiteracy Rate  
(Age 10+)

**73.9%**

Secondary  
education  
completion rate

**86.8%**

School  
enrollment

**2.58**

Education investment per  
capita (million pesos)



### Economic Constraints



**SCORE: 0.525 RANK: 13/24 PROVINCES ASSESSED**

**55.6**

Economic  
dependency  
ratio

**4.7%**

Unemployment  
rate

**41.9%**

Poverty rate



### Gender Inequality



**SCORE: 0.875 RANK: 2/24 PROVINCES ASSESSED**

**2.13**

Female to male  
unemployment

**34.8**

Female judiciary  
seats



### Population Pressures



**SCORE: 0.449 RANK: 18/24 PROVINCES ASSESSED**

**1.0%**

Average Annual  
population  
change



## COPING CAPACITY (CC)

**RANK: 11 / 24 PROVINCES ASSESSED**  
**SCORE: 0.468**

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



### Economic Capacity



**SCORE: 0.48** **RANK: 9/24 PROVINCES ASSESSED**

**842.3**

Exports per capita  
(USD)

**2.9%**

Work insurance  
coverage

**25.6**

Tax distribution



### Governance



**SCORE: 0.468** **RANK: 18/24 PROVINCES ASSESSED**

**11.7**

Crime  
prevalence

**76.9%**

Voter  
participation



### Environmental Capacity



**SCORE: 0.257** **RANK: 16/24 PROVINCES ASSESSED**

**6.3%**

Protected area

**23.6%**

Forest cover



### Infrastructure Capacity



**SCORE: 0.546** **RANK: 9/24 PROVINCES ASSESSED**



### Health Care Capacity



**SCORE: 0.582** **RANK: 5/24 PROVINCES ASSESSED**

**38.4**

Hospital beds per  
10,000 people

**31.7**

Physicians per  
10,000 people

**64.3%**

Health insurance  
coverage

**11.1**

Average distance to nearest  
hospital (km<sup>2</sup>)



### Transportation Capacity



**SCORE: 0.629** **RANK: 10/24 PROVINCES ASSESSED**

**0.31**

Road density (km per sq. km)

**24.6**

Average distance to port (km)

**100.0%**

Proportion of roads improved



### Communications Capacity



**SCORE: 0.44** **RANK: 9/24 PROVINCES ASSESSED**

**39.9%**

Households with Internet

**15.4%**

Television subscriptions per  
100 people



### Energy Capacity



**SCORE: 0.532** **RANK: 15/24 PROVINCES ASSESSED**

**97.8%**

Households with electricity

**25.8%**

Households with gas



### Disaster Management Capabilities



**SCORE: 0.472** **RANK: 8/24 PROVINCES ASSESSED**

**37.3**

Distance to fire  
station (km)

**1.8**

Shelters per 100k  
persons

**42.0%**

Radiobase  
access



## RESILIENCE (R)

RANK: 13 / 24 PROVINCES

SCORE: 0.455

Entre Ríos's score and ranking are due to High Vulnerability combined with Moderate Coping Capacity scores.

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



Gender  
Inequality



Environmental  
Stress



Communications  
Capacity



Governance



## HAZARD-SPECIFIC RISK (HSR)



Earthquake

RANK: 13 / 24 PROVINCES ASSESSED

SCORE: 0.000



Wildfire

RANK: 10 / 24 PROVINCES ASSESSED

SCORE: 0.314



Volcano

RANK: 9 / 24 PROVINCES ASSESSED

SCORE: 0.000



Flood

RANK: 11 / 24 PROVINCES ASSESSED

SCORE: 0.234



Landslide

RANK: 18 / 24 PROVINCES ASSESSED

SCORE: 0.109



Drought

RANK: 7 / 24 PROVINCES ASSESSED

SCORE: 0.497



Extreme Temperature

RANK: 6 / 24 PROVINCES ASSESSED

SCORE: 0.417



## MULTI-HAZARD RISK (MHR)

**8 / 24**

RANK WITHIN PROVINCES  
Score: 0.571

Entre Ríos's score and ranking are due to High Multi-hazard exposure combined with High Vulnerability and Moderate Coping Capacity scores.

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



#### Multi-Hazard Exposure



DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



## ENTRE RÍOS RECOMMENDATIONS

### 1

#### Gender Inequality

---

Focus efforts to support equal labor participation by diversifying economic opportunities for women in the Province.

Promote social benefit programs that support single parents with children.

Encourage women to participate in the disaster management planning and decision-making process through inclusion community emergency brigades and representation in local government.

### 2

#### Environmental Stress

---

Focus on protecting environmental resources from degradation, and deforestation. These environmental stresses increase the likelihood of hazard events and have wider implications for negative impacts on health and livelihoods, decreasing resilience.

## ENTRE RÍOS RECOMMENDATIONS

### 3

#### Communications Capacity

Entre Ríos ranks 9th in overall Communication Capacity. Forty percent of households have access to the internet, and just 15 television subscriptions per 100 people. Pursue public-private partnerships to increase availability and affordability of internet and television communications.

While investing to diversify access to communication technology, officials should broadcast critical information and disaster warnings primarily via alternate media (such as radio) to keep the population informed and ensure that appropriate actions are taken. Entre Ríos Province is exposed to drought, extreme temperature, wildfire, flood and landslide hazards.

### 4

#### Governance

Entre Ríos Province had the 4th lowest voter participation rate during the 2019 election (77%). Focus on building civic participation at the community to increase public voice and accountability, building trust in government.

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# ARGENTINA

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# FORMOSA

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## NDPBA PROVINCE PROFILE

# ARGENTINA

## FORMOSA

### CAPITAL: FORMOSA

Area: 75,592 km<sup>2</sup>

Formosa Province is located in the Nordeste Argentino (NEA) region of Argentina. This Province is divided into 9 Provinces, the Capital being Formosa. The Province borders Paraguay and the Provinces of Chaco and Salta. The main economic sources are agriculture and livestock.



## RISK AND VULNERABILITY

### COMPONENT SCORE



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

Score: 0.492 • Rank: 15/24



#### RESILIENCE (R) - Very Low

Score: 0.385 • Rank: 23/24



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

Score: 0.247 • Rank: 23/24



#### VULNERABILITY (V) - High

Score: 0.563 • Rank: 7/24



#### COPING CAPACITY (CC) - Very Low

Score: 0.333 • Rank: 23/24



Population (2018)

**595,129**



Population in Poverty

**32.5%**



Illiterate population

**4.1%**



Access to improved water

**76.8%**



Average life expectancy

**73.9 years**

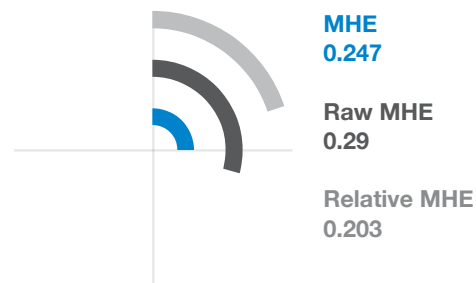
\*For more information on data and components please visit: <https://bit.ly/2LqVoUO>



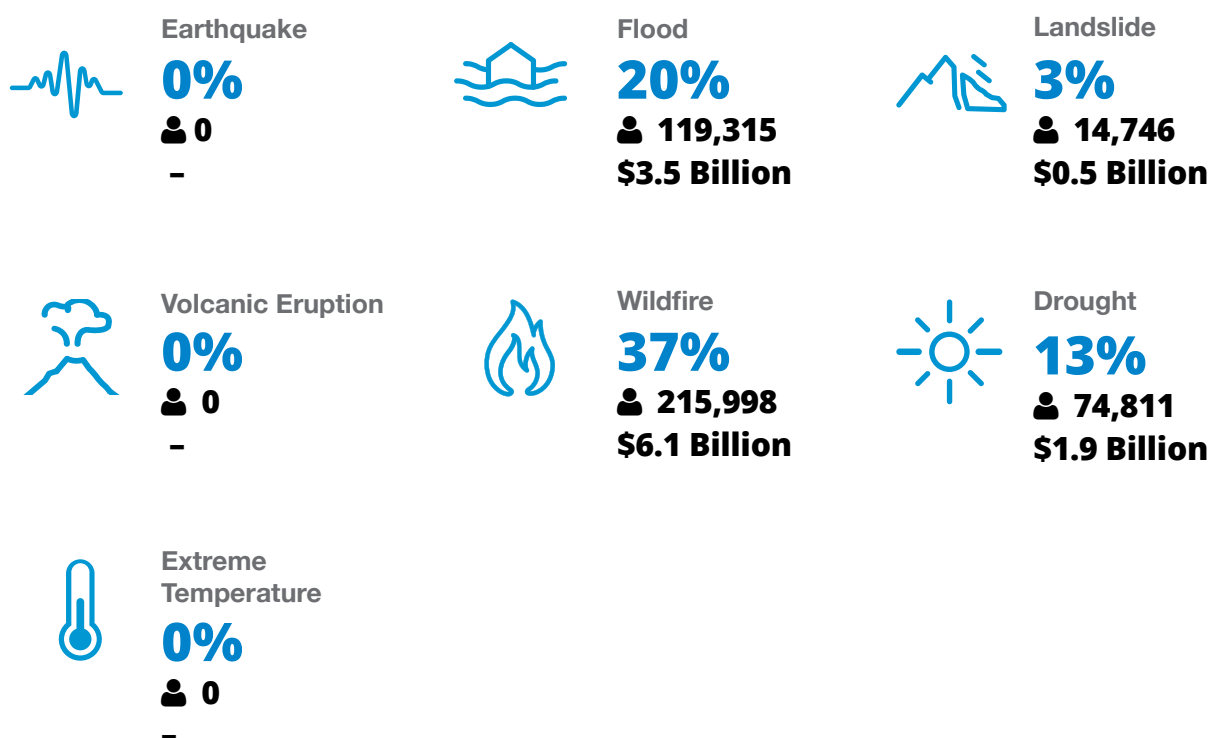
## MULTI-HAZARD EXPOSURE (MHE)

RANK: 23 / 24 PROVINCES

SCORE: 0.247



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





## VULNERABILITY (V)

**RANK: 7 / 24 PROVINCES ASSESSED**  
**SCORE: 0.563**

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



### Environmental Stress



**SCORE: 0.567 RANK: 11/24 PROVINCES ASSESSED**

**6.4%**

Land  
degradation

**18.6**

Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status



**SCORE: 0.803 RANK: 1/24 PROVINCES ASSESSED**

**73.9**

Life expectancy  
(years)

**15**

Infant mortality  
rate (per 1,000  
live births)

**12.3**

Maternal  
mortality ratio

**14.4%**

Disability

**10.6**

HIV  
incidence

**39.7**

Tuberculosis  
incidence



### Clean Water Vulnerability



**SCORE: 0.831 RANK: 4/24 PROVINCES ASSESSED**

**23.2%**

Households  
without piped  
water

**68.5%**

Households  
without sewage  
services



### Information Access Vulnerability



**SCORE: 0.505 RANK: 15/24 PROVINCES ASSESSED**

**4.1%**

Illiteracy Rate  
(Age 10+)

**79.4%**

Secondary  
education  
completion rate

**88.1%**

School  
enrollment

**3.92**

Education investment per  
capita (million pesos)



### Economic Constraints



**SCORE: 0.502 RANK: 15/24 PROVINCES ASSESSED**

**57.7**

Economic  
dependency  
ratio

**4.4%**

Unemployment  
rate

**32.5%**

Poverty rate



### Gender Inequality



**SCORE: 0.304 RANK: 22/24 PROVINCES ASSESSED**

**1.81**

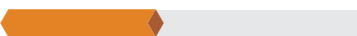
Female to male  
unemployment

**51.5**

Female judiciary  
seats



### Population Pressures



**SCORE: 0.427 RANK: 21/24 PROVINCES ASSESSED**

**0.9%**

Average Annual  
population  
change





## COPING CAPACITY (CC)

**RANK: 23 / 24 PROVINCES ASSESSED**  
**SCORE: 0.333**

Formosa exhibits weaker Coping Capacity in the areas of Energy Capacity and Disaster Management Capabilities. The bar chart indicates the socioeconomic themes contributing to the province's overall Coping Capacity score.



### Economic Capacity

**SCORE: 0.254 RANK: 24/24 PROVINCES ASSESSED**

**37.6** Exports per capita (USD)  
**0.4%** Work insurance coverage  
**43.9** Tax distribution



### Governance

**SCORE: 0.506 RANK: 12/24 PROVINCES ASSESSED**

**12.1** Crime prevalence  
**77.8%** Voter participation



### Environmental Capacity

**SCORE: 0.601 RANK: 5/24 PROVINCES ASSESSED**

**8.3%** Protected area  
**60.9%** Forest cover



### Infrastructure Capacity

**SCORE: 0.336 RANK: 19/24 PROVINCES ASSESSED**



### Health Care Capacity

**SCORE: 0.35 RANK: 21/24 PROVINCES ASSESSED**  
**35.6** Hospital beds per 10,000 people  
**20.7** Physicians per 10,000 people  
**43.1%** Health insurance coverage  
**9.9** Average distance to nearest hospital (km2)



### Transportation Capacity

**SCORE: 0.668 RANK: 6/24 PROVINCES ASSESSED**  
**0.24** Road density (km per sq. km)  
**13.3** Average distance to port (km)  
**96.8%** Proportion of roads improved



### Communications Capacity

**SCORE: 0.326 RANK: 12/24 PROVINCES ASSESSED**  
**39.8%** Households with Internet  
**10.2%** Television subscriptions per 100 people



### Energy Capacity

**SCORE: 0 RANK: 24/24 PROVINCES ASSESSED**  
**91.0%** Households with electricity  
**0.0%** Households with gas



### Disaster Management Capabilities

**SCORE: 0.118 RANK: 24/24 PROVINCES ASSESSED**

**95.4** Distance to fire station (km)  
**0.2** Shelters per 100k persons  
**42.5%** Radiobase access



## RESILIENCE (R)

**RANK: 23 / 24 PROVINCES**

**SCORE: 0.385**

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

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



**Clean Water  
Access  
Vulnerability**



**Vulnerable Health  
Status**



**Energy Capacity**



**Disaster  
Management  
Capabilities**



## HAZARD-SPECIFIC RISK (HSR)



**Earthquake**

**RANK: 13 / 24 PROVINCES ASSESSED**

**SCORE: 0.000**



**Wildfire**

**RANK: 7 / 24 PROVINCES ASSESSED**

**SCORE: 0.362**



**Volcano**

**RANK: 9 / 24 PROVINCES ASSESSED**

**SCORE: 0.000**



**Flood**

**RANK: 2 / 24 PROVINCES ASSESSED**

**SCORE: 0.448**



**Landslide**

**RANK: 24 / 24 PROVINCES ASSESSED**

**SCORE: 0.001**



**Drought**

**RANK: 13 / 24 PROVINCES ASSESSED**

**SCORE: 0.227**



**Extreme Temperature**

**RANK: 14 / 24 PROVINCES ASSESSED**

**SCORE: 0**



## MULTI-HAZARD RISK (MHR)

**15 / 24**

RANK WITHIN PROVINCES  
Score: 0.492

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

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



#### Multi-Hazard Exposure



DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



# FORMOSA RECOMMENDATIONS

1

## Clean Water Access Vulnerability

Twenty-three percent of homes in Formosa Province do not have access to piped water, and 69% are not connected to sewer services, resulting in the 5th highest Clean Water Vulnerability in Argentina. Invest in improved water and sanitation infrastructure to increase access to clean water and reduce health risks.

Findings indicate that Formosa Province is exposed to recurrent drought. Invest in infrastructure to promote water conservation and support farmers through training and education on drought resistant crop varieties and farming practices to reduce water stress and drought impacts.

Formosa Province is also exposed to recurrent flooding. Educate and build preparedness among exposed communities on potential impacts of floods on fresh water and sanitation systems. Replace dated and unimproved water and sanitation infrastructure to reduce potential impacts and increase resilience.

2

## Vulnerable Health Status

Findings show that Formosa Province has the highest overall Vulnerable Health Status in Argentina. The Province exhibits both the highest infant mortality rate (15 per 1,000 live births) and the highest maternal mortality ratio (12 per 100,000 live births), coupled with a high incidence of infectious disease.

Continue active health surveillance to prevent the spread of disease and increase availability of skilled health care.

Focus on attracting additional resources to support maternal and infant health care in rural and vulnerable regions of the Province.



## FORMOSA RECOMMENDATIONS

3

### Energy Capacity

Formosa Province ranks lowest in overall Energy Capacity, with 91% of households reporting connection to the electricity network, and 0 households connected to the natural gas network. Focus development programs on increasing energy capacity by establishing sustainable power generation in underserved communities and extending the existing transmission and distribution network.

4

### Disaster Management Capabilities

Focus on building community and volunteer fire and emergency response corps. Identify government or external resources to conduct emergency services training and conduct Province-level exercise on a regular basis.

Establish designated emergency shelters. Coordinate with the Argentine Red Cross to provide shelter management training for community volunteer and provincial staff.

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# ARGENTINA

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# JUJUY

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## NDPBA PROVINCE PROFILE

# ARGENTINA

## JUJUY

### CAPITAL: JUJUY

Area: 53,196 km<sup>2</sup>

Jujuy Province is located in the Noroeste Argentino (NOA) region of Argentina. This Province is divided into 16 Provinces, the Capital being Jujuy. The Province borders Bolivia, Chile and the Province of Salta. The main economic sources are agriculture and mining.



## RISK AND VULNERABILITY

### COMPONENT SCORE



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

Score: 0.537 • Rank: 12/24



#### **RESILIENCE (R) - Low**

Score: 0.433 • Rank: 17/24



#### **MULTI-HAZARD EXPOSURE (MHE) - Moderate**

Score: 0.478 • Rank: 13/24



#### **VULNERABILITY (V) - Low**

Score: 0.485 • Rank: 16/24



#### **COPING CAPACITY (CC) - Very Low**

Score: 0.350 • Rank: 22/24



Population (2018)

**753,891**



Population in Poverty

**31.7%**



Illiterate population

**3.1%**



Access to improved water

**94.5%**



Average life expectancy

**74.8 years**

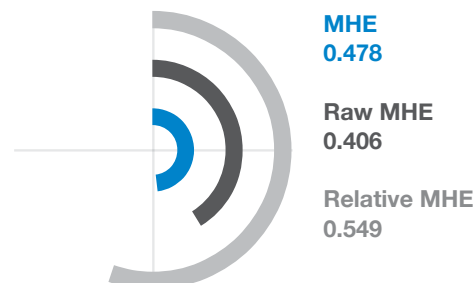
\*For more information on data and components please visit: <https://bit.ly/2LqVoUO>



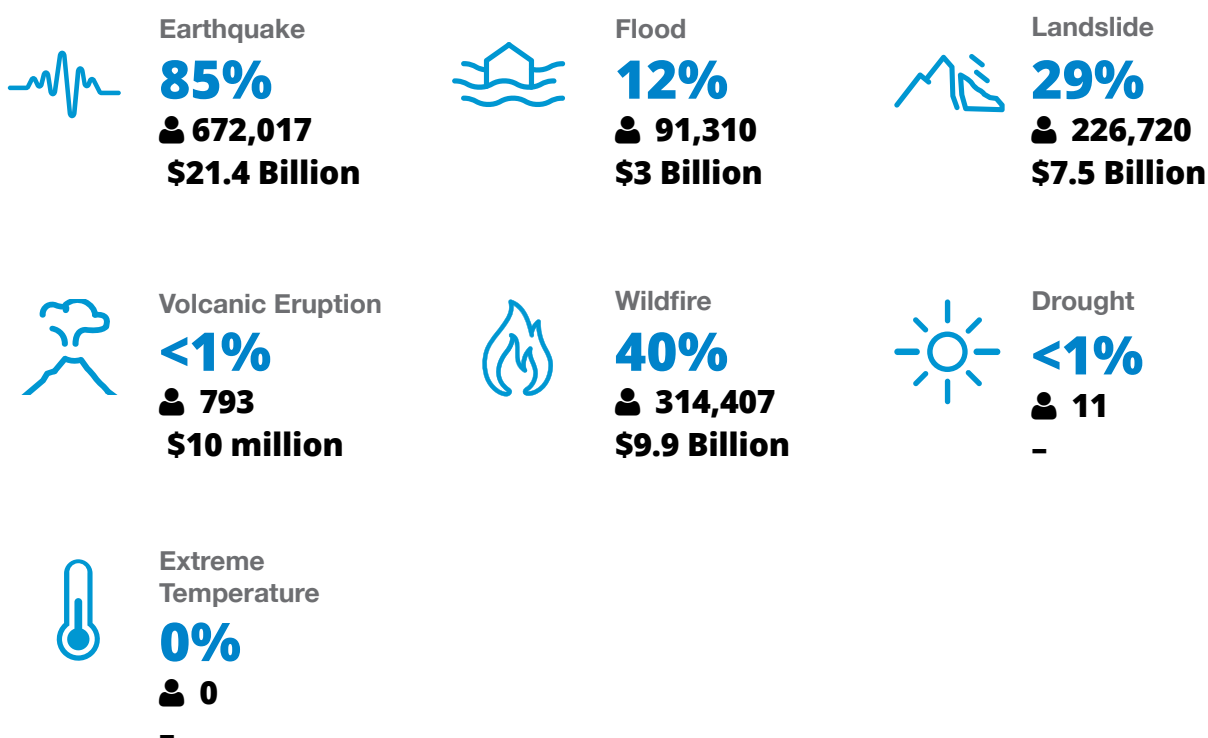
## MULTI-HAZARD EXPOSURE (MHE)

RANK: 13 / 24 PROVINCES

SCORE: 0.478



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







## VULNERABILITY (V)

**RANK: 16 / 24 PROVINCES ASSESSED**  
**SCORE: 0.485**

Vulnerability in Jujuy is primarily driven by Gender Inequality and Vulnerable Health Status. The bar chart indicates the socioeconomic themes contributing to the province's overall Vulnerability score.



### Environmental Stress

**SCORE: 0.41** **RANK: 19/24 PROVINCES ASSESSED**

**2.4%** **39.6**  
Land degradation Land affected by wildfire (per 100k ha)



### Vulnerable Health Status

**SCORE: 0.61** **RANK: 3/24 PROVINCES ASSESSED**

**74.8** **11.6** **3.2** **16.3%** **18.9** **54.1**  
Life expectancy (years) Infant mortality rate (per 1,000 live births) Maternal mortality ratio Disability HIV incidence Tuberculosis incidence



### Clean Water Vulnerability

**SCORE: 0.327** **RANK: 19/24 PROVINCES ASSESSED**

**5.5%** **39.2%**  
Households without piped water Households without sewage services



### Information Access Vulnerability

**SCORE: 0.427** **RANK: 18/24 PROVINCES ASSESSED**

**3.1%** **84.6%** **91.3%** **2.97**  
Illiteracy Rate (Age 10+) Secondary education completion rate School enrollment Education investment per capita (million pesos)



### Economic Constraints

**SCORE: 0.454** **RANK: 18/24 PROVINCES ASSESSED**

**54** **5.6%** **31.7%**  
Economic dependency ratio Unemployment rate Poverty rate



### Gender Inequality

**SCORE: 0.638** **RANK: 10/24 PROVINCES ASSESSED**

**1.88** **40**  
Female to male unemployment Female judiciary seats



### Population Pressures

**SCORE: 0.528** **RANK: 11/24 PROVINCES ASSESSED**

**1.2%**  
Average Annual population change



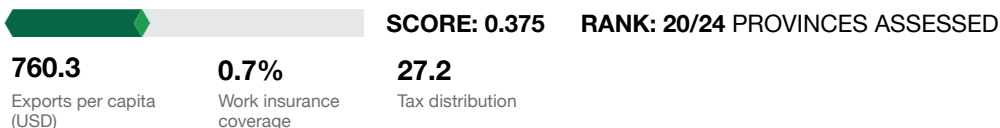
## COPING CAPACITY (CC)

**RANK: 22 / 24 PROVINCES ASSESSED**  
**SCORE: 0.350**

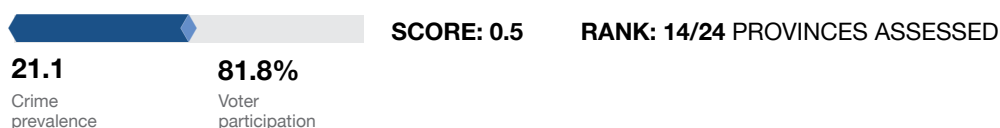
Jujuy exhibits weaker Coping Capacity in the areas of Transportation Capacity and Communications Capacity. The bar chart indicates the socioeconomic themes contributing to the province's overall Coping Capacity score.



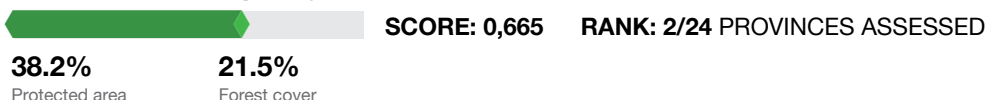
### Economic Capacity



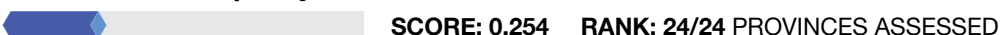
### Governance



### Environmental Capacity



### Infrastructure Capacity



### Health Care Capacity SCORE: 0.416 RANK: 16/24 PROVINCES ASSESSED



### Transportation Capacity SCORE: 0.1 RANK: 24/24 PROVINCES ASSESSED



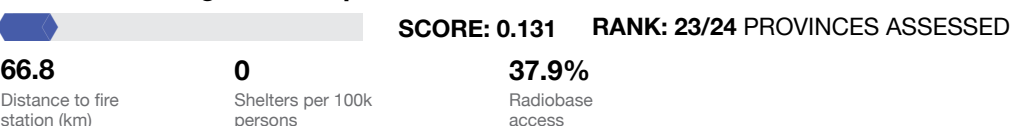
### Communications Capacity SCORE: 0.131 RANK: 21/24 PROVINCES ASSESSED



### Energy Capacity SCORE: 0.37 RANK: 18/24 PROVINCES ASSESSED



### Disaster Management Capabilities





## RESILIENCE (R)

RANK: 17 / 24 PROVINCES

SCORE: 0.433

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

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



Gender  
Inequality



Vulnerable Health  
Status



Transportation  
Capacity



Communications  
Capacity



## HAZARD-SPECIFIC RISK (HSR)



Earthquake

RANK: 4 / 24 PROVINCES ASSESSED

SCORE: 0.501



Wildfire

RANK: 5 / 24 PROVINCES ASSESSED

SCORE: 0.373



Volcano

RANK: 5 / 24 PROVINCES ASSESSED

SCORE: 0.085



Flood

RANK: 8 / 24 PROVINCES ASSESSED

SCORE: 0.297



Landslide

RANK: 5 / 24 PROVINCES ASSESSED

SCORE: 0.278



Drought

RANK: 21 / 24 PROVINCES ASSESSED

SCORE: 0.021



Extreme Temperature

RANK: 14 / 24 PROVINCES ASSESSED

SCORE: 0





## MULTI-HAZARD RISK (MHR)

**12 / 24**

RANK WITHIN PROVINCES  
Score: 0.537

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

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



#### Multi-Hazard Exposure



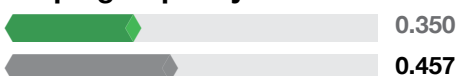
DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



# JUJUY RECOMMENDATIONS

1

## Gender Inequality

Focus efforts to support equal labor participation by diversifying economic opportunities for women in the Province.

Promote social benefit programs that support single parents with children.

Encourage women to participate in the disaster management planning and decision-making process through inclusion community emergency brigades and representation in local government.

2

## Vulnerable Health Status

Findings show that Jujuy Province has the 3rd highest overall Vulnerable Health Status in Argentina. The Province is among Argentina's highest in infectious disease incidence, combined with the 2nd highest rate of disability in the country.

Make provisions for the special needs of disabled persons during disasters, including evacuation, shelter, and medical care.

Continue active health surveillance to prevent the spread of disease and increase availability of skilled health care.

## JUJUY RECOMMENDATIONS

### 3

#### Transportation Capacity

Findings show that Jujuy Province ranks lowest in Argentina in Transportation Capacity. Just 63% of roads are paved and the Province exhibits the greatest average distance to the nearest airport.

Invest in transportation infrastructure to facilitate the distribution of resources and services before, during, and after a disaster.

### 4

#### Communications Capacity

Jujuy ranks 21st in overall Communication Capacity. Just 24% of households have access to the internet – lowest in the country. There are just 12 television subscriptions per 100 people. Pursue public-private partnerships to increase availability and affordability of internet and television communications.

While investing to diversify access to communication technology, officials should broadcast critical information and disaster warnings primarily via alternate media (such as radio) to keep the population informed and ensure that appropriate actions are taken. Jujuy Province is exposed earthquake, wildfire, landslide and flood hazards.

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**ARGENTINA**

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**LA PAMPA**

---

**NDPBA PROVINCE PROFILE**

# ARGENTINA

## LA PAMPA

**CAPITAL: SANTA ROSA**

Area: 142,947 km<sup>2</sup>

La Pampa Province is located in the Central region of Argentina. This Province is divided into 22 Provinces, the Capital being La Pampa. The Province borders the Provinces of Buenos Aires, Córdoba, San Luis, Mendoza, Neuquén and Río Negro. The main economic sources are agriculture and livestock.



## RISK AND VULNERABILITY

### COMPONENT SCORE



**MULTI-HAZARD RISK (MHR) - Very Low**

Score: 0.423 • Rank: 20/24



**RESILIENCE (R) - Very High**

Score: 0.537 • Rank: 3/24



**MULTI-HAZARD EXPOSURE (MHE) - Low**

Score: 0.345 • Rank: 17/24



**VULNERABILITY (V) - Low**

Score: 0.473 • Rank: 17/24



**COPING CAPACITY (CC) - Very High**

Score: 0.548 • Rank: 2/24



Population (2018)

**352,378**



Population in Poverty

**32.1%**



Illiterate population

**1.9%**



Access to improved water

**87.1%**



Average life expectancy

**76.2 years**

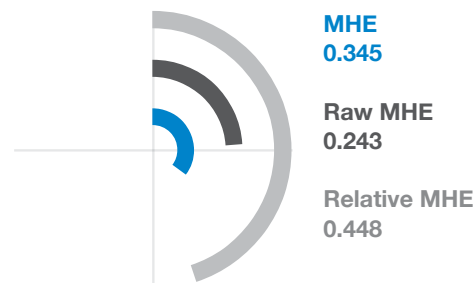
\*For more information on data and components please visit: <https://bit.ly/2LqVoUO>



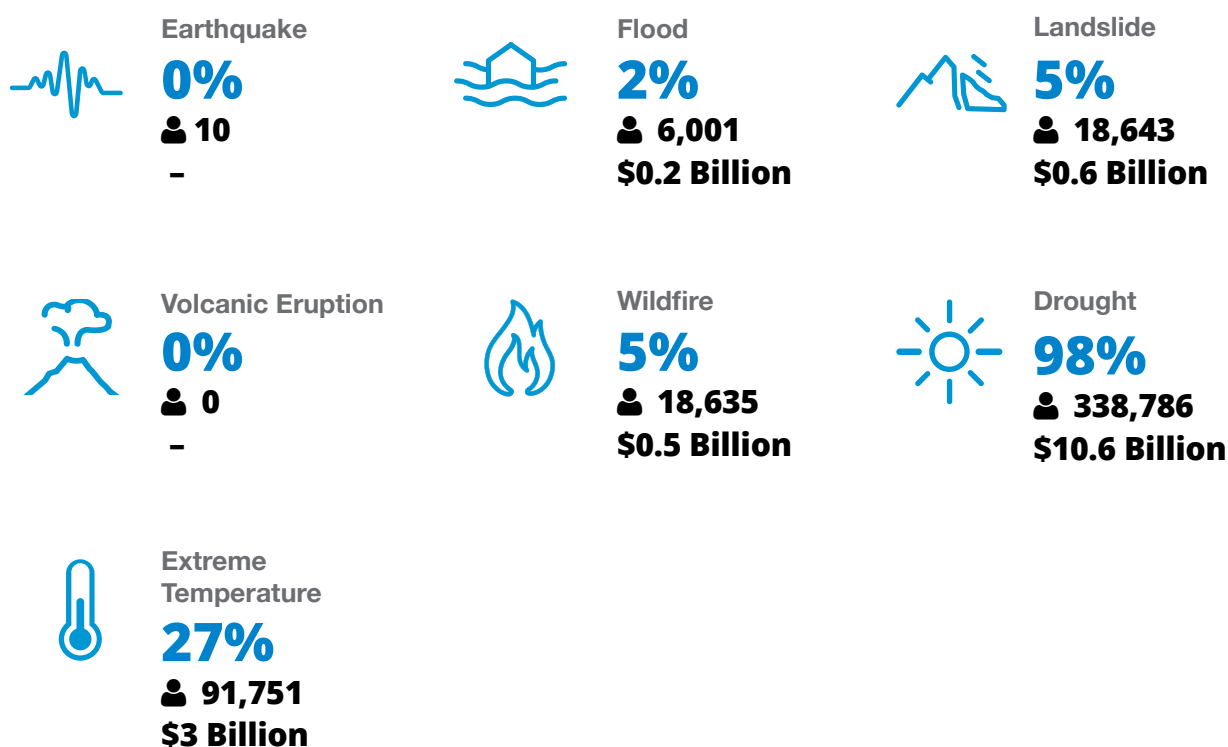
## MULTI-HAZARD EXPOSURE (MHE)

RANK: 17 / 24 PROVINCES

SCORE: 0.345



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





## VULNERABILITY (V)

**RANK: 17 / 24 PROVINCES ASSESSED**  
**SCORE: 0.473**

Vulnerability in La Pampa is primarily driven by Environmental Stress and Gender Inequality. The bar chart indicates the socioeconomic themes contributing to the province's overall Vulnerability score.



### Environmental Stress

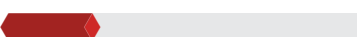


**SCORE: 0.772 RANK: 2/24 PROVINCES ASSESSED**

**6.3%** **6723.4**  
Land  
degradation Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status



**SCORE: 0.243 RANK: 22/24 PROVINCES ASSESSED**

**76.2** **7.9** **1.9** **11.4%** **19.6** **12.3**  
Life expectancy Infant mortality Maternal Disability HIV Tuberculosis  
(years) rate (per 1,000 mortality ratio incidence incidence  
live births)



### Clean Water Vulnerability

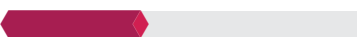


**SCORE: 0.472 RANK: 11/24 PROVINCES ASSESSED**

**12.9%** **41.0%**  
Households Households  
without piped without sewage  
water services



### Information Access Vulnerability



**SCORE: 0.384 RANK: 20/24 PROVINCES ASSESSED**

**1.9%** **82.3%** **89.0%** **3.46**  
Illiteracy Rate Secondary School Education investment per  
(Age 10+) education enrollment capita (million pesos)  
completion rate



### Economic Constraints



**SCORE: 0.485 RANK: 16/24 PROVINCES ASSESSED**

**55.7** **5.1%** **32.1%**  
Economic Unemployment Poverty rate  
dependency rate



### Gender Inequality

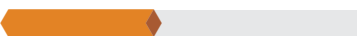


**SCORE: 0.536 RANK: 15/24 PROVINCES ASSESSED**

**1.94** **46.8**  
Female to male Female judiciary  
unemployment seats



### Population Pressures



**SCORE: 0.422 RANK: 22/24 PROVINCES ASSESSED**

**0.9%**  
Average Annual  
population  
change





## COPING CAPACITY (CC)

**RANK: 2 / 24 PROVINCES ASSESSED**  
**SCORE: 0.548**

La Pampa exhibits weaker Coping Capacity in the areas of Disaster Management Capabilities and Health Care Capacity. The bar chart indicates the socioeconomic themes contributing to the province's overall Coping Capacity score.



### Economic Capacity

**SCORE: 0.524 RANK: 7/24 PROVINCES ASSESSED**

**1632**

Exports per capita  
(USD)

**1.0%**

Work insurance  
coverage

**37.4**

Tax distribution



### Governance

**SCORE: 0.775 RANK: 2/24 PROVINCES ASSESSED**

**8.6**

Crime  
prevalence

**81.3%**

Voter  
participation



### Environmental Capacity

**SCORE: 0.182 RANK: 19/24 PROVINCES ASSESSED**

**0.8%**

Protected area

**23.5%**

Forest cover



### Infrastructure Capacity

**SCORE: 0.613 RANK: 5/24 PROVINCES ASSESSED**



### Health Care Capacity SCORE: 0.469 RANK: 13/24 PROVINCES ASSESSED

**34.7**

Hospital beds per  
10,000 people

**35.9**

Physicians per  
10,000 people

**67.7%**

Health insurance  
coverage

**40.1**

Average distance to nearest  
hospital (km<sup>2</sup>)



### Transportation Capacity SCORE: 0.495 RANK: 14/24 PROVINCES ASSESSED

**0.22**

Road density (km per sq. km)

**20.3**

Average distance to port (km)

**89.9%**

Proportion of roads improved



### Communications Capacity SCORE: 0.638 RANK: 4/24 PROVINCES ASSESSED

**42.2%**

Households with Internet

**23.4%**

Television subscriptions per  
100 people



### Energy Capacity SCORE: 0.849 RANK: 3/24 PROVINCES ASSESSED

**97.9%**

Households with electricity

**85.1%**

Households with gas



### Disaster Management Capabilities

**SCORE: 0.443 RANK: 12/24 PROVINCES ASSESSED**

**23.6**

Distance to fire  
station (km)

**0.9**

Shelters per 100k  
persons

**41.4%**

Radiobase  
access



## RESILIENCE (R)

RANK: 3 / 24 PROVINCES

SCORE: 0.537

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

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



Environmental  
Stress



Gender Inequality



Disaster  
Management  
Capabilities



Health Care  
Capacity



## HAZARD-SPECIFIC RISK (HSR)



Earthquake

RANK: 11 / 24 PROVINCES ASSESSED

SCORE: 0.021



Wildfire

RANK: 22 / 24 PROVINCES ASSESSED

SCORE: 0.074



Volcano

RANK: 9 / 24 PROVINCES ASSESSED

SCORE: 0.000



Flood

RANK: 23 / 24 PROVINCES ASSESSED

SCORE: 0.018



Landslide

RANK: 23 / 24 PROVINCES ASSESSED

SCORE: 0.024



Drought

RANK: 11 / 24 PROVINCES ASSESSED

SCORE: 0.396



Extreme Temperature

RANK: 12 / 24 PROVINCES ASSESSED

SCORE: 0.211



## MULTI-HAZARD RISK (MHR)

**20 / 24**

RANK WITHIN PROVINCES  
Score: 0.423

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

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



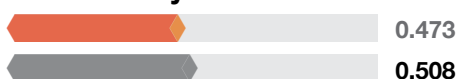
#### Multi-Hazard Exposure



DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



## LA PAMPA RECOMMENDATIONS

1

### Environmental Stress

Focus on protecting environmental resources from degradation, and deforestation. These environmental stresses increase the likelihood of hazard events and have wider implications for negative impacts on health and livelihoods, decreasing resilience.

Focus mitigation efforts to prevent, respond to, and reduce the impact of wildfires.

2

### Gender Inequality

Focus efforts to support equal labor participation by diversifying economic opportunities for women in the Province.

Promote social benefit programs that support single parents with children.

Encourage women to participate in the disaster management planning and decision-making process through inclusion community emergency brigades and representation in local government.

## LA PAMPA RECOMMENDATIONS

### 3

#### Disaster Management Capabilities

Establish designated emergency shelters. Coordinate with the Argentine Red Cross to provide shelter management training for community volunteer and provincial staff.

Pursue public-private partnerships to increase radiobase access to increase availability, security, and resilience of disaster communications.

### 4

#### Health Care Capacity

Findings show that La Pampa Province exhibits the 5th highest average distance to nearest hospital. Reduce disparities in access to hospitals and medical services by ensuring equitable distribution of clinics and health services in rural and vulnerable communities.

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**ARGENTINA**

**LA RIOJA**

**NDPBA PROVINCE PROFILE**

# ARGENTINA

## LA RIOJA

### CAPITAL: LA RIOJA

Area: 91,001 km<sup>2</sup>

La Rioja Province is located in the Cuyo region of Argentina. This Province is divided into 18 Provinces, the Capital being La Rioja. The Province borders Chile and the Provinces of Catamarca, Córdoba, San Luis and San Juan. The main economic sources are grape (wine), livestock and mining (uranium).



## RISK AND VULNERABILITY

### COMPONENT SCORE



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

Score: 0.446 • Rank: 18/24



#### RESILIENCE (R) - High

Score: 0.501 • Rank: 9/24



#### MULTI-HAZARD EXPOSURE (MHE) - Low

Score: 0.339 • Rank: 18/24



#### VULNERABILITY (V) - Very Low

Score: 0.433 • Rank: 21/24



#### COPING CAPACITY (CC) - Low

Score: 0.436 • Rank: 18/24



Population (2018)

**383,220**



Population in Poverty

**30.5%**



Illiterate population

**1.8%**



Access to improved water

**93.7%**



Average life expectancy

**75.3 years**

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

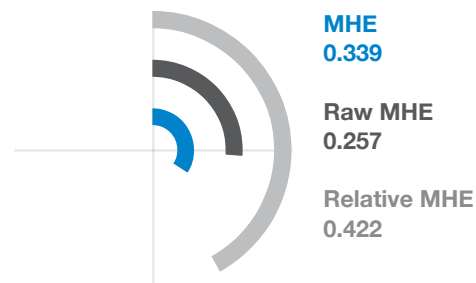




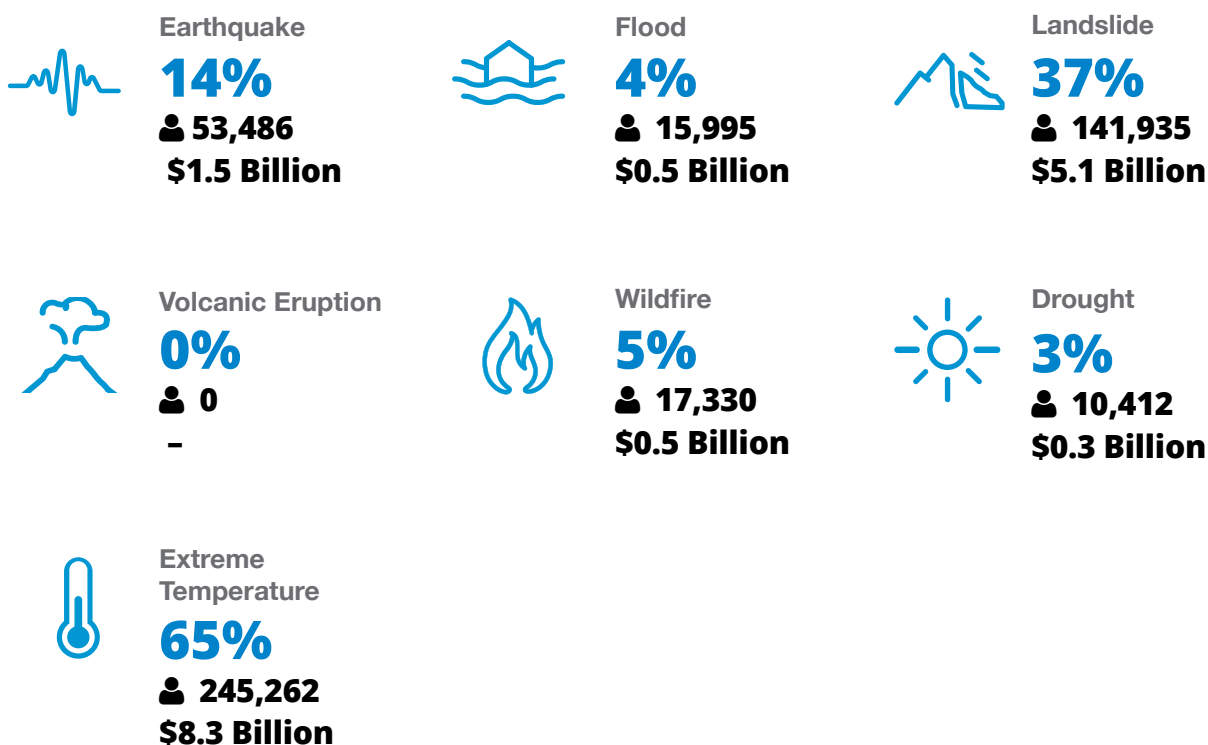
## MULTI-HAZARD EXPOSURE (MHE)

RANK: 18 / 24 PROVINCES

SCORE: 0.339



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





## VULNERABILITY (V)

**RANK: 21 / 24 PROVINCES ASSESSED**  
**SCORE: 0.433**

Vulnerability in La Rioja is primarily driven by Population Pressures and Environmental Stress. The bar chart indicates the socioeconomic themes contributing to the province's overall Vulnerability score.



### Environmental Stress



**SCORE: 0.534 RANK: 12/24 PROVINCES ASSESSED**

**6.3%**

Land  
degradation

**8.2**

Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status



**SCORE: 0.447 RANK: 9/24 PROVINCES ASSESSED**

**75.3**

Life expectancy  
(years)

**9.4**

Infant mortality  
rate (per 1,000  
live births)

**4.9**

Maternal  
mortality ratio

**17.1%**

Disability

**3**

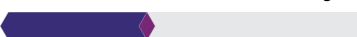
HIV  
incidence

**8.2**

Tuberculosis  
incidence



### Clean Water Vulnerability



**SCORE: 0.402 RANK: 13/24 PROVINCES ASSESSED**

**6.3%**

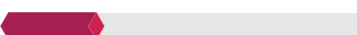
Households  
without piped  
water

**48.9%**

Households  
without sewage  
services



### Information Access Vulnerability



**SCORE: 0.255 RANK: 23/24 PROVINCES ASSESSED**

**1.8%**

Illiteracy Rate  
(Age 10+)

**89.6%**

Secondary  
education  
completion rate

**89.1%**

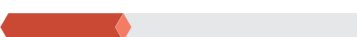
School  
enrollment

**3.7**

Education investment per  
capita (million pesos)



### Economic Constraints



**SCORE: 0.333 RANK: 21/24 PROVINCES ASSESSED**

**49.9**

Economic  
dependency  
ratio

**6.1%**

Unemployment  
rate

**30.5%**

Poverty rate



### Gender Inequality



**SCORE: 0.473 RANK: 18/24 PROVINCES ASSESSED**

**1.86**

Female to male  
unemployment

**53.7**

Female judiciary  
seats



### Population Pressures



**SCORE: 0.588 RANK: 7/24 PROVINCES ASSESSED**

**1.4%**

Average Annual  
population  
change



## COPING CAPACITY (CC)

**RANK: 18 / 24 PROVINCES ASSESSED**  
**SCORE: 0.436**

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



### Economic Capacity



**SCORE: 0.392** **RANK: 18/24 PROVINCES ASSESSED**

**560.5**

Exports per capita  
(USD)

**0.4%**

Work insurance  
coverage

**38.5**

Tax distribution



### Governance



**SCORE: 0.697** **RANK: 5/24 PROVINCES ASSESSED**

**10.8**

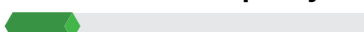
Crime  
prevalence

**80.8%**

Voter  
participation



### Environmental Capacity



**SCORE: 0.173** **RANK: 21/24 PROVINCES ASSESSED**

**7.7%**

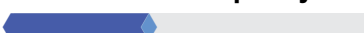
Protected area

**11.5%**

Forest cover



### Infrastructure Capacity



**SCORE: 0.401** **RANK: 15/24 PROVINCES ASSESSED**



### Health Care Capacity

**SCORE: 0.68** **RANK: 3/24 PROVINCES ASSESSED**

**50.3**

Hospital beds per  
10,000 people

**40.9**

Physicians per  
10,000 people

**61.9%**

Health insurance  
coverage

**25.4**

Average distance to nearest  
hospital (km<sup>2</sup>)



### Transportation Capacity

**SCORE: 0.344** **RANK: 18/24 PROVINCES ASSESSED**

**0.07**

Road density (km per sq. km)

**35.9**

Average distance to port (km)

**100.0%**

Proportion of roads improved



### Communications Capacity

**SCORE: 0.188** **RANK: 19/24 PROVINCES ASSESSED**

**34.6%**

Households with Internet

**6.7%**

Television subscriptions per  
100 people



### Energy Capacity

**SCORE: 0.394** **RANK: 17/24 PROVINCES ASSESSED**

**96.4%**

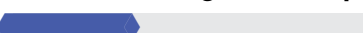
Households with electricity

**14.4%**

Households with gas



### Disaster Management Capabilities



**SCORE: 0.37** **RANK: 14/24 PROVINCES ASSESSED**

**62.8**

Distance to fire  
station (km)

**0.5**

Shelters per 100k  
persons

**50.0%**

Radiobase  
access



## RESILIENCE (R)

**RANK: 9 / 24 PROVINCES**

**SCORE: 0.501**

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

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



**Population Pressures**



**Environmental Stress**



**Communications Capacity**



**Transportation Capacity**



## HAZARD-SPECIFIC RISK (HSR)



**Earthquake**

**RANK: 6 / 24 PROVINCES ASSESSED**

**SCORE: 0.209**



**Wildfire**

**RANK: 21 / 24 PROVINCES ASSESSED**

**SCORE: 0.075**



**Volcano**

**RANK: 9 / 24 PROVINCES ASSESSED**

**SCORE: 0.000**



**Flood**

**RANK: 19 / 24 PROVINCES ASSESSED**

**SCORE: 0.093**



**Landslide**

**RANK: 7 / 24 PROVINCES ASSESSED**

**SCORE: 0.266**



**Drought**

**RANK: 18 / 24 PROVINCES ASSESSED**

**SCORE: 0.129**



**Extreme Temperature**

**RANK: 8 / 24 PROVINCES ASSESSED**

**SCORE: 0.343**



## MULTI-HAZARD RISK (MHR)

**18 / 24**

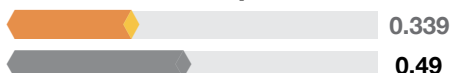
RANK WITHIN PROVINCES  
Score: 0.446

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

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



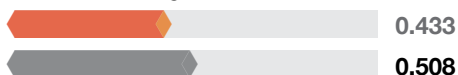
#### Multi-Hazard Exposure



DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



## LA RIOJA RECOMMENDATIONS

### 1

#### Population Pressures

---

La Rioja Province experienced the 7th largest average annual population increase between 2010 and 2019 (1.4%). As population growth steadily increases, closely monitor development to prevent environmental stress and ensure that resource and infrastructure needs are met.

Incorporate multi-hazard mapping and risk assessment into land-use plans and zoning regulations to reduce and prevent development in hazard-prone areas of the Province.

### 2

#### Environmental Stress

---

Focus on protecting environmental resources from degradation, and deforestation. These environmental stresses increase the likelihood of hazard events and have wider implications for negative impacts on health and livelihoods, decreasing resilience.

Focus mitigation efforts to prevent, respond to, and reduce the impact of wildfires.

## LA RIOJA RECOMMENDATIONS

### 3

#### Communications Capacity

La Rioja ranks 19th in overall Communication Capacity. Just 35% of households have access to the internet, and there are just 7 television subscriptions per 100 people. Pursue public-private partnerships to increase availability and affordability of internet and television communications.

While investing to diversify access to communication technology, officials should broadcast critical information and disaster warnings primarily via alternate media (such as radio) to keep the population informed and ensure that appropriate actions are taken. La Rioja Province is exposed to extreme temperature, landslide, earthquake, flood and drought hazards.

### 4

#### Transportation Capacity

Findings show that La Rioja Province ranks 21st in Transportation Capacity. Low road network density combined with large average distances to the nearest airport may reduce the connectivity of people, goods, and services to the Province during a disaster.

Invest in transportation infrastructure to facilitate the distribution of resources and services before, during, and after a disaster.

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Fewer disasters.**

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# ARGENTINA

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# MENDOZA

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## NDPBA PROVINCE PROFILE

# ARGENTINA

## MENDOZA

### CAPITAL: MENDOZA

Area: 148,737 km<sup>2</sup>

Mendoza Province is located in the Cuyo region of Argentina. This Province is divided into 18 Provinces, the Capital being Mendoza. The Province borders Chile and the Provinces of San Juan, San Luis, La Pampa, Río Negro and Neuquén. The main economic sources are agriculture, wine, tourism and mining (lime and uranium).



## RISK AND VULNERABILITY

### COMPONENT SCORE



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

Score: 0.550 • Rank: 9/24



#### RESILIENCE (R) - Low

Score: 0.435 • Rank: 16/24



#### MULTI-HAZARD EXPOSURE (MHE) - Moderate

Score: 0.519 • Rank: 10/24



#### VULNERABILITY (V) - Moderate

Score: 0.525 • Rank: 13/24



#### COPING CAPACITY (CC) - Very Low

Score: 0.395 • Rank: 20/24



Population (2018)

**1,949,293**



Population in Poverty

**30.7%**



Illiterate population

**2.2%**



Access to improved water

**90.5%**



Average life expectancy

**76.3 years**

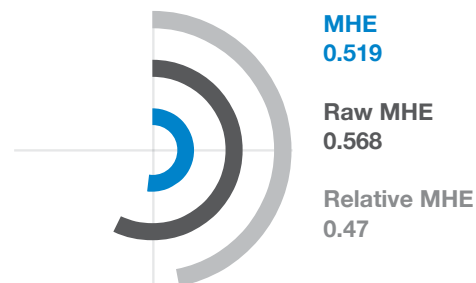
\*For more information on data and components please visit: <https://bit.ly/2LqVoUO>



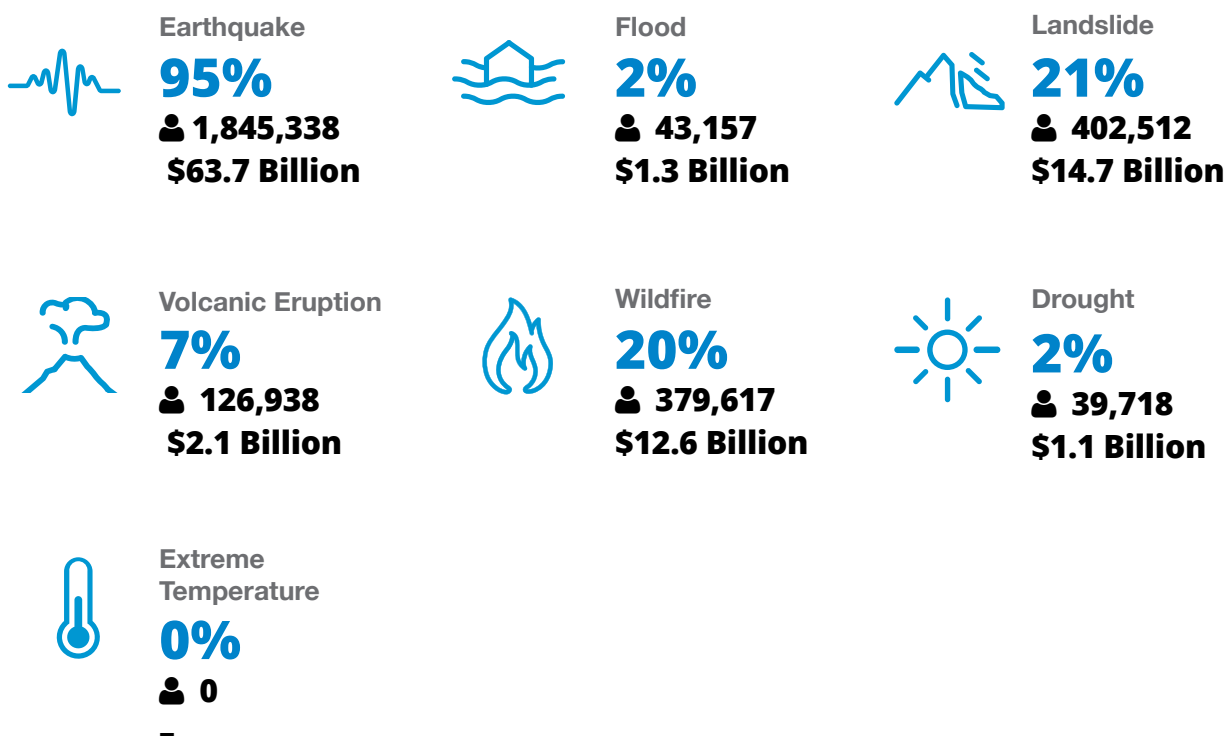
## MULTI-HAZARD EXPOSURE (MHE)

RANK: 10 / 24 PROVINCES

SCORE: 0.519



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





## VULNERABILITY (V)

**RANK: 13 / 24 PROVINCES ASSESSED**  
**SCORE: 0.525**

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



### Environmental Stress



**SCORE: 0.844 RANK: 1/24 PROVINCES ASSESSED**

**10.9%**

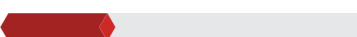
Land  
degradation

**2814**

Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status



**SCORE: 0.287 RANK: 18/24 PROVINCES ASSESSED**

**76.3**

Life expectancy  
(years)

**8**

Infant mortality  
rate (per 1,000  
live births)

**3.9**

Maternal  
mortality ratio

**13.3%**

Disability

**13.6**

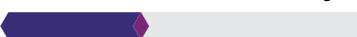
HIV  
incidence

**8.1**

Tuberculosis  
incidence



### Clean Water Vulnerability



**SCORE: 0.385 RANK: 14/24 PROVINCES ASSESSED**

**9.5%**

Households  
without piped  
water

**36.9%**

Households  
without sewage  
services



### Information Access Vulnerability



**SCORE: 0.523 RANK: 13/24 PROVINCES ASSESSED**

**2.2%**

Illiteracy Rate  
(Age 10+)

**80.0%**

Secondary  
education  
completion rate

**89.0%**

School  
enrollment

**2.47**

Education investment per  
capita (million pesos)



### Economic Constraints



**SCORE: 0.727 RANK: 4/24 PROVINCES ASSESSED**

**57.9**

Economic  
dependency  
ratio

**6.9%**

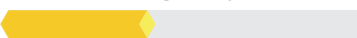
Unemployment  
rate

**30.7%**

Poverty rate



### Gender Inequality



**SCORE: 0.403 RANK: 20/24 PROVINCES ASSESSED**

**2.08**

Female to male  
unemployment

**50.2**

Female judiciary  
seats



### Population Pressures



**SCORE: 0.509 RANK: 13/24 PROVINCES ASSESSED**

**1.2%**

Average Annual  
population  
change



## COPING CAPACITY (CC)

**RANK: 20 / 24 PROVINCES ASSESSED**  
**SCORE: 0.395**

Mendoza 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



**SCORE: 0.418** **RANK: 13/24 PROVINCES ASSESSED**

**694.8**

Exports per capita  
(USD)

**3.9%**

Work insurance  
coverage

**15.4**

Tax distribution



### Governance



**SCORE: 0.517** **RANK: 11/24 PROVINCES ASSESSED**

**18.9**

Crime  
prevalence

**81.1%**

Voter  
participation



### Environmental Capacity



**SCORE: 0.250** **RANK: 17/24 PROVINCES ASSESSED**

**12.2%**

Protected area

**13.6%**

Forest cover



### Infrastructure Capacity



**SCORE: 0.414** **RANK: 14/24 PROVINCES ASSESSED**



### Health Care Capacity

**SCORE: 0.466** **RANK: 14/24 PROVINCES ASSESSED**

**27.7**

Hospital beds per  
10,000 people

**35.9**

Physicians per  
10,000 people

**63.0%**

Health insurance  
coverage

**20.1**

Average distance to nearest  
hospital (km<sup>2</sup>)



### Transportation Capacity

**SCORE: 0.177** **RANK: 23/24 PROVINCES ASSESSED**

**0.13**

Road density (km per sq. km)

**31**

Average distance to port (km)

**78.8%**

Proportion of roads improved



### Communications Capacity

**SCORE: 0.215** **RANK: 18/24 PROVINCES ASSESSED**

**36.0%**

Households with Internet

**7.1%**

Television subscriptions per  
100 people



### Energy Capacity

**SCORE: 0.8**

**RANK: 6/24 PROVINCES ASSESSED**

**98.7%**

Households with electricity

**66.3%**

Households with gas



### Disaster Management Capabilities



**SCORE: 0.293** **RANK: 19/24 PROVINCES ASSESSED**

**55**

Distance to fire  
station (km)

**0.6**

Shelters per 100k  
persons

**40.4%**

Radiobase  
access



## RESILIENCE (R)

**RANK: 16 / 24 PROVINCES**

**SCORE: 0.435**

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

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



**Environmental Stress**



**Economic Constraints**



**Transportation Capacity**



**Communications Capacity**



## HAZARD-SPECIFIC RISK (HSR)



**Earthquake**

**RANK: 2 / 24 PROVINCES ASSESSED**

**SCORE: 0.551**



**Wildfire**

**RANK: 14 / 24 PROVINCES ASSESSED**

**SCORE: 0.287**



**Volcano**

**RANK: 1 / 24 PROVINCES ASSESSED**

**SCORE: 0.500**



**Flood**

**RANK: 17 / 24 PROVINCES ASSESSED**

**SCORE: 0.125**



**Landslide**

**RANK: 6 / 24 PROVINCES ASSESSED**

**SCORE: 0.273**



**Drought**

**RANK: 16 / 24 PROVINCES ASSESSED**

**SCORE: 0.169**



**Extreme Temperature**

**RANK: 14 / 24 PROVINCES ASSESSED**

**SCORE: 0**





## MULTI-HAZARD RISK (MHR)

**9 / 24**

RANK WITHIN PROVINCES  
Score: 0.550

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

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



#### Multi-Hazard Exposure



DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



# MENDOZA RECOMMENDATIONS

1

## Environmental Stress

Focus on protecting environmental resources from degradation, and deforestation. These environmental stresses increase the likelihood of hazard events and have wider implications for negative impacts on health and livelihoods, decreasing resilience.

Focus mitigation efforts to prevent, respond to, and reduce the impact of wildfires.

2

## Economic Constraints

Findings show that Mendoza Province has 2nd highest economic dependency ratio (ratio of non-working age population to working age population). combined with a the 6th highest unemployment.

Consider long-term economic plans that both promote social benefits for elderly, low income, and single-parent households, and allocate the revenue required to balance the costs of these benefits.

Support new business opportunities to diversify livelihoods, create employment opportunities, and generate prospects for equitable distribution of property and economic assets in the Province.



## MENDOZA RECOMMENDATIONS

### 3

#### Transportation Capacity

Findings show that Mendoza Province ranks 23rd in Overall Transportation Capacity. Seventy-nine percent of roads are paved, and the Province exhibits the 4th highest average distance to the nearest airport.

Invest in transportation infrastructure to facilitate the distribution of resources and services before, during, and after a disaster.

### 4

#### Communications Capacity

Mendoza ranks 18th in overall Communication Capacity. Just 36% of households have access to the internet, and there are just 7 television subscriptions per 100 people. Pursue public-private partnerships to increase availability and affordability of internet and television communications.

While investing to diversify access to communication technology, officials should broadcast critical information and disaster warnings primarily via alternate media (such as radio) to keep the population informed and ensure that appropriate actions are taken. Mendoza Province is exposed to earthquakes, landslides, wildfire, volcano, drought, and flood hazards.

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# ARGENTINA

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# MISIONES

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## NDPBA PROVINCE PROFILE

# ARGENTINA

## MISIONES

### CAPITAL: POSADAS

Area: 29,980 km<sup>2</sup>

Misiones Province is located in the Nordeste Argentino (NEA) region of Argentina. This Province is divided into 17 Provinces, the Capital being Misiones. The Province borders Brazil, Paraguay and the Province of Corrientes. The main economic sources are agriculture, tea production and lumber.



## RISK AND VULNERABILITY

### COMPONENT SCORE



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

Score: 0.543 • Rank: 11/24



#### **RESILIENCE (R) - Very Low**

Score: 0.421 • Rank: 20/24



#### **MULTI-HAZARD EXPOSURE (MHE) - Moderate**

Score: 0.470 • Rank: 14/24



#### **VULNERABILITY (V) - Very High**

Score: 0.623 • Rank: 1/24



#### **COPING CAPACITY (CC) - Moderate**

Score: 0.464 • Rank: 13/24



Population (2018)

**1,233,177**



Population in Poverty

**35.7%**



Illiterate population

**4.1%**



Access to improved water

**71.9%**



Average life expectancy

**74.2 years**

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

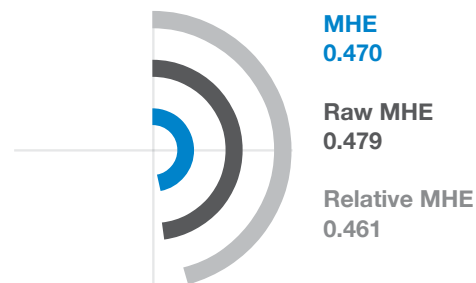




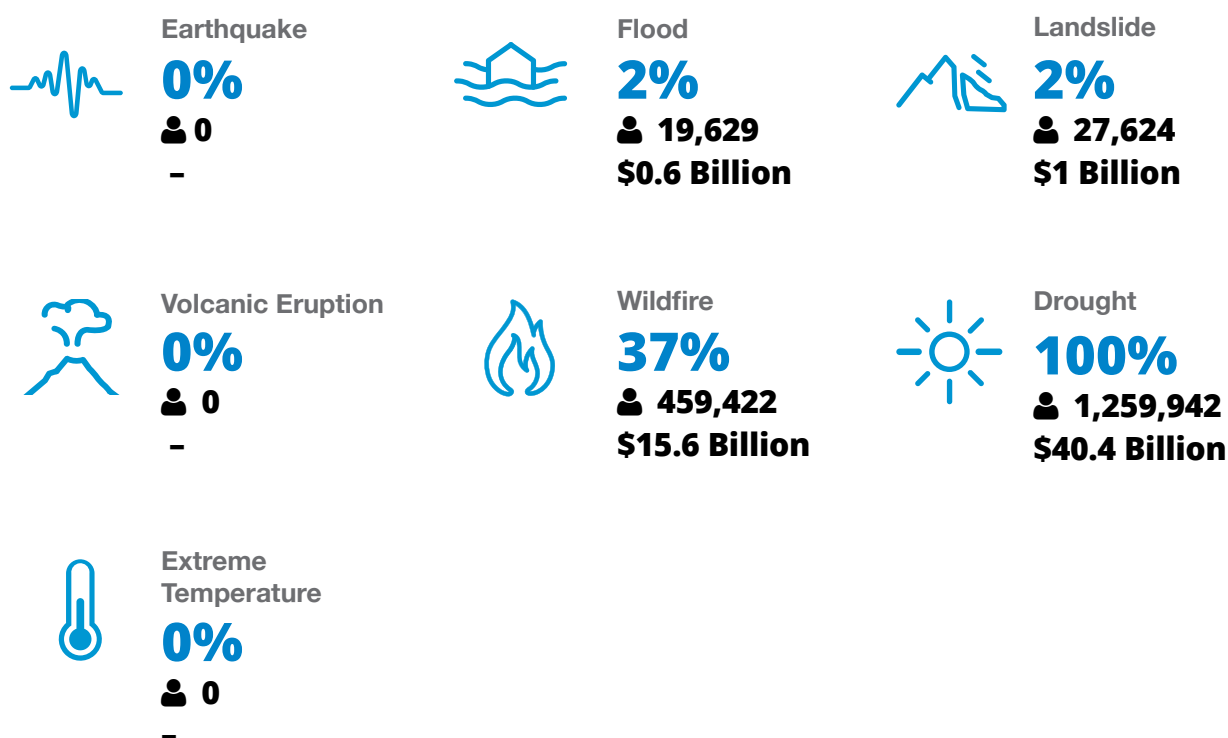
## MULTI-HAZARD EXPOSURE (MHE)

RANK: 14 / 24 PROVINCES

SCORE: 0.470



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





## VULNERABILITY (V)

**RANK: 1 / 24 PROVINCES ASSESSED**  
**SCORE: 0.623**

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



### Environmental Stress



**SCORE: 0.74 RANK: 4/24 PROVINCES ASSESSED**

**13.0%** **59.6**  
Land  
degradation Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status

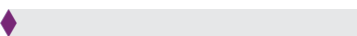


**SCORE: 0.461 RANK: 8/24 PROVINCES ASSESSED**

**74.2** **10.3** **3.9** **14.1%** **5.6** **17.8**  
Life expectancy Infant mortality Maternal Disability HIV Tuberculosis  
(years) rate (per 1,000 live births) mortality ratio incidence incidence



### Clean Water Vulnerability



**SCORE: 1 RANK: 1/24 PROVINCES ASSESSED**

**28.1%** **81.4%**  
Households Households  
without piped without sewage  
water services



### Information Access Vulnerability



**SCORE: 0.562 RANK: 8/24 PROVINCES ASSESSED**

**4.1%** **84.9%** **82.7%** **3.33**  
Illiteracy Rate Secondary School Education investment per  
(Age 10+) education enrollment capita (million pesos)  
completion rate



### Economic Constraints



**SCORE: 0.551 RANK: 12/24 PROVINCES ASSESSED**

**56.9** **5.0%** **35.7%**  
Economic Unemployment Poverty rate  
dependency rate



### Gender Inequality



**SCORE: 0.502 RANK: 16/24 PROVINCES ASSESSED**

**1.74** **41.8**  
Female to male Female judiciary  
unemployment seats



### Population Pressures



**SCORE: 0.545 RANK: 10/24 PROVINCES ASSESSED**

**1.3%**  
Average Annual  
population  
change



## COPING CAPACITY (CC)

**RANK: 13 / 24 PROVINCES ASSESSED**  
**SCORE: 0.464**

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



### Economic Capacity



**SCORE: 0.32**

**RANK: 21/24 PROVINCES ASSESSED**

**289**

Exports per capita  
(USD)

**1.5%**

Work insurance  
coverage

**20.1**

Tax distribution



### Governance



**SCORE: 0.474**

**RANK: 17/24 PROVINCES ASSESSED**

**18.1**

Crime  
prevalence

**79.9%**

Voter  
participation



### Environmental Capacity



**SCORE: 0,649**

**RANK: 3/24 PROVINCES ASSESSED**

**15.7%**

Protected area

**55.0%**

Forest cover



### Infrastructure Capacity



**SCORE: 0.316**

**RANK: 21/24 PROVINCES ASSESSED**



### Health Care Capacity

**SCORE: 0.323**

**RANK: 23/24 PROVINCES ASSESSED**

**28**

Hospital beds per  
10,000 people

**19.7**

Physicians per  
10,000 people

**56.4%**

Health insurance  
coverage

**16.9**

Average distance to nearest  
hospital (km2)



### Transportation Capacity

**SCORE: 0.533**

**RANK: 13/24 PROVINCES ASSESSED**

**0.19**

Road density (km per sq. km)

**21.2**

Average distance to port (km)

**94.5%**

Proportion of roads improved



### Communications Capacity

**SCORE: 0.229**

**RANK: 17/24 PROVINCES ASSESSED**

**30.1%**

Households with Internet

**11.4%**

Television subscriptions per  
100 people



### Energy Capacity

**SCORE: 0.179**

**RANK: 21/24 PROVINCES ASSESSED**

**94.0%**

Households with electricity

**0.0%**

Households with gas



### Disaster Management Capabilities



**SCORE: 0.666**

**RANK: 2/24 PROVINCES ASSESSED**

**18.6**

Distance to fire  
station (km)

**5.7**

Shelters per 100k  
persons

**40.0%**

Radiobase  
access



## RESILIENCE (R)

**RANK: 20 / 24 PROVINCES**

**SCORE: 0.421**

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

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



**Clean Water  
Access  
Vulnerability**



**Environmental  
Stress**



**Energy Capacity**



**Communications  
Capacity**



## HAZARD-SPECIFIC RISK (HSR)



**Earthquake**

**RANK: 13 / 24 PROVINCES ASSESSED**

**SCORE: 0.000**



**Wildfire**

**RANK: 4 / 24 PROVINCES ASSESSED**

**SCORE: 0.389**



**Volcano**

**RANK: 9 / 24 PROVINCES ASSESSED**

**SCORE: 0.000**



**Flood**

**RANK: 21 / 24 PROVINCES ASSESSED**

**SCORE: 0.080**



**Landslide**

**RANK: 22 / 24 PROVINCES ASSESSED**

**SCORE: 0.037**



**Drought**

**RANK: 3 / 24 PROVINCES ASSESSED**

**SCORE: 0.527**



**Extreme Temperature**

**RANK: 14 / 24 PROVINCES ASSESSED**

**SCORE: 0**





## MULTI-HAZARD RISK (MHR)

**11 / 24**

RANK WITHIN PROVINCES  
Score: 0.543

Misiones's score and ranking are due to Moderate Multi-hazard exposure combined with Very High Vulnerability and Moderate Coping Capacity scores.

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



#### Multi-Hazard Exposure



DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



# MISIONES RECOMMENDATIONS

## 1

### Clean Water Access Vulnerability

Findings show that Misiones Province ranks highest in Argentina in Overall Clean Water Access Vulnerability. Over 28% of homes in Misiones Province do not have access to piped water, and 81% are not connected to sewer services. Invest in improved water and sanitation infrastructure to increase access to clean water and reduce health risks.

Findings show a high risk of drought and wildfire in Misiones Province. Protect the agricultural sector by investing in infrastructure to promote water conservation and support farmers through training and education on drought resistant crop varieties and farming practices to reduce water stress and drought impacts.

## 2

### Environmental Stress

Focus on protecting environmental resources from degradation, and deforestation. These environmental stresses increase the likelihood of hazard events and have wider implications for negative impacts on health and livelihoods, decreasing resilience.

Focus mitigation efforts to prevent, respond to, and reduce the impact of wildfires.

## MISIONES RECOMMENDATIONS

3

### Energy Capacity

Misiones Province ranks 21st in overall Energy Capacity, with 94% of households reporting connection to the electricity network, and 0 households connected to the natural gas network. Focus development programs on increasing energy capacity by establishing sustainable power generation in underserved communities and extending the existing transmission and distribution network.

4

### Communications Capacity

Misiones ranks 17th in overall Communication Capacity. Just 30% of households have access to the internet, and there are just 11 television subscriptions per 100 people. Pursue public-private partnerships to increase availability and affordability of internet and television communications.

While investing to diversify access to communication technology, officials should broadcast critical information and disaster warnings primarily via alternate media (such as radio) to keep the population informed and ensure that appropriate actions are taken. Misiones Province is exposed to drought, wildfire, flood and landslide hazards.

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# ARGENTINA

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# NEUQUÉN

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## NDPBA PROVINCE PROFILE

# ARGENTINA NEUQUÉN

## CAPITAL: NEUQUÉN

Area: 94,630 km<sup>2</sup>

Neuquén Province is located in the Patagonia region of Argentina. This Province is divided into 16 Provinces, the Capital being Neuquén. The Province borders Chile and the Provinces of Mendoza, La Pampa and Río Negro. The main economic sources are mining, gas, petroleum, energy production and some agriculture.



## RISK AND VULNERABILITY COMPONENT SCORE



### MULTI-HAZARD RISK (MHR) - Very Low

Score: 0.392 • Rank: 22/24



### RESILIENCE (R) - Very High

Score: 0.535 • Rank: 4/24



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

Score: 0.247 • Rank: 22/24



### VULNERABILITY (V) - Very Low

Score: 0.432 • Rank: 22/24



### COPING CAPACITY (CC) - High

Score: 0.502 • Rank: 7/24



Population (2018)

**646,784**



Population in Poverty

**27.1%**



Illiterate population

**2.3%**



Access to improved water

**93.6%**



Average life expectancy

**77.3 years**

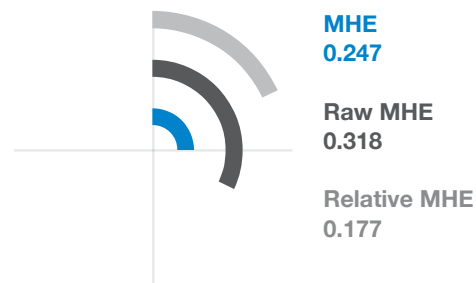
\*For more information on data and components please visit: <https://bit.ly/2LqVoUO>



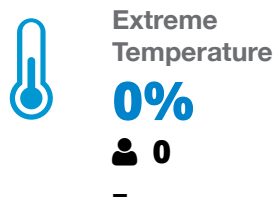
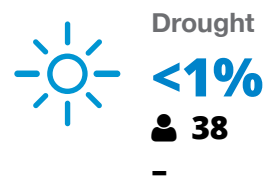
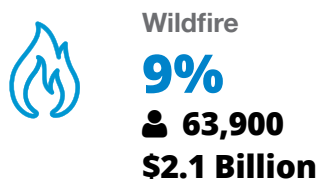
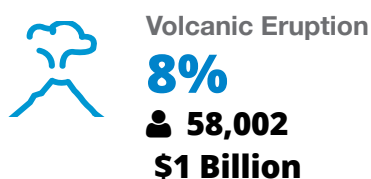
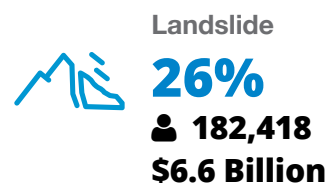
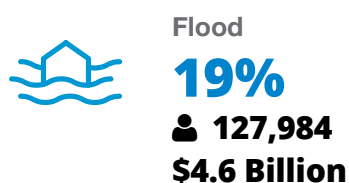
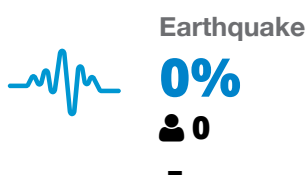
## MULTI-HAZARD EXPOSURE (MHE)

RANK: 22 / 24 PROVINCES

SCORE: 0.247



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





## VULNERABILITY (V)

**RANK: 22 / 24 PROVINCES ASSESSED**  
**SCORE: 0.432**

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



### Environmental Stress



**SCORE: 0.645 RANK: 8/24 PROVINCES ASSESSED**

**7.5%**

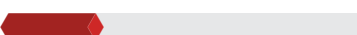
Land  
degradation

**72.1**

Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status



**SCORE: 0.253 RANK: 21/24 PROVINCES ASSESSED**

**77.3**

Life expectancy  
(years)

**7.5**

Infant mortality  
rate (per 1,000  
live births)

**1.8**

Maternal  
mortality ratio

**15.1%**

Disability

**17.6**

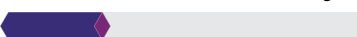
HIV  
incidence

**7.1**

Tuberculosis  
incidence



### Clean Water Vulnerability



**SCORE: 0.272 RANK: 20/24 PROVINCES ASSESSED**

**6.4%**

Households  
without piped  
water

**27.9%**

Households  
without sewage  
services



### Information Access Vulnerability



**SCORE: 0.592 RANK: 6/24 PROVINCES ASSESSED**

**2.3%**

Illiteracy Rate  
(Age 10+)

**72.7%**

Secondary  
education  
completion rate

**90.5%**

School  
enrollment

**2.67**

Education investment per  
capita (million pesos)



### Economic Constraints



**SCORE: 0.433 RANK: 19/24 PROVINCES ASSESSED**

**52.8**

Economic  
dependency  
ratio

**6.3%**

Unemployment  
rate

**27.1%**

Poverty rate



### Gender Inequality



**SCORE: 0.201 RANK: 24/24 PROVINCES ASSESSED**

**1.62**

Female to male  
unemployment

**52**

Female judiciary  
seats



### Population Pressures



**SCORE: 0.627 RANK: 4/24 PROVINCES ASSESSED**

**1.6%**

Average Annual  
population  
change





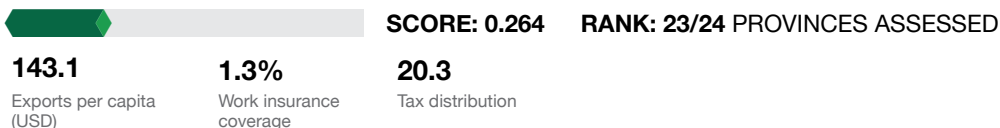
## COPING CAPACITY (CC)

**RANK: 7 / 24 PROVINCES ASSESSED**  
**SCORE: 0.502**

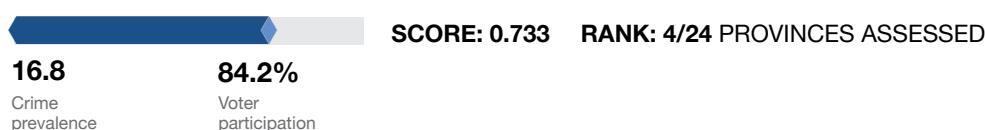
Neuquén exhibits weaker Coping Capacity in the areas of Economic Capacity and Communications Capacity. The bar chart indicates the socioeconomic themes contributing to the province's overall Coping Capacity score.



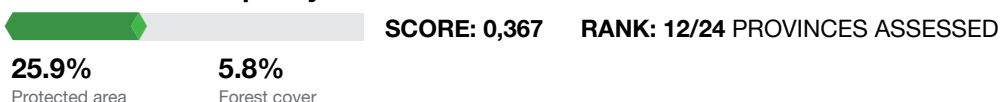
### Economic Capacity



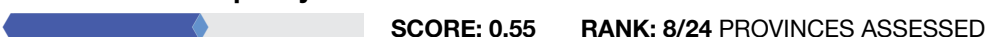
### Governance



### Environmental Capacity



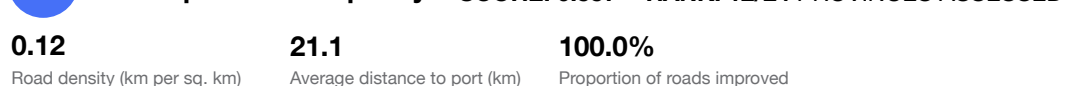
### Infrastructure Capacity



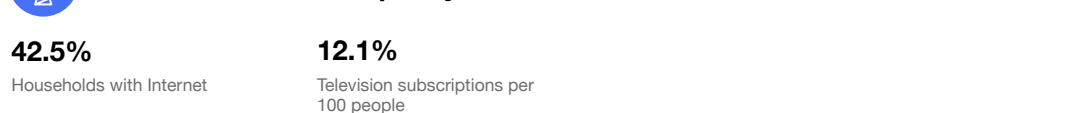
### Health Care Capacity



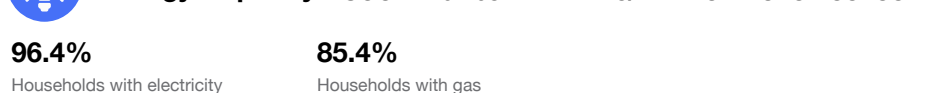
### Transportation Capacity



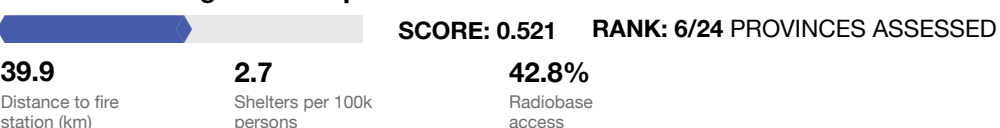
### Communications Capacity



### Energy Capacity



### Disaster Management Capabilities





## RESILIENCE (R)

**RANK: 4 / 24 PROVINCES**

**SCORE: 0.535**

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

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



**Environmental Stress**



**Population Pressures**



**Economic Capacity**



**Communications Capacity**



## HAZARD-SPECIFIC RISK (HSR)



**Earthquake**

**RANK: 13 / 24 PROVINCES ASSESSED**

**SCORE: 0.000**



**Wildfire**

**RANK: 19 / 24 PROVINCES ASSESSED**

**SCORE: 0.136**



**Volcano**

**RANK: 2 / 24 PROVINCES ASSESSED**

**SCORE: 0.394**



**Flood**

**RANK: 6 / 24 PROVINCES ASSESSED**

**SCORE: 0.340**



**Landslide**

**RANK: 12 / 24 PROVINCES ASSESSED**

**SCORE: 0.212**



**Drought**

**RANK: 20 / 24 PROVINCES ASSESSED**

**SCORE: 0.032**



**Extreme Temperature**

**RANK: 14 / 24 PROVINCES ASSESSED**

**SCORE: 0**



## MULTI-HAZARD RISK (MHR)

**22 / 24**

RANK WITHIN PROVINCES  
Score: 0.392

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

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



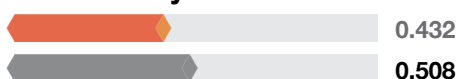
#### Multi-Hazard Exposure



DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



# NEUQUÉN RECOMMENDATIONS

1

## Environmental Stress

---

Focus on protecting environmental resources from degradation, and deforestation. These environmental stresses increase the likelihood of hazard events and have wider implications for negative impacts on health and livelihoods, decreasing resilience.

Focus mitigation efforts to prevent, respond to, and reduce the impact of wildfires.

2

## Population Pressures

---

Neuquén Province experienced the 7th largest average annual population increase between 2010 and 2019 (1.6%). As population growth steadily increases, closely monitor development to prevent environmental stress and ensure that resource and infrastructure needs are met.

Incorporate multi-hazard mapping and risk assessment into land-use plans and zoning regulations to reduce and prevent development in hazard-prone areas of the Province.

# NEUQUÉN RECOMMENDATIONS

## 3

### Economic Capacity

Findings show that Neuquén Province has the 2nd lowest overall Economic Capacity in Argentina. Low per capita exports (\$143) combined with a smaller share of employers with national work insurance and a lower per capita tax distribution may affect economic protection and inhibit the Province's ability to quickly mobilize financial assets during a disaster.

Continue to encourage programs that diversify the economy in Neuquén Province to generate public revenue, increase household incomes, and support small businesses.

## 4

### Communications Capacity

Neuquén ranks 10th in overall Communication Capacity. Pursue public-private partnerships to increase availability and affordability of internet and television communications.

While investing to diversify access to communication technology, officials should broadcast critical information and disaster warnings primarily via alternate media (such as radio) to keep the population informed and ensure that appropriate actions are taken. Neuquén Province has increased risk to volcano, flood, landslide, and wildfire hazards.

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**ARGENTINA**

---

**RÍO NEGRO**

---

**NDPBA PROVINCE PROFILE**



# ARGENTINA

## RÍO NEGRO

### CAPITAL: VIEDMA

Area: 202,560 km<sup>2</sup>

Río Negro Province is located in the Patagonia region of Argentina. This Province is divided into 13 Provinces, the Capital being Río Negro. The Province borders Chile and the Provinces of Neuquén, Mendoza, La Pampa, Buenos Aires and Chubut. The main economic sources are agriculture, manufacturing, gold mining and services.



## RISK AND VULNERABILITY

### COMPONENT SCORE



#### MULTI-HAZARD RISK (MHR) - Very Low

Score: 0.41 • Rank: 21/24



#### RESILIENCE (R) - High

Score: 0.523 • Rank: 5/24



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

Score: 0.277 • Rank: 20/24



#### VULNERABILITY (V) - Very Low

Score: 0.449 • Rank: 20/24



#### COPING CAPACITY (CC) - High

Score: 0.495 • Rank: 8/24



Population (2018)

**728,403**



Population in Poverty

**29.7%**



Illiterate population

**2.5%**



Access to improved water

**92.1%**



Average life expectancy

**76.4 years**

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

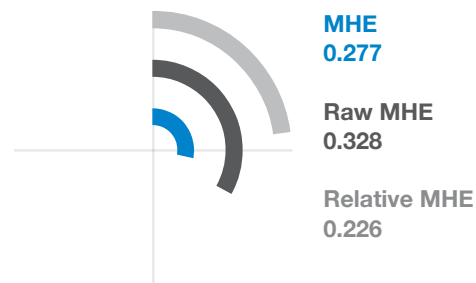




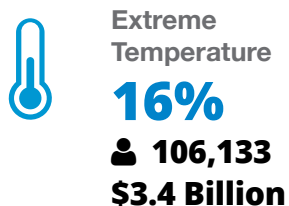
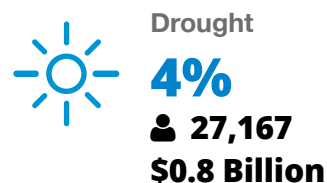
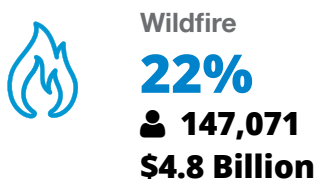
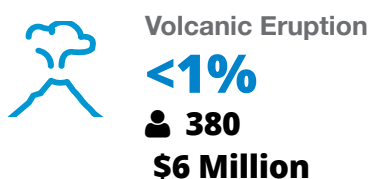
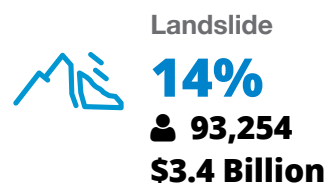
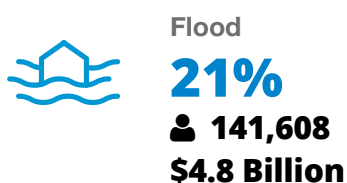
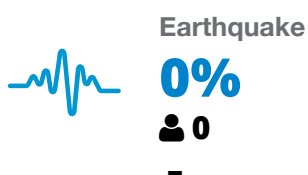
## MULTI-HAZARD EXPOSURE (MHE)

RANK: 20 / 24 PROVINCES

SCORE: 0.277



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





## VULNERABILITY (V)

**RANK: 20 / 24 PROVINCES ASSESSED**  
**SCORE: 0.449**

Vulnerability in Río Negro is primarily driven by Population Pressures and Information Access Vulnerability. The bar chart indicates the socioeconomic themes contributing to the province's overall Vulnerability score.



### Environmental Stress

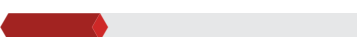


**SCORE: 0.426 RANK: 18/24 PROVINCES ASSESSED**

**1.8%** **300.8**  
Land  
degradation Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status

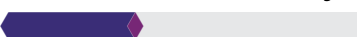


**SCORE: 0.266 RANK: 20/24 PROVINCES ASSESSED**

**76.4** **7** **1.7** **14.5%** **15.7** **8.9**  
Life expectancy Infant mortality Maternal Disability HIV Tuberculosis  
(years) rate (per 1,000 mortality ratio incidence incidence  
live births)



### Clean Water Vulnerability



**SCORE: 0.368 RANK: 16/24 PROVINCES ASSESSED**

**7.9%** **38.9%**  
Households Households  
without piped without sewage  
water services



### Information Access Vulnerability



**SCORE: 0.565 RANK: 7/24 PROVINCES ASSESSED**

**2.5%** **75.8%** **89.9%** **2.67**  
Illiteracy Rate Secondary School Education investment per  
(Age 10+) education enrollment capita (million pesos)  
completion rate



### Economic Constraints



**SCORE: 0.47 RANK: 17/24 PROVINCES ASSESSED**

**53.2** **6.3%** **29.7%**  
Economic Unemployment Poverty rate  
dependency rate



### Gender Inequality



**SCORE: 0.443 RANK: 19/24 PROVINCES ASSESSED**

**1.76** **45.3**  
Female to male Female judiciary  
unemployment seats



### Population Pressures



**SCORE: 0.604 RANK: 5/24 PROVINCES ASSESSED**

**1.5%**  
Average Annual  
population  
change



## COPING CAPACITY (CC)

**RANK: 8 / 24 PROVINCES ASSESSED**  
**SCORE: 0.495**

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



### Economic Capacity



**SCORE: 0.404** **RANK: 16/24 PROVINCES ASSESSED**

**558.7**

Exports per capita  
(USD)

**1.6%**

Work insurance  
coverage

**25.2**

Tax distribution



### Governance



**SCORE: 0.74** **RANK: 3/24 PROVINCES ASSESSED**

**8.1**

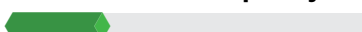
Crime  
prevalence

**80.4%**

Voter  
participation



### Environmental Capacity



**SCORE: 0.260** **RANK: 15/24 PROVINCES ASSESSED**

**20.1%**

Protected area

**2.3%**

Forest cover



### Infrastructure Capacity



**SCORE: 0.495** **RANK: 12/24 PROVINCES ASSESSED**



### Health Care Capacity

**SCORE: 0.509** **RANK: 7/24 PROVINCES ASSESSED**

**30.9**

Hospital beds per  
10,000 people

**38.9**

Physicians per  
10,000 people

**65.6%**

Health insurance  
coverage

**25.5**

Average distance to nearest  
hospital (km<sup>2</sup>)



### Transportation Capacity

**SCORE: 0.42** **RANK: 15/24 PROVINCES ASSESSED**

**0.09**

Road density (km per sq. km)

**18.3**

Average distance to port (km)

**90.3%**

Proportion of roads improved



### Communications Capacity

**SCORE: 0.257** **RANK: 13/24 PROVINCES ASSESSED**

**27.1%**

Households with Internet

**14.8%**

Television subscriptions per  
100 people



### Energy Capacity

**SCORE: 0.793** **RANK: 7/24 PROVINCES ASSESSED**

**97.3%**

Households with electricity

**80.5%**

Households with gas



### Disaster Management Capabilities



**SCORE: 0.447** **RANK: 10/24 PROVINCES ASSESSED**

**51.2**

Distance to fire  
station (km)

**1.1**

Shelters per 100k  
persons

**48.0%**

Radiobase  
access



## RESILIENCE (R)

RANK: 5 / 24 PROVINCES

SCORE: 0.523

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

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



Population Pressures



Information Access Vulnerability



Communications Capacity



Economic Capacity



## HAZARD-SPECIFIC RISK (HSR)



Earthquake

RANK: 13 / 24 PROVINCES ASSESSED

SCORE: 0.000



Wildfire

RANK: 15 / 24 PROVINCES ASSESSED

SCORE: 0.217



Volcano

RANK: 6 / 24 PROVINCES ASSESSED

SCORE: 0.062



Flood

RANK: 4 / 24 PROVINCES ASSESSED

SCORE: 0.372



Landslide

RANK: 17 / 24 PROVINCES ASSESSED

SCORE: 0.135



Drought

RANK: 17 / 24 PROVINCES ASSESSED

SCORE: 0.141



Extreme Temperature

RANK: 13 / 24 PROVINCES ASSESSED

SCORE: 0.192



## MULTI-HAZARD RISK (MHR)

**21 / 24**

RANK WITHIN PROVINCES  
Score: 0.41

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

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



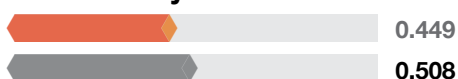
#### Multi-Hazard Exposure



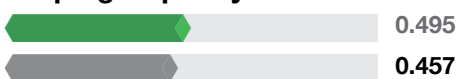
DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



# RÍO NEGRO RECOMMENDATIONS

## 1

### Population Pressures

Río Negro Province experienced the 5th largest average annual population increase between 2010 and 2019 (1.5%). As population growth steadily increases, closely monitor development to prevent environmental stress and ensure that resource and infrastructure needs are met.

Incorporate multi-hazard mapping and risk assessment into land-use plans and zoning regulations to reduce and prevent development in hazard-prone areas of the Province.

## 2

### Information Access Vulnerability

Findings show that Río Negro Province has the 7th highest Information Access Vulnerability, driven primarily by a low degree completion rate. Focus interventions on reducing school dropout rates. Ensure that the Province has the human resources needed to support education through the secondary level.

Encourage whole-of-community education to ensure support for education outside of the classroom, including volunteerism, school-to-work programs, and community-based learning projects.

# RÍO NEGRO RECOMMENDATIONS

## 3

### Communications Capacity

Río Negro Province ranks 13th in overall Communication Capacity. Pursue public-private partnerships to increase availability and affordability of internet and television communications.

While investing to diversify access to communication technology, officials should broadcast critical information and disaster warnings primarily via alternate media (such as radio) to keep the population informed and ensure that appropriate actions are taken. Río Negro Province has increased risk to flood, landslide, wildfire, and extreme temperature hazards.

## 4

### Economic Capacity

Findings show that Río Negro Province ranks 16th in overall Economic Capacity. Low per capita exports (\$559) combined with a smaller share of employers with national work insurance and a lower per capita tax distribution may affect economic protection and inhibit the Province's ability to quickly mobilize financial assets during a disaster.

Continue to encourage programs that diversify the economy in Río Negro Province to generate public revenue, increase household incomes, and support small businesses.

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**ARGENTINA**

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**SALTA**

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**NDPBA PROVINCE PROFILE**

# ARGENTINA

## SALTA

### CAPITAL: SALTA

Area: 155,354 km<sup>2</sup>

Salta Province is located in the Noroeste Argentino (NOA) region of Argentina. This Province is divided into 23 Provinces, the Capital being Salta. The Province borders Bolivia, Chile, Paraguay and the Provinces of Jujuy, Formosa, Chaco, Santiago del Estero, Tucumán and Catamarca. The main economic sources are manufacturing, gas, petroleum, oil refinery, mining and some agriculture.



## RISK AND VULNERABILITY

### COMPONENT SCORE



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

Score: 0.585 • Rank: 6/24



#### RESILIENCE (R) - Very Low

Score: 0.368 • Rank: 24/24



#### MULTI-HAZARD EXPOSURE (MHE) - Moderate

Score: 0.492 • Rank: 12/24



#### VULNERABILITY (V) - High

Score: 0.563 • Rank: 6/24



#### COPING CAPACITY (CC) - Very Low

Score: 0.3 • Rank: 24/24



Population (2018)

**1,388,532**



Population in Poverty

**37.7%**



Illiterate population

**3.1%**



Access to improved water

**91.2%**



Average life expectancy

**74.9 years**

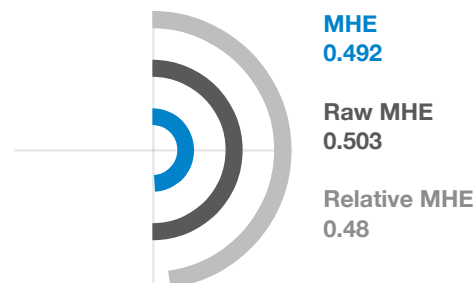
\*For more information on data and components please visit: <https://bit.ly/2LqVoUO>



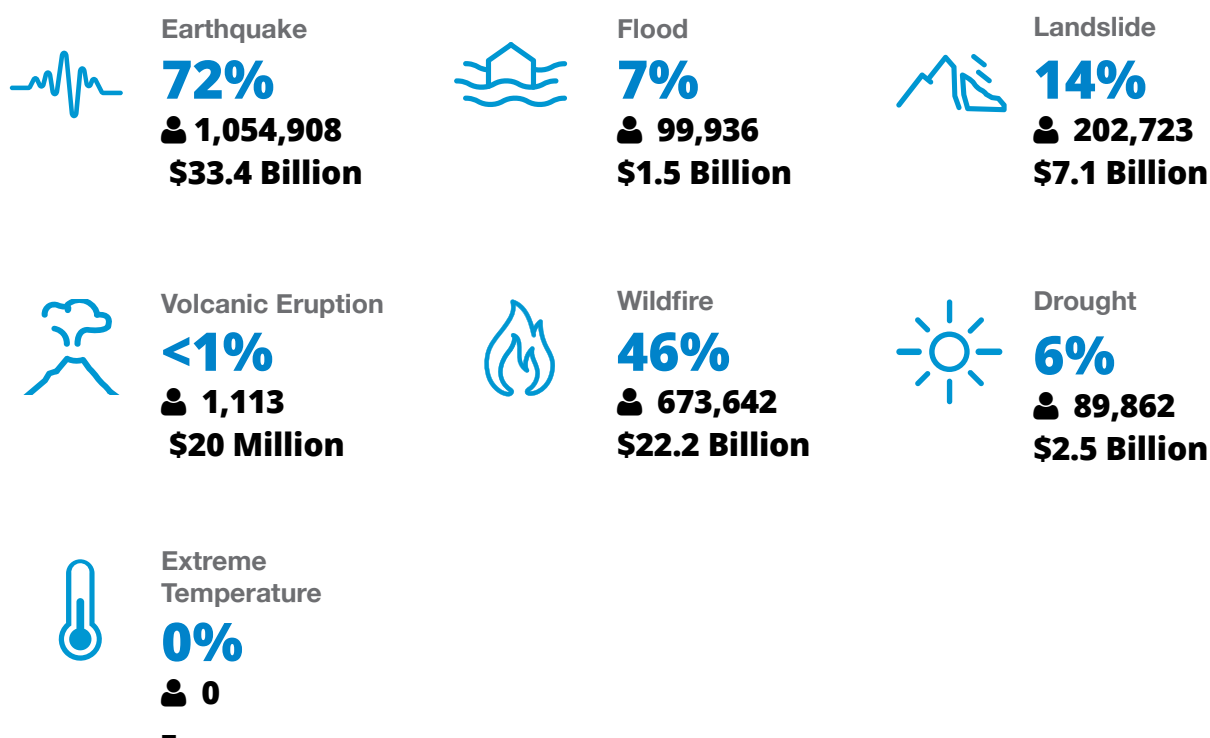
## MULTI-HAZARD EXPOSURE (MHE)

RANK: 12 / 24 PROVINCES

SCORE: 0.492



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





## VULNERABILITY (V)

**RANK: 6 / 24 PROVINCES ASSESSED**  
**SCORE: 0.563**

Vulnerability in Salta is primarily driven by Economic Constraints and Vulnerable Health Status. The bar chart indicates the socioeconomic themes contributing to the province's overall Vulnerability score.



### Environmental Stress



**SCORE: 0.454 RANK: 16/24 PROVINCES ASSESSED**

**3.2%**

Land  
degradation

**28.8**

Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status



**SCORE: 0.664 RANK: 2/24 PROVINCES ASSESSED**

**74.9**

Life expectancy  
(years)

**11.8**

Infant mortality  
rate (per 1,000  
live births)

**6.5**

Maternal  
mortality ratio

**16.2%**

Disability

**17.6**

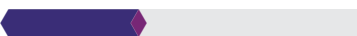
HIV  
incidence

**50.7**

Tuberculosis  
incidence



### Clean Water Vulnerability



**SCORE: 0.378 RANK: 15/24 PROVINCES ASSESSED**

**8.8%**

Households  
without piped  
water

**37.9%**

Households  
without sewage  
services



### Information Access Vulnerability



**SCORE: 0.496 RANK: 16/24 PROVINCES ASSESSED**

**3.1%**

Illiteracy Rate  
(Age 10+)

**82.7%**

Secondary  
education  
completion rate

**88.5%**

School  
enrollment

**2.95**

Education investment per  
capita (million pesos)



### Economic Constraints



**SCORE: 0.871 RANK: 1/24 PROVINCES ASSESSED**

**58.3**

Economic  
dependency  
ratio

**7.6%**

Unemployment  
rate

**37.7%**

Poverty rate



### Gender Inequality



**SCORE: 0.488 RANK: 17/24 PROVINCES ASSESSED**

**1.8**

Female to male  
unemployment

**45.2**

Female judiciary  
seats



### Population Pressures



**SCORE: 0.593 RANK: 6/24 PROVINCES ASSESSED**

**1.5%**

Average Annual  
population  
change



## COPING CAPACITY (CC)

**RANK: 24 / 24 PROVINCES ASSESSED**  
**SCORE: 0.3**

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



### Economic Capacity



**SCORE: 0.39**

**RANK: 19/24 PROVINCES ASSESSED**

**804.1**

Exports per capita  
(USD)

**1.5%**

Work insurance  
coverage

**20.6**

Tax distribution



### Governance



**SCORE: 0.073**

**RANK: 24/24 PROVINCES ASSESSED**

**26.4**

Crime  
prevalence

**76.1%**

Voter  
participation



### Environmental Capacity



**SCORE: 0,678**

**RANK: 1/24 PROVINCES ASSESSED**

**18.1%**

Protected area

**54.7%**

Forest cover



### Infrastructure Capacity



**SCORE: 0.284**

**RANK: 23/24 PROVINCES ASSESSED**



### Health Care Capacity

**SCORE: 0.379**

**RANK: 18/24 PROVINCES ASSESSED**

**33.2**

Hospital beds per  
10,000 people

**24.8**

Physicians per  
10,000 people

**52.4%**

Health insurance  
coverage

**18.1**

Average distance to nearest  
hospital (km2)



### Transportation Capacity

**SCORE: 0.246**

**RANK: 20/24 PROVINCES ASSESSED**

**0.17**

Road density (km per sq. km)

**22.4**

Average distance to port (km)

**75.5%**

Proportion of roads improved



### Communications Capacity

**SCORE: 0.236**

**RANK: 16/24 PROVINCES ASSESSED**

**27.9%**

Households with Internet

**13.2%**

Television subscriptions per  
100 people



### Energy Capacity

**SCORE: 0.276**

**RANK: 19/24 PROVINCES ASSESSED**

**91.9%**

Households with electricity

**42.3%**

Households with gas



### Disaster Management Capabilities



**SCORE: 0.285**

**RANK: 21/24 PROVINCES ASSESSED**

**39.4**

Distance to fire  
station (km)

**0.4**

Shelters per 100k  
persons

**37.4%**

Radiobase  
access



## RESILIENCE (R)

**RANK: 24 / 24 PROVINCES**

**SCORE: 0.368**

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

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



**Economic Constraints**



**Vulnerable Health Status**



**Governance**



**Communications Capacity**



## HAZARD-SPECIFIC RISK (HSR)



**Earthquake**

**RANK: 3 / 24 PROVINCES ASSESSED**

**SCORE: 0.531**



**Wildfire**

**RANK: 2 / 24 PROVINCES ASSESSED**

**SCORE: 0.493**



**Volcano**

**RANK: 3 / 24 PROVINCES ASSESSED**

**SCORE: 0.098**



**Flood**

**RANK: 12 / 24 PROVINCES ASSESSED**

**SCORE: 0.213**



**Landslide**

**RANK: 11 / 24 PROVINCES ASSESSED**

**SCORE: 0.228**



**Drought**

**RANK: 14 / 24 PROVINCES ASSESSED**

**SCORE: 0.219**



**Extreme Temperature**

**RANK: 14 / 24 PROVINCES ASSESSED**

**SCORE: 0**





## MULTI-HAZARD RISK (MHR)

**6 / 24**

RANK WITHIN PROVINCES  
Score: 0.585

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

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



#### Multi-Hazard Exposure



DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



# SALTA RECOMMENDATIONS

1

## Economic Constraints

Findings show that Salta Province has the highest overall Economic Constraints in Argentina, characterized by the country's highest economic dependency ratio (58.3) combined with the 3rd highest unemployment rate (7.6%) and 5th highest poverty rate (38%).

Support new business opportunities to diversify livelihoods and generate prospects for equitable distribution of property and economic assets in the Province.

Consider long-term economic plans that both promote social benefits for elderly, low income, and single-parent households, and allocate the revenue required to balance the costs of these benefits.

2

## Vulnerable Health Status

Findings show that Salta Province has the 2nd highest overall Vulnerable Health Status in Argentina. The Province is among Argentina's highest in infectious disease incidence, combined with the 3rd highest rate of disability in the country. Salta ranks 4th highest in both infant and maternal mortality.

Make provisions for the special needs of disabled persons during disasters, including evacuation, shelter, and medical care.

Continue active health surveillance to prevent the spread of disease and increase availability of skilled health care. Focus on attracting additional resources to support maternal and infant health care in rural and vulnerable regions of the Province.



## SALTA RECOMMENDATIONS

### 3

#### Governance

Salta Province had the 3rd lowest voter participation rate during the 2019 election (76%). Focus on building civic participation at the community to increase public voice and accountability, building trust in government.

Salta has the highest crime prevalence in Argentina. Focus on strengthening support for public security through increased law enforcement and surveillance, youth education and personal safety programs, and community support programs for ex-criminals.

### 4

#### Communications Capacity

Salta Province ranks 16th in overall Communication Capacity. Pursue public-private partnerships to increase availability and affordability of internet and television communications.

While investing to diversify access to communication technology, officials should broadcast critical information and disaster warnings primarily via alternate media (such as radio) to keep the population informed and ensure that appropriate actions are taken. Salta Province has increased risk to earthquake, wildfire, landslide, flood and drought.

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**ARGENTINA**

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**SAN JUAN**

---

**NDPBA PROVINCE PROFILE**

# ARGENTINA

## SAN JUAN

### CAPITAL: SAN JUAN

Area: 88,290 km<sup>2</sup>

San Juan Province is located in the Cuyo region of Argentina. This Province is divided into 19 Provinces, the Capital being San Juan. The Province borders Chile and the Provinces of La Rioja, San Luis and Mendoza. The main economic sources are agriculture, wine, food processing and mining.



## RISK AND VULNERABILITY

### COMPONENT SCORE



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

Score: 0.55 • Rank: 10/24



#### RESILIENCE (R) - Low

Score: 0.427 • Rank: 19/24



#### MULTI-HAZARD EXPOSURE (MHE) - Moderate

Score: 0.504 • Rank: 11/24



#### VULNERABILITY (V) - Very High

Score: 0.587 • Rank: 4/24



#### COPING CAPACITY (CC) - Low

Score: 0.442 • Rank: 16/24



Population (2018)

**764,464**



Population in Poverty

**33.1%**



Illiterate population

**2.1%**



Access to improved water

**93.2%**



Average life expectancy

**75.2 years**

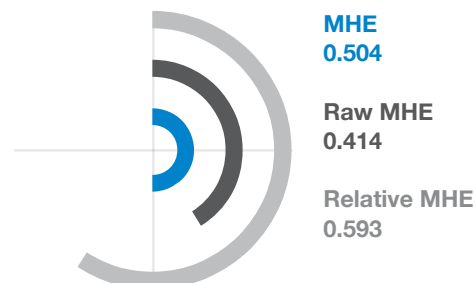
\*For more information on data and components please visit: <https://bit.ly/2LqVoUO>



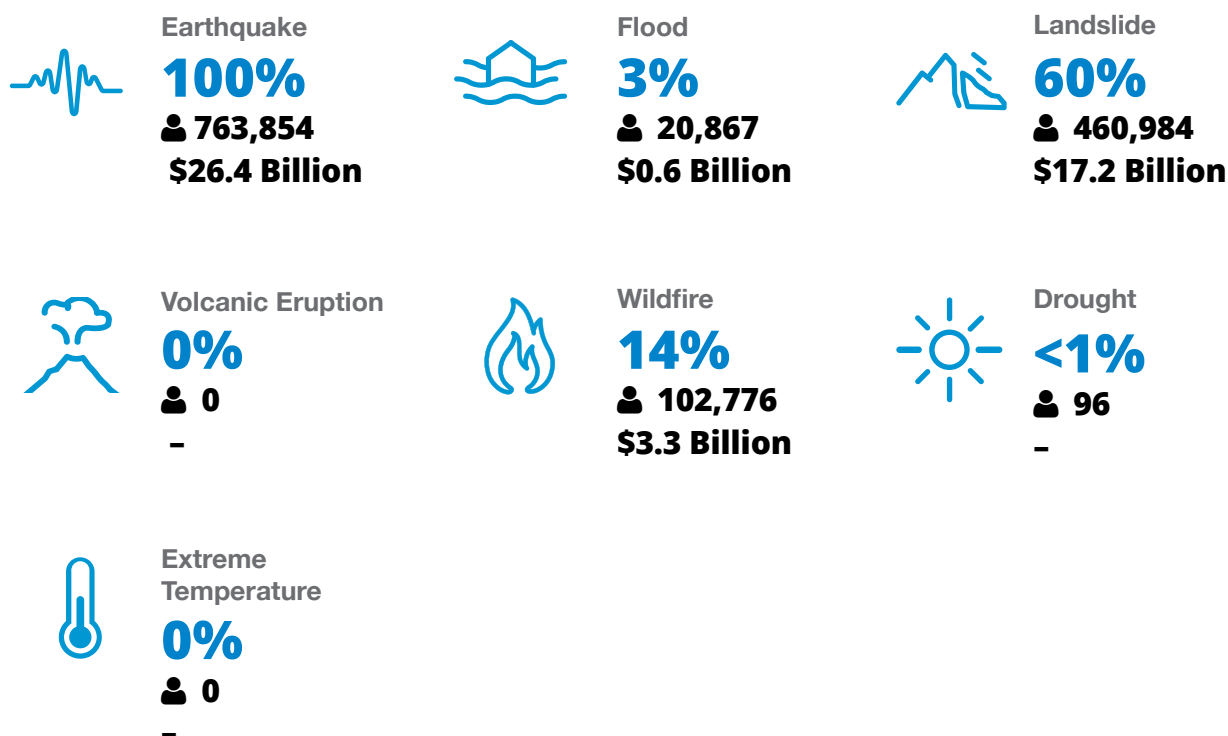
## MULTI-HAZARD EXPOSURE (MHE)

RANK: 11 / 24 PROVINCES

SCORE: 0.504



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







## VULNERABILITY (V)

**RANK: 4 / 24 PROVINCES ASSESSED**  
**SCORE: 0.587**

Vulnerability in San Juan is primarily driven by Gender Inequality and Economic Constraints. The bar chart indicates the socioeconomic themes contributing to the province's overall Vulnerability score.



### Environmental Stress

**SCORE: 0.501 RANK: 14/24 PROVINCES ASSESSED**

**3.1%** **134.1**  
Land degradation Land affected by wildfire (per 100k ha)



### Vulnerable Health Status

**SCORE: 0.365 RANK: 13/24 PROVINCES ASSESSED**

**75.2** **8.1** **2.9** **15.4%** **12.7** **6.5**  
Life expectancy (years) Infant mortality rate (per 1,000 live births) Maternal mortality ratio Disability HIV incidence Tuberculosis incidence



### Clean Water Vulnerability

**SCORE: 0.547 RANK: 7/24 PROVINCES ASSESSED**

**6.8%** **70.5%**  
Households without piped water Households without sewage services



### Information Access Vulnerability

**SCORE: 0.56 RANK: 9/24 PROVINCES ASSESSED**

**2.1%** **73.1%** **87.2%** **3.36**  
Illiteracy Rate (Age 10+) Secondary education completion rate School enrollment Education investment per capita (million pesos)



### Economic Constraints

**SCORE: 0.793 RANK: 2/24 PROVINCES ASSESSED**

**57** **7.8%** **33.1%**  
Economic dependency ratio Unemployment rate Poverty rate



### Gender Inequality

**SCORE: 0.835 RANK: 3/24 PROVINCES ASSESSED**

**2.07** **33.7**  
Female to male unemployment Female judiciary seats



### Population Pressures

**SCORE: 0.51 RANK: 12/24 PROVINCES ASSESSED**

**1.2%**  
Average Annual population change



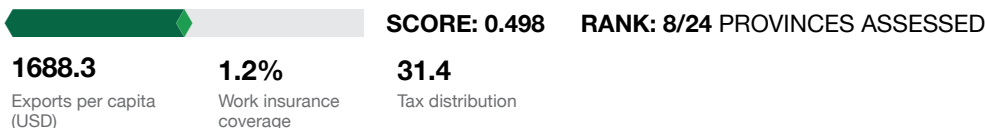
## COPING CAPACITY (CC)

**RANK: 16 / 24 PROVINCES ASSESSED**  
**SCORE: 0.442**

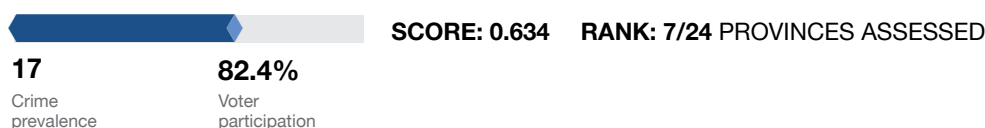
San Juan exhibits weaker Coping Capacity in the areas of Communications Capacity and Transportation Capacity. The bar chart indicates the socioeconomic themes contributing to the province's overall Coping Capacity score.



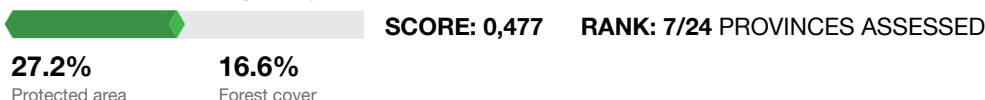
### Economic Capacity



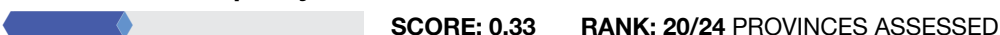
### Governance



### Environmental Capacity



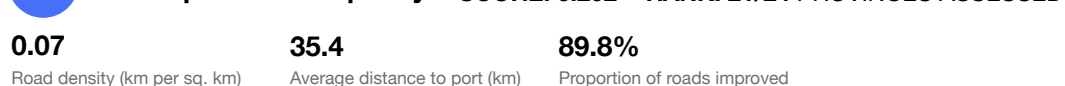
### Infrastructure Capacity



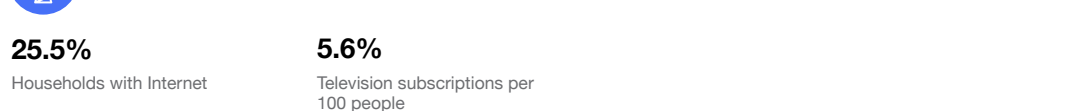
### Health Care Capacity



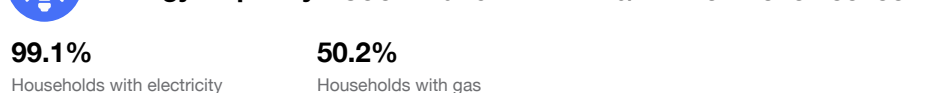
### Transportation Capacity



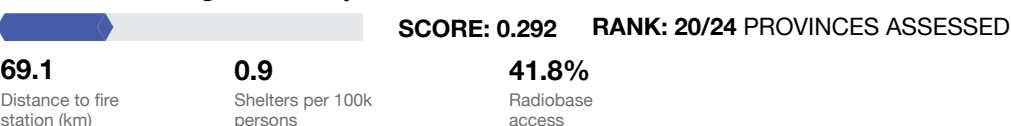
### Communications Capacity



### Energy Capacity



### Disaster Management Capabilities





## RESILIENCE (R)

**RANK: 19 / 24 PROVINCES**

**SCORE: 0.427**

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

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



**Gender  
Inequality**



**Economic  
Constraints**



**Communications  
Capacity**



**Transportation  
Capacity**



## HAZARD-SPECIFIC RISK (HSR)



**Earthquake**

**RANK: 1 / 24 PROVINCES ASSESSED**

**SCORE: 0.552**



**Wildfire**

**RANK: 17 / 24 PROVINCES ASSESSED**

**SCORE: 0.205**



**Volcano**

**RANK: 9 / 24 PROVINCES ASSESSED**

**SCORE: 0.000**



**Flood**

**RANK: 18 / 24 PROVINCES ASSESSED**

**SCORE: 0.098**



**Landslide**

**RANK: 1 / 24 PROVINCES ASSESSED**

**SCORE: 0.480**



**Drought**

**RANK: 19 / 24 PROVINCES ASSESSED**

**SCORE: 0.053**



**Extreme Temperature**

**RANK: 14 / 24 PROVINCES ASSESSED**

**SCORE: 0**





## MULTI-HAZARD RISK (MHR)

**10 / 24**

RANK WITHIN PROVINCES  
Score: 0.55

San Juan's score and ranking are due to Moderate Multi-hazard exposure combined with Very High Vulnerability and Low Coping Capacity scores.

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



#### Multi-Hazard Exposure



DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



## SAN JUAN RECOMMENDATIONS

### 1

#### Gender Inequality

---

Focus efforts to support equal labor participation by diversifying economic opportunities for women in the Province.

Promote social benefit programs that support single parents with children.

Encourage women to participate in the disaster management planning and decision-making process through inclusion community emergency brigades and representation in local government.

### 2

#### Economic Constraints

---

Findings show that San Juan Province has the 2nd highest overall Economic Constraints in Argentina, characterized by the country's 2nd highest unemployment rate (7.8%) combined with the 4th highest economic dependency ratio (57).

Support new business opportunities to diversify livelihoods and generate prospects for equitable distribution of property and economic assets in the Province.

Consider long-term economic plans that both promote social benefits for elderly, low income, and single-parent households, and allocate the revenue required to balance the costs of these benefits.

## SAN JUAN RECOMMENDATIONS

### 3

#### Communications Capacity

Findings show that San Juan Province ranks lowest in the country in overall Communication Capacity. Just 26% of households have access to the internet – 3rd lowest in the country, and 5.6 television subscriptions per 100 people. Pursue public-private partnerships to increase availability and affordability of internet and television communications.

While investing to diversify access to communication technology, officials should broadcast critical information and disaster warnings primarily via alternate media (such as radio) to keep the population informed and ensure that appropriate actions are taken. San Juan Province is exposed to earthquake, landslide, wildfire, and flood hazards.

### 4

#### Transportation Capacity

Findings show that San Juan Province ranks 21st in Overall Transportation Capacity. Low road network density combined with large average distances to the nearest airport may reduce the connectivity of people, goods, and services to the Province during a disaster.

Invest in transportation infrastructure to facilitate the distribution of resources and services before, during, and after a disaster.

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**ARGENTINA**

**SAN LUIS**

**NDPBA PROVINCE PROFILE**

# ARGENTINA

## SAN LUIS

### CAPITAL: SAN LUIS

Area: 75,844 km<sup>2</sup>

San Luis Province is located in the Cuyo region of Argentina. This Province is divided into 9 Provinces, the Capital being San Luis. The Province borders the Provinces of Córdoba, La Pampa, Mendoza, San Juan and La Rioja. The main economic sources are agriculture, livestock, industrial production and tourism.



## RISK AND VULNERABILITY

### COMPONENT SCORE



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

Score: 0.509 • Rank: 14/24



#### **RESILIENCE (R) - High**

Score: 0.515 • Rank: 6/24



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

Score: 0.556 • Rank: 9/24



#### **VULNERABILITY (V) - Moderate**

Score: 0.512 • Rank: 14/24



#### **COPING CAPACITY (CC) - Very High**

Score: 0.543 • Rank: 4/24



Population (2018)

**495,629**



Population in Poverty

**31.3%**



Illiterate population

**1.8%**



Access to improved water

**94.5%**



Average life expectancy

**76.1 years**

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



## MULTI-HAZARD EXPOSURE (MHE)

RANK: 9 / 24 PROVINCES

SCORE: 0.556



MHE  
0.556

Raw MHE  
0.348

Relative MHE  
0.764

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



Earthquake

**6%**

👤 30,053

\$0.8 Billion



Flood

**3%**

👤 16,041

\$0.5 Billion



Landslide

**18%**

👤 88,710

\$3.2 Billion



Volcanic Eruption

**0%**

👤 0

–



Wildfire

**53%**

👤 261,665

\$8.9 Billion



Drought

**98%**

👤 483,491

\$15.9 Billion



Extreme  
Temperature

**48%**

👤 235,941

\$7.5 Billion





## VULNERABILITY (V)

**RANK: 14 / 24 PROVINCES ASSESSED**  
**SCORE: 0.512**

Vulnerability in San Luis is primarily driven by Gender Inequality and Economic Constraints. The bar chart indicates the socioeconomic themes contributing to the province's overall Vulnerability score.



### Environmental Stress



**SCORE: 0.507 RANK: 13/24 PROVINCES ASSESSED**

**9.2%**

Land  
degradation

**0.5**

Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status



**SCORE: 0.389 RANK: 11/24 PROVINCES ASSESSED**

**76.1**

Life expectancy  
(years)

**9.7**

Infant mortality  
rate (per 1,000  
live births)

**6.7**

Maternal  
mortality ratio

**13.2%**

Disability

**16.2**

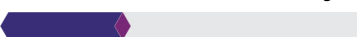
HIV  
incidence

**6.7**

Tuberculosis  
incidence



### Clean Water Vulnerability



**SCORE: 0.331 RANK: 18/24 PROVINCES ASSESSED**

**5.5%**

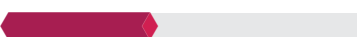
Households  
without piped  
water

**39.8%**

Households  
without sewage  
services



### Information Access Vulnerability



**SCORE: 0.411 RANK: 19/24 PROVINCES ASSESSED**

**1.8%**

Illiteracy Rate  
(Age 10+)

**82.5%**

Secondary  
education  
completion rate

**88.6%**

School  
enrollment

**3.18**

Education investment per  
capita (million pesos)



### Economic Constraints



**SCORE: 0.592 RANK: 8/24 PROVINCES ASSESSED**

**53.7**

Economic  
dependency  
ratio

**7.2%**

Unemployment  
rate

**31.3%**

Poverty rate



### Gender Inequality



**SCORE: 0.778 RANK: 6/24 PROVINCES ASSESSED**

**2.21**

Female to male  
unemployment

**45.3**

Female judiciary  
seats



### Population Pressures



**SCORE: 0.579 RANK: 8/24 PROVINCES ASSESSED**

**1.4%**

Average Annual  
population  
change





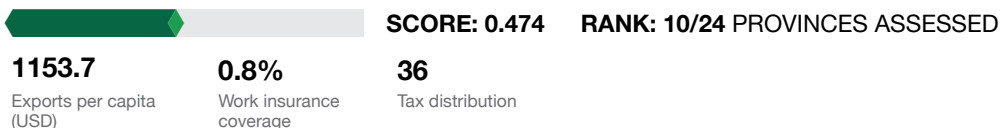
## COPING CAPACITY (CC)

**RANK: 4 / 24 PROVINCES ASSESSED**  
**SCORE: 0.543**

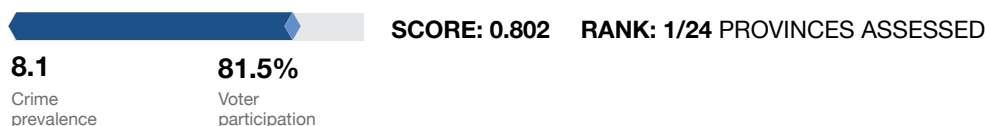
San Luis exhibits weaker Coping Capacity in the areas of Health Care Capacity and Communications Capacity. The bar chart indicates the socioeconomic themes contributing to the province's overall Coping Capacity score.



### Economic Capacity



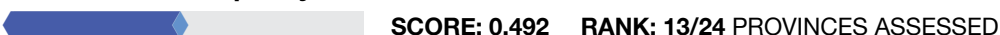
### Governance



### Environmental Capacity



### Infrastructure Capacity



### Health Care Capacity SCORE: 0.351 RANK: 19/24 PROVINCES ASSESSED



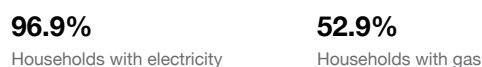
### Transportation Capacity SCORE: 0.611 RANK: 11/24 PROVINCES ASSESSED



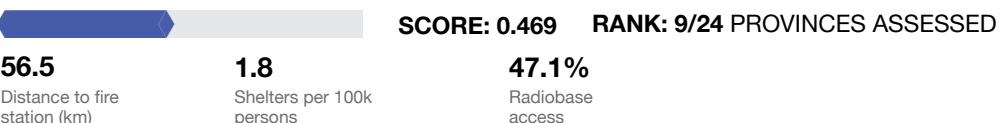
### Communications Capacity SCORE: 0.383 RANK: 11/24 PROVINCES ASSESSED



### Energy Capacity SCORE: 0.622 RANK: 13/24 PROVINCES ASSESSED



### Disaster Management Capabilities





## RESILIENCE (R)

RANK: 6 / 24 PROVINCES

SCORE: 0.515

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

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



Gender  
Inequality



Economic  
Constraints



Health Care  
Capacity



Communications  
Capacity



## HAZARD-SPECIFIC RISK (HSR)



Earthquake

RANK: 7 / 24 PROVINCES ASSESSED

SCORE: 0.174



Wildfire

RANK: 6 / 24 PROVINCES ASSESSED

SCORE: 0.368



Volcano

RANK: 9 / 24 PROVINCES ASSESSED

SCORE: 0.000



Flood

RANK: 20 / 24 PROVINCES ASSESSED

SCORE: 0.080



Landslide

RANK: 16 / 24 PROVINCES ASSESSED

SCORE: 0.152



Drought

RANK: 10 / 24 PROVINCES ASSESSED

SCORE: 0.420



Extreme Temperature

RANK: 11 / 24 PROVINCES ASSESSED

SCORE: 0.285



## MULTI-HAZARD RISK (MHR)

**14 / 24**

RANK WITHIN PROVINCES  
Score: 0.509

San Luis's score and ranking are due to High Multi-hazard exposure combined with Moderate Vulnerability and Very High Coping Capacity scores.

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



#### Multi-Hazard Exposure



DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



## SAN LUIS RECOMMENDATIONS

### 1

#### Gender Inequality

---

Focus efforts to support equal labor participation by diversifying economic opportunities for women in the Province.

Promote social benefit programs that support single parents with children.

Encourage women to participate in the disaster management planning and decision-making process through inclusion community emergency brigades and representation in local government.

### 2

#### Economic Constraints

---

Findings show that San Luis Province has the 4th highest unemployment rate (7.2%) in Argentina. Support new business opportunities to diversify livelihoods and generate prospects for equitable distribution of property and economic assets in the Province.

## SAN LUIS RECOMMENDATIONS

### 3

#### Health Care Capacity

Findings show that San Luis Province ranks 19th in overall Health Care Capacity. Reduce disparities in access to hospitals and medical services by ensuring equitable distribution of clinics and health services in rural and vulnerable communities.

### 4

#### Communications Capacity

San Luis Province ranks 11th in overall Communication Capacity. Pursue public-private partnerships to increase availability and affordability of internet and television communications.

While investing to diversify access to communication technology, officials should broadcast critical information and disaster warnings primarily via alternate media (such as radio) to keep the population informed and ensure that appropriate actions are taken. San Luis Province is exposed to drought, wildfire, extreme temperature, earthquake, landslide, and flood hazards.

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**ARGENTINA**

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**SANTA CRUZ**

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**NDPBA PROVINCE PROFILE**

# ARGENTINA

## SANTA CRUZ

**CAPITAL: RÍO GALLEGOS**

Area: 243,943 km<sup>2</sup>

Santa Cruz Province is located in the Patagonia region of Argentina. This Province is divided into 7 Provinces, the Capital being Santa Cruz. The Province borders Chile and the Province of Chubut. The main economic sources are petroleum, gas, mining and livestock.



### RISK AND VULNERABILITY

#### COMPONENT SCORE



**MULTI-HAZARD RISK (MHR) - Very Low**

Score: 0.35 • Rank: 24/24



**RESILIENCE (R) - Moderate**

Score: 0.494 • Rank: 11/24



**MULTI-HAZARD EXPOSURE (MHE) - Very Low**

Score: 0.037 • Rank: 24/24



**VULNERABILITY (V) - Low**

Score: 0.466 • Rank: 18/24



**COPING CAPACITY (CC) - Moderate**

Score: 0.455 • Rank: 14/24



Population (2018)

**347,593**



Population in Poverty

**18.6%**



Illiterate population

**1.1%**



Access to improved water

**97.2%**



Average life expectancy

**75.3 years**

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

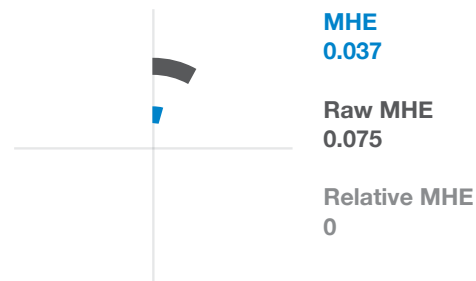




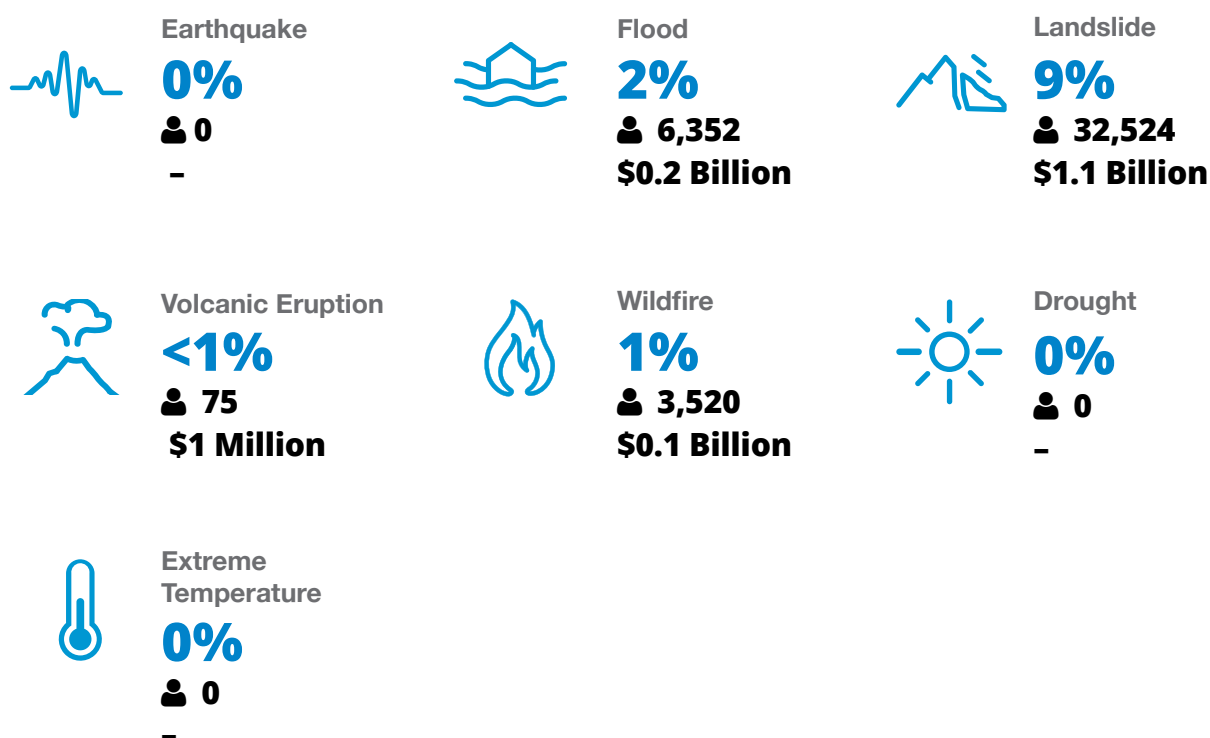
## MULTI-HAZARD EXPOSURE (MHE)

RANK: 24 / 24 PROVINCES

SCORE: 0.037



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





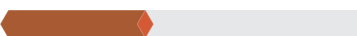
## VULNERABILITY (V)

**RANK: 18 / 24 PROVINCES ASSESSED**  
**SCORE: 0.466**

Vulnerability in Santa Cruz is primarily driven by Population Pressures and Gender Inequality. The bar chart indicates the socioeconomic themes contributing to the province's overall Vulnerability score.



### Environmental Stress



**SCORE: 0.397 RANK: 21/24 PROVINCES ASSESSED**

**4.3%**

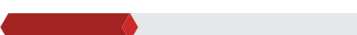
Land  
degradation

**1.2**

Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status



**SCORE: 0.353 RANK: 14/24 PROVINCES ASSESSED**

**75.3**

Life expectancy  
(years)

**9.2**

Infant mortality  
rate (per 1,000  
live births)

**3.3**

Maternal  
mortality ratio

**11.7%**

Disability

**18.5**

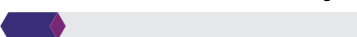
HIV  
incidence

**15.7**

Tuberculosis  
incidence



### Clean Water Vulnerability



**SCORE: 0.143 RANK: 23/24 PROVINCES ASSESSED**

**2.8%**

Households  
without piped  
water

**17.6%**

Households  
without sewage  
services



### Information Access Vulnerability



**SCORE: 0.523 RANK: 14/24 PROVINCES ASSESSED**

**1.1%**

Illiteracy Rate  
(Age 10+)

**71.8%**

Secondary  
education  
completion rate

**94.0%**

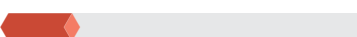
School  
enrollment

**2.38**

Education investment per  
capita (million pesos)



### Economic Constraints



**SCORE: 0.184 RANK: 24/24 PROVINCES ASSESSED**

**50.7**

Economic  
dependency  
ratio

**5.3%**

Unemployment  
rate

**18.6%**

Poverty rate



### Gender Inequality



**SCORE: 0.661 RANK: 9/24 PROVINCES ASSESSED**

**1.89**

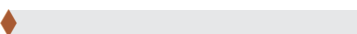
Female to male  
unemployment

**37.3**

Female judiciary  
seats



### Population Pressures



**SCORE: 1 RANK: 1/24 PROVINCES ASSESSED**

**3.2%**

Average Annual  
population  
change



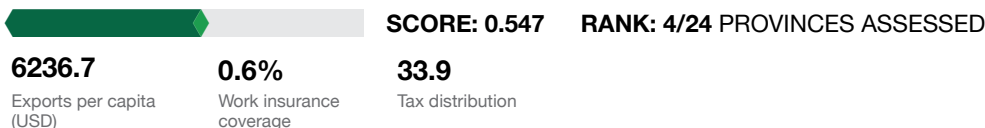
## COPING CAPACITY (CC)

**RANK: 14 / 24 PROVINCES ASSESSED**  
**SCORE: 0.455**

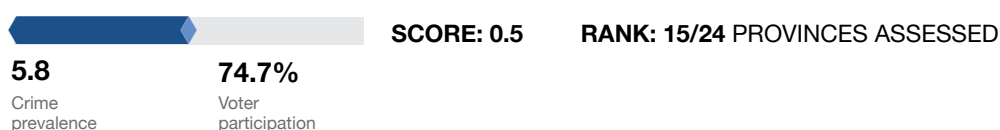
Santa Cruz exhibits weaker Coping Capacity in the areas of Transportation Capacity and Disaster Management Capabilities. The bar chart indicates the socioeconomic themes contributing to the province's overall Coping Capacity score.



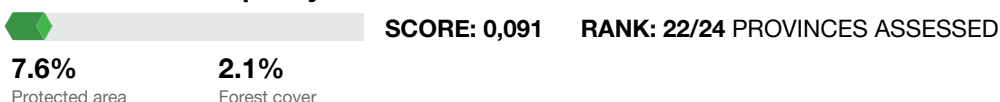
### Economic Capacity



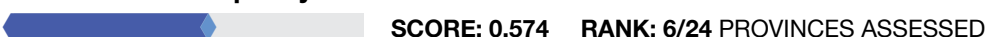
### Governance



### Environmental Capacity



### Infrastructure Capacity



### Health Care Capacity SCORE: 0.475 RANK: 11/24 PROVINCES ASSESSED



### Transportation Capacity SCORE: 0.359 RANK: 17/24 PROVINCES ASSESSED



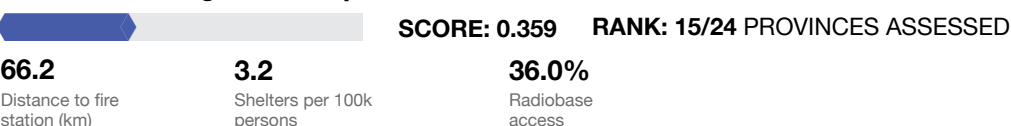
### Communications Capacity SCORE: 0.553 RANK: 5/24 PROVINCES ASSESSED



### Energy Capacity SCORE: 0.907 RANK: 2/24 PROVINCES ASSESSED



### Disaster Management Capabilities





## RESILIENCE (R)

RANK: 11 / 24 PROVINCES

SCORE: 0.494

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

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



Population Pressures



Gender Inequality



Transportation Capacity



Disaster Management Capabilities



## HAZARD-SPECIFIC RISK (HSR)



Earthquake

RANK: 13 / 24 PROVINCES ASSESSED

SCORE: 0.000



Wildfire

RANK: 24 / 24 PROVINCES ASSESSED

SCORE: 0.000



Volcano

RANK: 7 / 24 PROVINCES ASSESSED

SCORE: 0.047



Flood

RANK: 22 / 24 PROVINCES ASSESSED

SCORE: 0.028



Landslide

RANK: 19 / 24 PROVINCES ASSESSED

SCORE: 0.071



Drought

RANK: 22 / 24 PROVINCES ASSESSED

SCORE: 0.000



Extreme Temperature

RANK: 14 / 24 PROVINCES ASSESSED

SCORE: 0



## MULTI-HAZARD RISK (MHR)

**24 / 24**

RANK WITHIN PROVINCES  
Score: 0.35

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

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



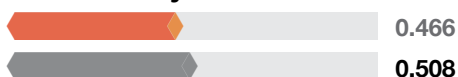
#### Multi-Hazard Exposure



DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



## SANTA CRUZ RECOMMENDATIONS

### 1

#### Population Pressures

---

Santa Cruz Province experienced the largest average annual population increase between 2010 and 2019 (3.2%). As population growth steadily increases, closely monitor development to prevent environmental stress and ensure that resource and infrastructure needs are met.

Incorporate multi-hazard mapping and risk assessment into land-use plans and zoning regulations to reduce and prevent development in hazard-prone areas of the Province.

### 2

#### Gender Inequality

---

Focus efforts to support equal labor participation by diversifying economic opportunities for women in the Province.

Promote social benefit programs that support single parents with children.

Encourage women to participate in the disaster management planning and decision-making process through inclusion community emergency brigades and representation in local government.

# SANTA CRUZ RECOMMENDATIONS

3

## Transportation Capacity

Low road network density may reduce the connectivity of people, goods, and services to the Santa Cruz Province during a disaster.

Invest in transportation infrastructure to facilitate the distribution of resources and services before, during, and after a disaster.

4

## Disaster Management Capabilities

Pursue public-private partnerships to increase radiobase access to increase availability, security, and resilience of disaster communications.

Focus on building community and volunteer fire and emergency response corps. Identify government or external resources to conduct emergency services training and conduct Province-level exercise on a regular basis.

**Better solutions.  
Fewer disasters.**

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# ARGENTINA

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# SANTA FE

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## NDPBA PROVINCE PROFILE

# ARGENTINA

## SANTA FE

### CAPITAL: SANTA FE

Area: 133,097 km<sup>2</sup>

Santa Fe Province is located in the Central region of Argentina. This Province is divided into 19 Provinces, the Capital being Santa Fe. The Province borders the Provinces of Entre Ríos, Corrientes, Chaco, Santiago del Estero, Córdoba and Buenos Aires. The main economic sources are agriculture, livestock, ports (exportation) and manufacturing.



## RISK AND VULNERABILITY

### COMPONENT SCORE



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

Score: 0.592 • Rank: 5/24



#### RESILIENCE (R) - Moderate

Score: 0.49 • Rank: 12/24



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

Score: 0.757 • Rank: 4/24



#### VULNERABILITY (V) - Moderate

Score: 0.541 • Rank: 12/24



#### COPING CAPACITY (CC) - High

Score: 0.52 • Rank: 6/24



Population (2018)

**3,481,514**



Population in Poverty

**34.4%**



Illiterate population

**1.8%**



Access to improved water

**84.4%**



Average life expectancy

**75.1 years**

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



## MULTI-HAZARD EXPOSURE (MHE)

RANK: 4 / 24 PROVINCES

SCORE: 0.757

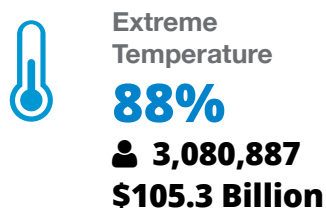
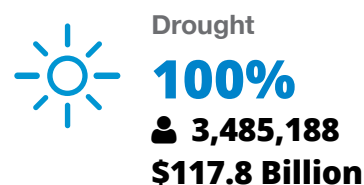
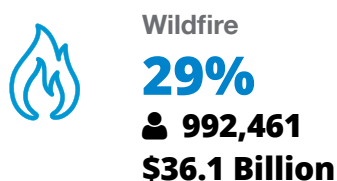
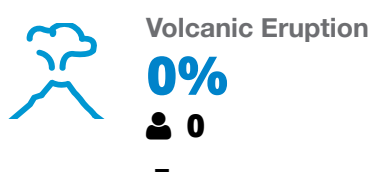
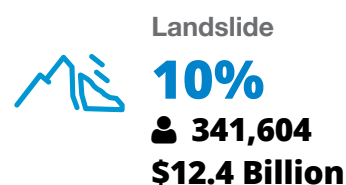
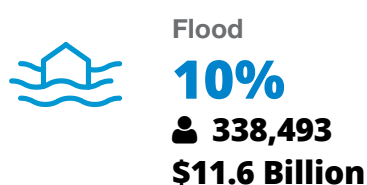
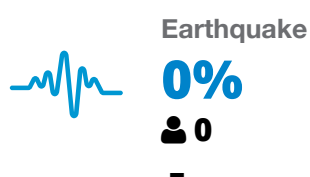


MHE  
0.757

Raw MHE  
0.706

Relative MHE  
0.808

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





## VULNERABILITY (V)

**RANK: 12 / 24 PROVINCES ASSESSED**  
**SCORE: 0.541**

Vulnerability in Santa Fe is primarily driven by Gender Inequality and Environmental Stress. The bar chart indicates the socioeconomic themes contributing to the province's overall Vulnerability score.



### Environmental Stress



**SCORE: 0.674 RANK: 6/24 PROVINCES ASSESSED**

**12.9%**

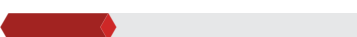
Land  
degradation

**9.8**

Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status



**SCORE: 0.29 RANK: 17/24 PROVINCES ASSESSED**

**75.1**

Life expectancy  
(years)

**8.2**

Infant mortality  
rate (per 1,000  
live births)

**1.6**

Maternal  
mortality ratio

**12.8%**

Disability

**6**

HIV  
incidence

**16.6**

Tuberculosis  
incidence



### Clean Water Vulnerability



**SCORE: 0.575 RANK: 6/24 PROVINCES ASSESSED**

**15.6%**

Households  
without piped  
water

**49.7%**

Households  
without sewage  
services



### Information Access Vulnerability



**SCORE: 0.6 RANK: 5/24 PROVINCES ASSESSED**

**1.8%**

Illiteracy Rate  
(Age 10+)

**78.8%**

Secondary  
education  
completion rate

**86.3%**

School  
enrollment

**2.02**

Education investment per  
capita (million pesos)



### Economic Constraints



**SCORE: 0.523 RANK: 14/24 PROVINCES ASSESSED**

**54.4**

Economic  
dependency  
ratio

**5.9%**

Unemployment  
rate

**34.4%**

Poverty rate



### Gender Inequality



**SCORE: 0.74 RANK: 7/24 PROVINCES ASSESSED**

**2.02**

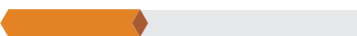
Female to male  
unemployment

**40.1**

Female judiciary  
seats



### Population Pressures



**SCORE: 0.382 RANK: 23/24 PROVINCES ASSESSED**

**0.8%**

Average Annual  
population  
change



## COPING CAPACITY (CC)

**RANK: 6 / 24 PROVINCES ASSESSED**  
**SCORE: 0.52**

Santa Fe exhibits weaker Coping Capacity in the areas of Governance and Disaster Management Capabilities. The bar chart indicates the socioeconomic themes contributing to the province's overall Coping Capacity score.



### Economic Capacity



**SCORE: 0.636** **RANK: 1/24 PROVINCES ASSESSED**

**4037.8**

Exports per capita  
(USD)

**9.6%**

Work insurance  
coverage

**20.3**

Tax distribution



### Governance



**SCORE: 0.442** **RANK: 20/24 PROVINCES ASSESSED**

**18.5**

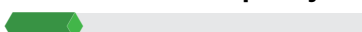
Crime  
prevalence

**79.5%**

Voter  
participation



### Environmental Capacity



**SCORE: 0.180** **RANK: 20/24 PROVINCES ASSESSED**

**6.8%**

Protected area

**13.9%**

Forest cover



### Infrastructure Capacity



**SCORE: 0.639** **RANK: 4/24 PROVINCES ASSESSED**



### Health Care Capacity

**SCORE: 0.655** **RANK: 4/24 PROVINCES ASSESSED**

**33.5**

Hospital beds per  
10,000 people

**44.5**

Physicians per  
10,000 people

**68.3%**

Health insurance  
coverage

**11.4**

Average distance to nearest  
hospital (km<sup>2</sup>)



### Transportation Capacity

**SCORE: 0.689** **RANK: 4/24 PROVINCES ASSESSED**

**0.32**

Road density (km per sq. km)

**15.8**

Average distance to port (km)

**97.6%**

Proportion of roads improved



### Communications Capacity

**SCORE: 0.542** **RANK: 6/24 PROVINCES ASSESSED**

**46.1%**

Households with Internet

**17.2%**

Television subscriptions per  
100 people



### Energy Capacity

**SCORE: 0.67** **RANK: 11/24 PROVINCES ASSESSED**

**98.3%**

Households with electricity

**46.1%**

Households with gas



### Disaster Management Capabilities



**SCORE: 0.514** **RANK: 7/24 PROVINCES ASSESSED**

**21.4**

Distance to fire  
station (km)

**0.5**

Shelters per 100k  
persons

**49.7%**

Radiobase  
access



## RESILIENCE (R)

RANK: 12 / 24 PROVINCES

SCORE: 0.49

Santa Fe's score and ranking are due to Moderate Vulnerability combined with High Coping Capacity scores.

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



Gender  
Inequality



Environmental  
Stress



Governance



Disaster  
Management  
Capabilities



## HAZARD-SPECIFIC RISK (HSR)



Earthquake

RANK: 13 / 24 PROVINCES ASSESSED

SCORE: 0.000



Wildfire

RANK: 8 / 24 PROVINCES ASSESSED

SCORE: 0.341



Volcano

RANK: 9 / 24 PROVINCES ASSESSED

SCORE: 0.000



Flood

RANK: 7 / 24 PROVINCES ASSESSED

SCORE: 0.301



Landslide

RANK: 13 / 24 PROVINCES ASSESSED

SCORE: 0.191



Drought

RANK: 8 / 24 PROVINCES ASSESSED

SCORE: 0.482



Extreme Temperature

RANK: 4 / 24 PROVINCES ASSESSED

SCORE: 0.452



## MULTI-HAZARD RISK (MHR)

**5 / 24**

RANK WITHIN PROVINCES  
Score: 0.592

Santa Fe's score and ranking are due to Very High Multi-hazard exposure combined with Moderate Vulnerability and High Coping Capacity scores.

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



#### Multi-Hazard Exposure



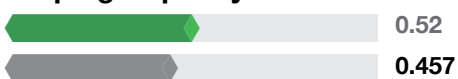
DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



## SANTA FE RECOMMENDATIONS

### 1

#### Gender Inequality

---

Focus efforts to support equal labor participation by diversifying economic opportunities for women in the Province.

Promote social benefit programs that support single parents with children.

Encourage women to participate in the disaster management planning and decision-making process through inclusion community emergency brigades and representation in local government.

### 2

#### Environmental Stress

---

Focus on protecting environmental resources from degradation, and deforestation. These environmental stresses increase the likelihood of hazard events and have wider implications for negative impacts on health and livelihoods, decreasing resilience.



## SANTA FE RECOMMENDATIONS

### 3

#### Governance

Focus on strengthening support for public security through increased law enforcement and surveillance, youth education and personal safety programs, and community support programs for ex-criminals.

Build civic participation at the community to increase public voice and accountability, building trust in government.

### 4

#### Disaster Management Capabilities

A massive volume of water flows through Santa Fe Province as it makes its way to the coast. Constant drainage causes recurring episodes of extreme flooding in the Province. Protección Civil in Santa Fe takes an active role in preparedness and mitigation, utilizing funds to successfully invest in flood mitigation infrastructure.

Encourage Secretaría de Protección Civil de la Provincia de Santa Fe to work with disaster managers in Provinces across to country, sharing best practices to identify and mitigate hazards.

**Better solutions.  
Fewer disasters.**

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**ARGENTINA**

# **SANTIAGO DEL ESTERO**

**NDPBA PROVINCE PROFILE**

# ARGENTINA

## SANTIAGO DEL ESTERO

### CAPITAL: SANTIAGO DEL ESTERO

Area: 136,911 km<sup>2</sup>

Santiago del Estero Province is located in the Noroeste Argentino (NOA) region of Argentina. This Province is divided into 27 Provinces, the Capital being Santiago del Estero. The Province borders the Provinces of Santa Fe, Chaco, Salta, Tucumán, Catamarca and Córdoba. The main economic sources are agriculture, livestock, lumber, some mining and tourism.



### RISK AND VULNERABILITY COMPONENT SCORE



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

Score: 0.607 • Rank: 3/24



#### RESILIENCE (R) - Very Low

Score: 0.407 • Rank: 21/24



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

Score: 0.635 • Rank: 6/24



#### VULNERABILITY (V) - High

Score: 0.555 • Rank: 9/24



#### COPING CAPACITY (CC) - Very Low

Score: 0.369 • Rank: 21/24



Population (2018)

**958,251**



Population in Poverty

**38.9%**



Illiterate population

**4.0%**



Access to improved water

**75.8%**



Average life expectancy

**74.3 years**

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



## MULTI-HAZARD EXPOSURE (MHE)

RANK: 6 / 24 PROVINCES

SCORE: 0.635

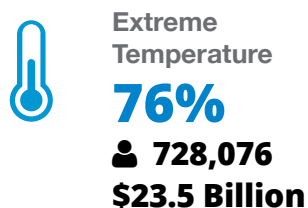
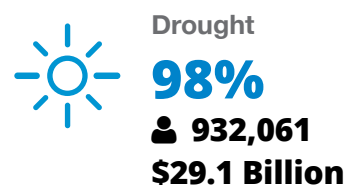
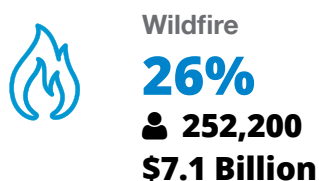
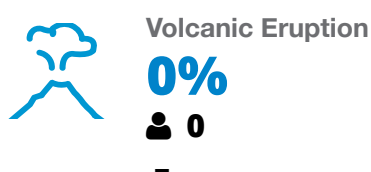
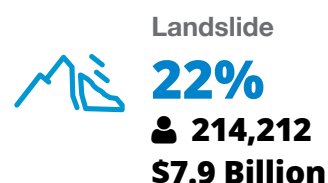
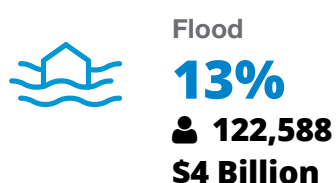
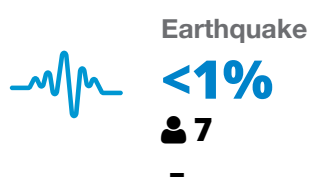


MHE  
0.635

Raw MHE  
0.464

Relative MHE  
0.806

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





## VULNERABILITY (V)

**RANK: 9 / 24 PROVINCES ASSESSED**  
**SCORE: 0.555**

Vulnerability in Santiago del Estero is primarily driven by Clean Water Access Vulnerability and Economic Constraints. The bar chart indicates the socioeconomic themes contributing to the province's overall Vulnerability score.



### Environmental Stress

**SCORE: 0.37** **RANK: 22/24 PROVINCES ASSESSED**

**2.4%** **13.1**  
Land  
degradation Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status

**SCORE: 0.475** **RANK: 7/24 PROVINCES ASSESSED**

**74.3** **10.7** **2.9** **16.2%** **3.9** **9.5**  
Life expectancy Infant mortality Maternal Disability HIV Tuberculosis  
(years) rate (per 1,000 live births) mortality ratio incidence incidence



### Clean Water Vulnerability

**SCORE: 0.909** **RANK: 2/24 PROVINCES ASSESSED**

**24.2%** **78.1%**  
Households Households  
without piped without sewage  
water services



### Information Access Vulnerability

**SCORE: 0.601** **RANK: 4/24 PROVINCES ASSESSED**

**4.0%** **81.2%** **79.5%** **3.89**  
Illiteracy Rate Secondary School Education investment per  
(Age 10+) education enrollment capita (million pesos)  
completion rate



### Economic Constraints

**SCORE: 0.672** **RANK: 6/24 PROVINCES ASSESSED**

**56.4** **6.2%** **38.9%**  
Economic Unemployment Poverty rate  
dependency rate



### Gender Inequality

**SCORE: 0.386** **RANK: 21/24 PROVINCES ASSESSED**

**1.78** **47.4**  
Female to male Female judiciary  
unemployment seats



### Population Pressures

**SCORE: 0.471** **RANK: 17/24 PROVINCES ASSESSED**

**1.1%**  
Average Annual  
population  
change



## COPING CAPACITY (CC)

**RANK: 21 / 24 PROVINCES ASSESSED**  
**SCORE: 0.369**

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



### Economic Capacity



**SCORE: 0.422** **RANK: 12/24 PROVINCES ASSESSED**

**865.6**

Exports per capita  
(USD)

**0.8%**

Work insurance  
coverage

**31.3**

Tax distribution



### Governance



**SCORE: 0.558** **RANK: 9/24 PROVINCES ASSESSED**

**15.8**

Crime  
prevalence

**80.5%**

Voter  
participation



### Environmental Capacity



**SCORE: 0.435** **RANK: 9/24 PROVINCES ASSESSED**

**1.5%**

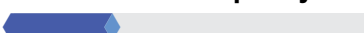
Protected area

**52.1%**

Forest cover



### Infrastructure Capacity



**SCORE: 0.295** **RANK: 22/24 PROVINCES ASSESSED**



### Health Care Capacity

**SCORE: 0.301** **RANK: 24/24 PROVINCES ASSESSED**

**38.2**

Hospital beds per  
10,000 people

**19.6**

Physicians per  
10,000 people

**44.1%**

Health insurance  
coverage

**25.4**

Average distance to nearest  
hospital (km<sup>2</sup>)



### Transportation Capacity

**SCORE: 0.649** **RANK: 9/24 PROVINCES ASSESSED**

**0.30**

Road density (km per sq. km)

**17.9**

Average distance to port (km)

**96.9%**

Proportion of roads improved



### Communications Capacity

**SCORE: 0.123** **RANK: 22/24 PROVINCES ASSESSED**

**23.7%**

Households with Internet

**11.3%**

Television subscriptions per  
100 people



### Energy Capacity

**SCORE: 0.107** **RANK: 22/24 PROVINCES ASSESSED**

**86.5%**

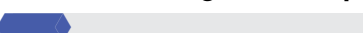
Households with electricity

**20.3%**

Households with gas



### Disaster Management Capabilities



**SCORE: 0.169** **RANK: 22/24 PROVINCES ASSESSED**

**70.5**

Distance to fire  
station (km)

**0**

Shelters per 100k  
persons

**41.7%**

Radiobase  
access



## RESILIENCE (R)

**RANK: 21 / 24 PROVINCES**

**SCORE: 0.407**

Santiago del Estero's score and ranking are due to High Vulnerability combined with Very Low Coping Capacity scores.

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



**Clean Water  
Access  
Vulnerability**



**Economic  
Constraints**



**Energy Capacity**



**Communications  
Capacity**



## HAZARD-SPECIFIC RISK (HSR)



**Earthquake**

**RANK: 10 / 24 PROVINCES ASSESSED**

**SCORE: 0.024**



**Wildfire**

**RANK: 12 / 24 PROVINCES ASSESSED**

**SCORE: 0.308**



**Volcano**

**RANK: 9 / 24 PROVINCES ASSESSED**

**SCORE: 0.000**



**Flood**

**RANK: 5 / 24 PROVINCES ASSESSED**

**SCORE: 0.343**



**Landslide**

**RANK: 8 / 24 PROVINCES ASSESSED**

**SCORE: 0.265**



**Drought**

**RANK: 4 / 24 PROVINCES ASSESSED**

**SCORE: 0.526**



**Extreme Temperature**

**RANK: 3 / 24 PROVINCES ASSESSED**

**SCORE: 0.462**





## MULTI-HAZARD RISK (MHR)

**3 / 24**

 RANK WITHIN PROVINCES  
 Score: 0.607

Santiago del Estero's score and ranking are due to High Multi-hazard exposure combined with High Vulnerability and Very Low Coping Capacity scores.

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



#### Multi-Hazard Exposure


 DISTRICT SCORE  
 COUNTRY SCORE


#### Vulnerability



#### Coping Capacity



# SANTIAGO DEL ESTERO RECOMMENDATIONS

## 1

### Clean Water Access Vulnerability

Findings show that Santiago del Estero Province ranks 2nd highest in Argentina in Overall Clean Water Access Vulnerability. Over 24% of homes in Santiago del Estero Province do not have access to piped water, and 78% are not connected to sewer services. Invest in improved water and sanitation infrastructure to increase access to clean water and reduce health risks.

Findings show a high risk of drought and extreme heat in Santiago del Estero Province. Protect the agricultural sector by investing in infrastructure to promote water conservation and support farmers through training and education on drought resistant crop varieties and farming practices to reduce water stress and drought impacts.

The Province is also exposed to recurrent flooding. Educate and build preparedness among exposed communities on potential impacts of floods on fresh water and sanitation systems. Replace dated and unimproved water and sanitation infrastructure to reduce potential impacts and increase resilience.

## 2

### Economic Constraints

Findings show that Santiago del Estero Province has the 4th highest overall Economic Constraints in Argentina, characterized by the country's 4th highest poverty rate (3.89%) combined with the 8th highest economic dependency ratio. Support new business opportunities to diversify livelihoods and generate prospects for equitable distribution of property and economic assets in the Province.

Consider long-term economic plans that both promote social benefits for elderly, low income, and single-parent households, and allocate the revenue required to balance the costs of these benefits.

Economic constraints in Santiago del Estero are closely linked to Information Access Vulnerability and vice versa. Removing economic barriers to education, and ensuring equitable access to schools, educational resources, and information technology will reduce vulnerability in the district.

## SANTIAGO DEL ESTERO RECOMMENDATIONS

### 3

#### Energy Capacity

Santiago del Estero Province ranks 22nd in overall Energy Capacity, with 86% of households reporting connection to the electricity network, and 20por% of households connected to the natural gas network. Focus development programs on increasing energy capacity by establishing sustainable power generation in underserved communities and extending the existing transmission and distribution network.

### 4

#### Communications Capacity

Findings show that Santiago del Estero Province ranks 22nd in the country in overall Communication Capacity. Just 24% of households have access to the internet – 3rd lowest in the country, and there are just 11 television subscriptions per 100 people. Pursue public-private partnerships to increase availability and affordability of internet and television communications.

While investing to diversify access to communication technology, officials should broadcast critical information and disaster warnings primarily via alternate media (such as radio) to keep the population informed and ensure that appropriate actions are taken. Santiago del Estero Province is exposed to drought, extreme temperature, wildfire, landslide, and flood hazards.

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**ARGENTINA**

# **TIERRA DEL FUEGO**

**NDPBA PROVINCE PROFILE**

# ARGENTINA

## TIERRA DEL FUEGO

**CAPITAL: USHUAIA**

Area: 20,920 km<sup>2</sup>

Tierra del Fuego Province is located in the Patagonia region of Argentina. This Province is divided into 5 Provinces, the Capital being Tierra del Fuego. The Province borders Chile. The main economic sources are tourism, fishing, manufacturing, livestock, agriculture, petroleum and gas.



### RISK AND VULNERABILITY

#### COMPONENT SCORE



**MULTI-HAZARD RISK (MHR) - Very Low**

Score: 0.39 • Rank: 23/24



**RESILIENCE (R) - Very High**

Score: 0.542 • Rank: 2/24



**MULTI-HAZARD EXPOSURE (MHE) - Very Low**

Score: 0.253 • Rank: 21/24



**VULNERABILITY (V) - Very Low**

Score: 0.411 • Rank: 23/24



**COPING CAPACITY (CC) - High**

Score: 0.494 • Rank: 9/24



Population (2018)

**1,654,388**



Population in Poverty

**17.9%**



Illiterate population

**0.7%**



Access to improved water

**94.2%**



Average life expectancy

**77.0 years**

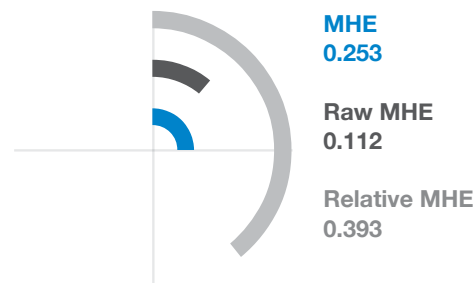
\*For more information on data and components please visit: <https://bit.ly/2LqVoUO>



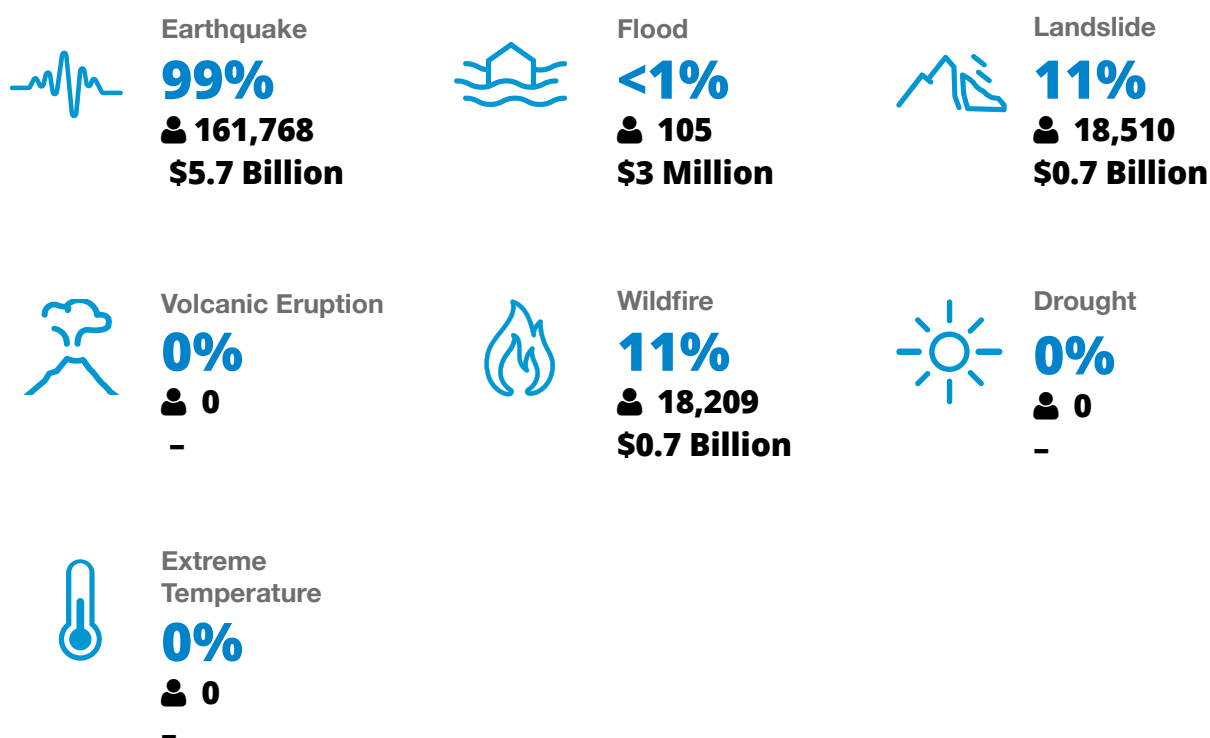
## MULTI-HAZARD EXPOSURE (MHE)

RANK: 21 / 24 PROVINCES

SCORE: 0.253



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







## VULNERABILITY (V)

**RANK: 23 / 24 PROVINCES ASSESSED**  
**SCORE: 0.411**

Vulnerability in Tierra del Fuego is primarily driven by Population Pressures and Gender Inequality. The bar chart indicates the socioeconomic themes contributing to the province's overall Vulnerability score.



### Environmental Stress

**SCORE: 0.137 RANK: 24/24 PROVINCES ASSESSED**

**3.0%**

Land  
degradation

**0**

Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status

**SCORE: 0.163 RANK: 24/24 PROVINCES ASSESSED**

**77**

Life expectancy  
(years)

**6.7**

Infant mortality  
rate (per 1,000  
live births)

**3.5**

Maternal  
mortality ratio

**9.8%**

Disability

**26.2**

HIV  
incidence

**6.2**

Tuberculosis  
incidence



### Clean Water Vulnerability

**SCORE: 0.153 RANK: 22/24 PROVINCES ASSESSED**

**5.8%**

Households  
without piped  
water

**10.7%**

Households  
without sewage  
services



### Information Access Vulnerability

**SCORE: 0.333 RANK: 21/24 PROVINCES ASSESSED**

**0.7%**

Illiteracy Rate  
(Age 10+)

**81.2%**

Secondary  
education  
completion rate

**96.9%**

School  
enrollment

**2.31**

Education investment per  
capita (million pesos)



### Economic Constraints

**SCORE: 0.237 RANK: 23/24 PROVINCES ASSESSED**

**43.9**

Economic  
dependency  
ratio

**6.3%**

Unemployment  
rate

**17.9%**

Poverty rate



### Gender Inequality

**SCORE: 0.876 RANK: 1/24 PROVINCES ASSESSED**

**2.04**

Female to male  
unemployment

**23.3**

Female judiciary  
seats



### Population Pressures

**SCORE: 0.979 RANK: 2/24 PROVINCES ASSESSED**

**3.1%**

Average Annual  
population  
change





## COPING CAPACITY (CC)

**RANK: 9 / 24 PROVINCES ASSESSED**  
**SCORE: 0.494**

Tierra del Fuego exhibits weaker Coping Capacity in the areas of Transportation Capacity and Disaster Management Capabilities. The bar chart indicates the socioeconomic themes contributing to the province's overall Coping Capacity score.



### Economic Capacity

**SCORE: 0.541 RANK: 5/24 PROVINCES ASSESSED**

**913.7**

Exports per capita  
(USD)

**0.4%**

Work insurance  
coverage

**55.2**

Tax distribution



### Governance

**SCORE: 0.461 RANK: 19/24 PROVINCES ASSESSED**

**9.9**

Crime  
prevalence

**75.9%**

Voter  
participation



### Environmental Capacity

**SCORE: 0.444 RANK: 8/24 PROVINCES ASSESSED**

**13.7%**

Protected area

**34.0%**

Forest cover



### Infrastructure Capacity

**SCORE: 0.555 RANK: 7/24 PROVINCES ASSESSED**



### Health Care Capacity

**SCORE: 0.472 RANK: 12/24 PROVINCES ASSESSED**

**23**

Hospital beds per  
10,000 people

**53.1**

Physicians per  
10,000 people

**78.5%**

Health insurance  
coverage

**91.3**

Average distance to nearest  
hospital (km<sup>2</sup>)



### Transportation Capacity

**SCORE: 0.201 RANK: 22/24 PROVINCES ASSESSED**

**0.07**

Road density (km per sq. km)

**16.6**

Average distance to port (km)

**44.2%**

Proportion of roads improved



### Communications Capacity

**SCORE: 0.968 RANK: 1/24 PROVINCES ASSESSED**

**74.6%**

Households with Internet

**27.1%**

Television subscriptions per  
100 people



### Energy Capacity

**SCORE: 0.578 RANK: 14/24 PROVINCES ASSESSED**

**93.8%**

Households with electricity

**78.4%**

Households with gas



### Disaster Management Capabilities

**SCORE: 0.442 RANK: 13/24 PROVINCES ASSESSED**

**86.2**

Distance to fire  
station (km)

**3.7**

Shelters per 100k  
persons

**46.2%**

Radiobase  
access



## RESILIENCE (R)

RANK: 2 / 24 PROVINCES

SCORE: 0.542

Tierra del Fuego's score and ranking are due to Very Low Vulnerability combined with High Coping Capacity scores.

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



Population Pressures



Gender Inequality



Transportation Capacity



Disaster Management Capabilities



## HAZARD-SPECIFIC RISK (HSR)



Earthquake

RANK: 5 / 24 PROVINCES ASSESSED

SCORE: 0.413



Wildfire

RANK: 20 / 24 PROVINCES ASSESSED

SCORE: 0.100



Volcano

RANK: 9 / 24 PROVINCES ASSESSED

SCORE: 0.000



Flood

RANK: 24 / 24 PROVINCES ASSESSED

SCORE: 0.000



Landslide

RANK: 21 / 24 PROVINCES ASSESSED

SCORE: 0.049



Drought

RANK: 22 / 24 PROVINCES ASSESSED

SCORE: 0.000



Extreme Temperature

RANK: 14 / 24 PROVINCES ASSESSED

SCORE: 0



## MULTI-HAZARD RISK (MHR)

**23 / 24**

RANK WITHIN PROVINCES  
Score: 0.39

Tierra del Fuego's score and ranking are due to Very Low Multi-hazard exposure combined with Very Low Vulnerability and High Coping Capacity scores.

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



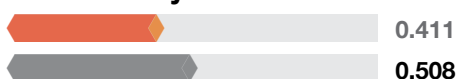
#### Multi-Hazard Exposure



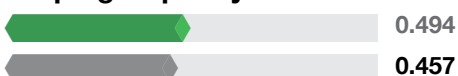
DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



# TIERRA DEL FUEGO RECOMMENDATIONS

## 1

### Population Pressures

Tierra del Fuego Province experienced the 2nd largest average annual population increase between 2010 and 2019 (3.1%). As population growth steadily increases, closely monitor development to prevent environmental stress and ensure that resource and infrastructure needs are met.

Incorporate multi-hazard mapping and risk assessment into land-use plans and zoning regulations to reduce and prevent development in hazard-prone areas of the Province.

## 2

### Gender Inequality

Focus efforts to support equal labor participation by diversifying economic opportunities for women in the Province.

Promote social benefit programs that support single parents with children.

Encourage women to participate in the disaster management planning and decision-making process through inclusion community emergency brigades and representation in local government.

## TIERRA DEL FUEGO RECOMMENDATIONS

### 3

#### Transportation Capacity

Findings show that Tierra del Fuego Province ranks 22nd in Overall Transportation Capacity. Only 44% of roads are paved, and the Province exhibits the 3rd lowest road density in Argentina.

Invest in transportation infrastructure to facilitate the distribution of resources and services before, during, and after a disaster

### 4

#### Disaster Management Capabilities

Focus on building community and volunteer fire and emergency response corps. Identify government or external resources to conduct emergency services training and conduct Province-level exercise on a regular basis.

Pursue public-private partnerships to increase radiobase access to increase availability, security, and resilience of disaster communications.

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# ARGENTINA

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# TUCUMÁN

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## NDPBA PROVINCE PROFILE

# ARGENTINA TUCUMÁN

**CAPITAL: SAN MIGUEL DE TUCUMÁN**

Area: 22,539 km²

Tucumán Province is located in the Noroeste Argentino (NOA) region of Argentina. This Province is divided into 17 Provinces, the Capital being Tucumán. The Province borders the Provinces of Salta, Santiago del Estero and Catamarca. The main economic sources are agriculture, livestock, manufacturing and tourism.



## RISK AND VULNERABILITY COMPONENT SCORE



**MULTI-HAZARD RISK (MHR) - Very High**

Score: 0.612 • Rank: 2/24



**RESILIENCE (R) - Low**

Score: 0.448 • Rank: 15/24



**MULTI-HAZARD EXPOSURE (MHE) - High**

Score: 0.734 • Rank: 5/24



**VULNERABILITY (V) - Moderate**

Score: 0.546 • Rank: 10/24



**COPING CAPACITY (CC) - Low**

Score: 0.443 • Rank: 15/24



Population (2018)

**164,944**



Population in Poverty

**32.2%**



Illiterate population

**2.5%**



Access to improved water

**88.8%**



Average life expectancy

**75.1 years**

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





## MULTI-HAZARD EXPOSURE (MHE)

RANK: 5 / 24 PROVINCES

SCORE: 0.734

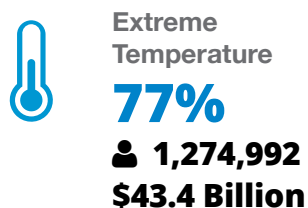
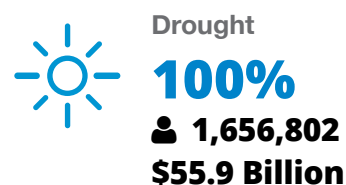
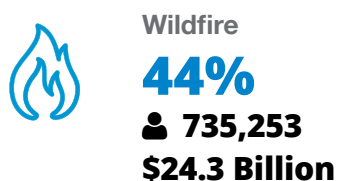
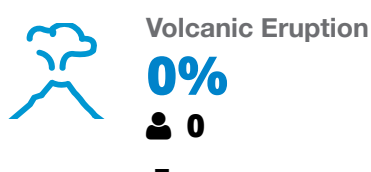
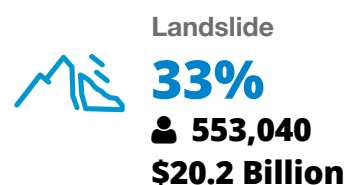
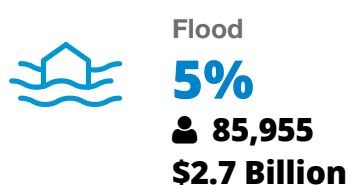
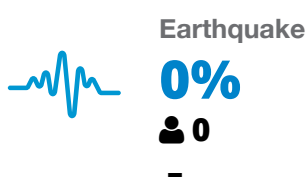


MHE  
0.734

Raw MHE  
0.579

Relative MHE  
0.889

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





## VULNERABILITY (V)

**RANK: 10 / 24 PROVINCES ASSESSED**  
**SCORE: 0.546**

Vulnerability in Tucumán is primarily driven by Economic Constraints and Population Pressures. The bar chart indicates the socioeconomic themes contributing to the province's overall Vulnerability score.



### Environmental Stress



**SCORE: 0.464 RANK: 15/24 PROVINCES ASSESSED**

**4.3%**

Land  
degradation

**7.9**

Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status



**SCORE: 0.442 RANK: 10/24 PROVINCES ASSESSED**

**75.1**

Life expectancy  
(years)

**11**

Infant mortality  
rate (per 1,000  
live births)

**2.8**

Maternal  
mortality ratio

**14.3%**

Disability

**15.7**

HIV  
incidence

**11.2**

Tuberculosis  
incidence



### Clean Water Vulnerability



**SCORE: 0.519 RANK: 8/24 PROVINCES ASSESSED**

**11.2%**

Households  
without piped  
water

**53.4%**

Households  
without sewage  
services



### Information Access Vulnerability



**SCORE: 0.539 RANK: 10/24 PROVINCES ASSESSED**

**2.5%**

Illiteracy Rate  
(Age 10+)

**80.4%**

Secondary  
education  
completion rate

**87.0%**

School  
enrollment

**2.7**

Education investment per  
capita (million pesos)



### Economic Constraints



**SCORE: 0.745 RANK: 3/24 PROVINCES ASSESSED**

**55.8**

Economic  
dependency  
ratio

**7.9%**

Unemployment  
rate

**32.2%**

Poverty rate



### Gender Inequality



**SCORE: 0.556 RANK: 13/24 PROVINCES ASSESSED**

**1.89**

Female to male  
unemployment

**45**

Female judiciary  
seats



### Population Pressures



**SCORE: 0.558 RANK: 9/24 PROVINCES ASSESSED**

**1.3%**

Average Annual  
population  
change



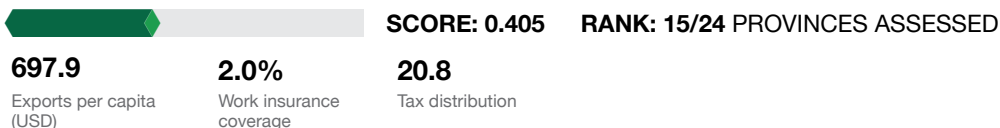
## COPING CAPACITY (CC)

**RANK: 15 / 24 PROVINCES ASSESSED**  
**SCORE: 0.443**

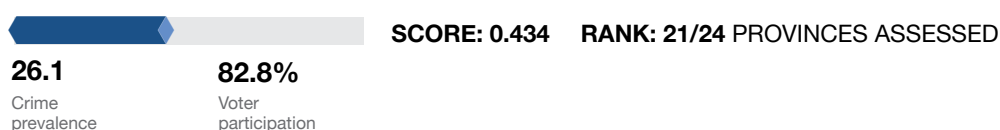
Tucumán exhibits weaker Coping Capacity in the areas of Communications Capacity and Disaster Management Capabilities. The bar chart indicates the socioeconomic themes contributing to the province's overall Coping Capacity score.



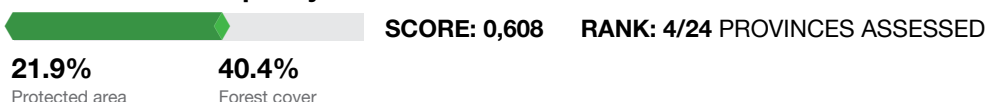
### Economic Capacity



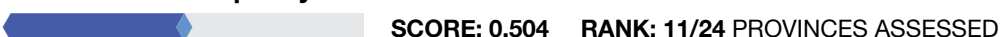
### Governance



### Environmental Capacity



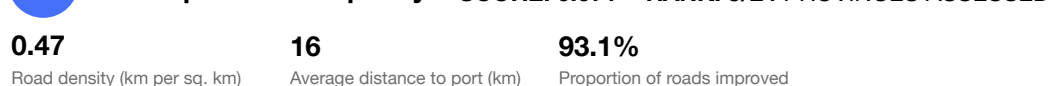
### Infrastructure Capacity



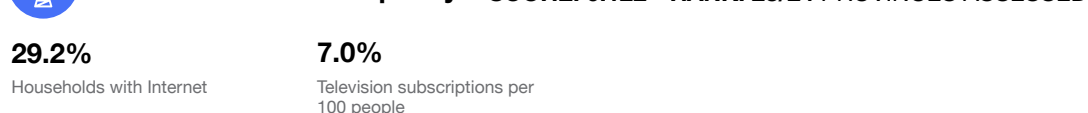
### Health Care Capacity



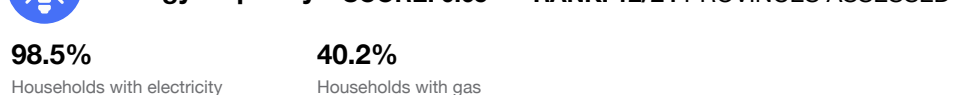
### Transportation Capacity



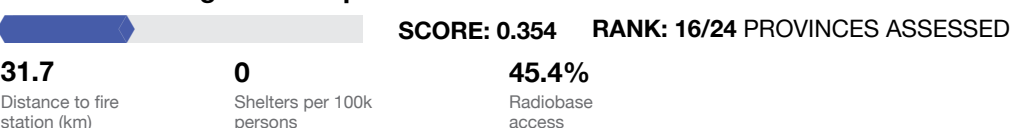
### Communications Capacity



### Energy Capacity



### Disaster Management Capabilities





## RESILIENCE (R)

**RANK: 15 / 24 PROVINCES**

**SCORE: 0.448**

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

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



**Economic  
Constraints**



**Population  
Pressures**



**Communications  
Capacity**



**Disaster  
Management  
Capabilities**



## HAZARD-SPECIFIC RISK (HSR)



**Earthquake**

**RANK: 13 / 24 PROVINCES ASSESSED**

**SCORE: 0.000**



**Wildfire**

**RANK: 3 / 24 PROVINCES ASSESSED**

**SCORE: 0.418**



**Volcano**

**RANK: 9 / 24 PROVINCES ASSESSED**

**SCORE: 0.000**



**Flood**

**RANK: 13 / 24 PROVINCES ASSESSED**

**SCORE: 0.196**



**Landslide**

**RANK: 2 / 24 PROVINCES ASSESSED**

**SCORE: 0.344**



**Drought**

**RANK: 6 / 24 PROVINCES ASSESSED**

**SCORE: 0.508**



**Extreme Temperature**

**RANK: 5 / 24 PROVINCES ASSESSED**

**SCORE: 0.44**



## MULTI-HAZARD RISK (MHR)

**2 / 24**

RANK WITHIN PROVINCES  
Score: 0.612

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

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



#### Multi-Hazard Exposure



DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



# TUCUMÁN RECOMMENDATIONS

## 1

### Economic Constraints

Findings show that Tucumán Province has the highest unemployment rate in Argentina (7.9%), with the 3rd highest overall Economic Constraints.

Continue to support new business opportunities to diversify livelihoods and generate prospects for employment, and equitable distribution of property and economic assets in the Province.

Promote educational programs that build the skillsets required to enter the workforce. Develop school-to-work programs in addition to preparatory instruction for higher education.

## 2

### Population Pressures

Tucumán Province experienced the 9th largest average annual population increase between 2010 and 2019 (1.3%). As population growth steadily increases, closely monitor development to prevent environmental stress and ensure that resource and infrastructure needs are met.

Incorporate multi-hazard mapping and risk assessment into land-use plans and zoning regulations to reduce and prevent development in hazard-prone areas of the Province.

# TUCUMÁN RECOMMENDATIONS

## 3

### Communications Capacity

Findings show that Tucumán Province ranks 23rd in the country in overall Communication Capacity. Just 29% of households have access to the internet, and there are 7 television subscriptions per 100 people. Pursue public-private partnerships to increase availability and affordability of internet and television communications.

While investing to diversify access to communication technology, officials should broadcast critical information and disaster warnings primarily via alternate media (such as radio) to keep the population informed and ensure that appropriate actions are taken. Tucumán Province is exposed to drought, extreme temperature, wildfire, landslide and flood hazards.

## 4

### Disaster Management Capabilities

Pursue public-private partnerships to increase radiobase access to increase availability, security, and resilience of disaster communications.

Establish designated emergency shelters. Coordinate with the Argentine Red Cross to provide shelter management training for community volunteer and provincial staff.

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## NDPBA PROVINCE PROFILE

## CAPITAL:

Area: km<sup>2</sup>

## RISK AND VULNERABILITY COMPONENT SCORE



### MULTI-HAZARD RISK (MHR) -

Score: • Rank: /



### RESILIENCE (R) -

Score: • Rank: /



### MULTI-HAZARD EXPOSURE (MHE) -

Score: • Rank: /



### VULNERABILITY (V) -

Score: • Rank: /



### COPING CAPACITY (CC) -

Score: • Rank: /



Population (2018)



Population in Poverty



Illiterate population



Access to improved water



Average life expectancy  
**years**

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



## MULTI-HAZARD EXPOSURE (MHE)

RANK: / S  
SCORE:



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



Earthquake



Flood



Landslide



Volcanic Eruption



Wildfire



Drought



Extreme  
Temperature





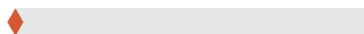
## VULNERABILITY (V)

**RANK: / PROVINCES ASSESSED**  
**SCORE:**

Vulnerability in is primarily driven by and . The bar chart indicates the socioeconomic themes contributing to the 's overall Vulnerability score.



### Environmental Stress



**SCORE:**

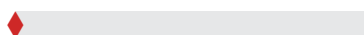
**RANK: / PROVINCES ASSESSED**

Land  
degradation

Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status



**SCORE:**

**RANK: / PROVINCES ASSESSED**

Life expectancy  
(years)

Infant mortality  
rate (per 1,000  
live births)

Maternal  
mortality ratio

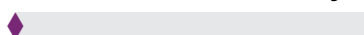
Disability

HIV  
incidence

Tuberculosis  
incidence



### Clean Water Vulnerability



**SCORE:**

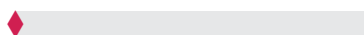
**RANK: / PROVINCES ASSESSED**

Households  
without piped  
water

Households  
without sewage  
services



### Information Access Vulnerability



**SCORE:**

**RANK: / PROVINCES ASSESSED**

Illiteracy Rate  
(Age 10+)

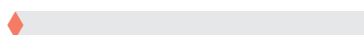
Secondary  
education  
completion rate

School  
enrollment

Education investment per  
capita (million pesos)



### Economic Constraints



**SCORE:**

**RANK: / PROVINCES ASSESSED**

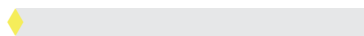
Economic  
dependency  
ratio

Unemployment  
rate

Poverty rate



### Gender Inequality



**SCORE:**

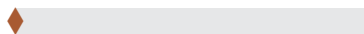
**RANK: / PROVINCES ASSESSED**

Female to male  
unemployment

Female judiciary  
seats



### Population Pressures



**SCORE:**

**RANK: / PROVINCES ASSESSED**

Average Annual  
population  
change



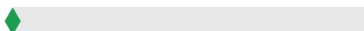
## COPING CAPACITY (CC)

**RANK: / PROVINCES ASSESSED**  
**SCORE:**

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



### Economic Capacity



**SCORE:**

**RANK: / PROVINCES ASSESSED**

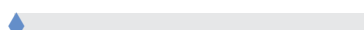
Exports per capita (USD)

Work insurance coverage

Tax distribution



### Governance



**SCORE:**

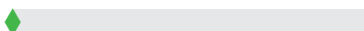
**RANK: / PROVINCES ASSESSED**

Crime prevalence

Voter participation



### Environmental Capacity



**SCORE:**

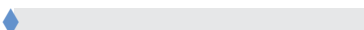
**RANK: / PROVINCES ASSESSED**

Protected area

Forest cover



### Infrastructure Capacity



**SCORE:**

**RANK: / PROVINCES ASSESSED**



### Health Care Capacity

**SCORE:**

**RANK: / PROVINCES ASSESSED**

Hospital beds per 10,000 people

Physicians per 10,000 people

Health insurance coverage

Average distance to nearest hospital (km2)



### Transportation Capacity

**SCORE:**

**RANK: / PROVINCES ASSESSED**

Road density (km per sq. km)

Average distance to port (km)

Proportion of roads improved



### Communications Capacity

**SCORE:**

**RANK: / PROVINCES ASSESSED**

Households with Internet

Television subscriptions per 100 people



### Energy Capacity

**SCORE:**

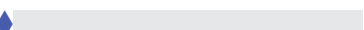
**RANK: / PROVINCES ASSESSED**

Households with electricity

Households with gas



### Disaster Management Capabilities



**SCORE:**

**RANK: / PROVINCES ASSESSED**

Distance to fire station (km)

Shelters per 100k persons

Radiobase access



## RESILIENCE (R)

RANK: / S  
SCORE:

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

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



## HAZARD-SPECIFIC RISK (HSR)



Earthquake

RANK: / 24 PROVINCES ASSESSED  
SCORE:



Wildfire

RANK: / 24 PROVINCES ASSESSED  
SCORE:



Volcano

RANK: / 24 PROVINCES ASSESSED  
SCORE:



Flood

RANK: / 24 PROVINCES ASSESSED  
SCORE:



Landslide

RANK: / 24 PROVINCES ASSESSED  
SCORE:



Drought

RANK: / 24 PROVINCES ASSESSED  
SCORE:

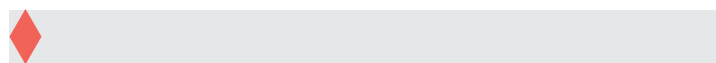


Extreme Temperature

RANK: / 24 PROVINCES ASSESSED  
SCORE:



## MULTI-HAZARD RISK (MHR)



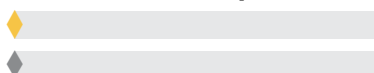
/  
RANK WITHIN S  
Score:

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

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



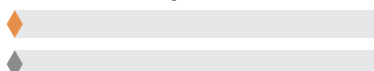
#### Multi-Hazard Exposure



DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



## RECOMMENDATIONS

1

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2

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## RECOMMENDATIONS

3

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4

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## NDPBA PROVINCE PROFILE

## CAPITAL:

Area: km<sup>2</sup>

## RISK AND VULNERABILITY COMPONENT SCORE



### MULTI-HAZARD RISK (MHR) -

Score: • Rank: /



### RESILIENCE (R) -

Score: • Rank: /



### MULTI-HAZARD EXPOSURE (MHE) -

Score: • Rank: /



### VULNERABILITY (V) -

Score: • Rank: /



### COPING CAPACITY (CC) -

Score: • Rank: /



Population (2018)



Population in Poverty



Illiterate population



Access to improved water



Average life expectancy  
**years**

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



## MULTI-HAZARD EXPOSURE (MHE)

RANK: / S  
SCORE:



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



Earthquake



Flood



Landslide



Volcanic Eruption



Wildfire



Drought



Extreme  
Temperature





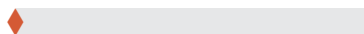
## VULNERABILITY (V)

**RANK: / PROVINCES ASSESSED**  
**SCORE:**

Vulnerability in is primarily driven by and . The bar chart indicates the socioeconomic themes contributing to the 's overall Vulnerability score.



### Environmental Stress



**SCORE:**

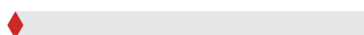
**RANK: / PROVINCES ASSESSED**

Land  
degradation

Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status



**SCORE:**

**RANK: / PROVINCES ASSESSED**

Life expectancy  
(years)

Infant mortality  
rate (per 1,000  
live births)

Maternal  
mortality ratio

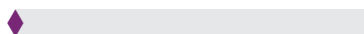
Disability

HIV  
incidence

Tuberculosis  
incidence



### Clean Water Vulnerability



**SCORE:**

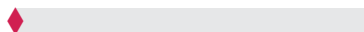
**RANK: / PROVINCES ASSESSED**

Households  
without piped  
water

Households  
without sewage  
services



### Information Access Vulnerability



**SCORE:**

**RANK: / PROVINCES ASSESSED**

Illiteracy Rate  
(Age 10+)

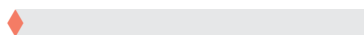
Secondary  
education  
completion rate

School  
enrollment

Education investment per  
capita (million pesos)



### Economic Constraints



**SCORE:**

**RANK: / PROVINCES ASSESSED**

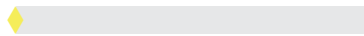
Economic  
dependency  
ratio

Unemployment  
rate

Poverty rate



### Gender Inequality



**SCORE:**

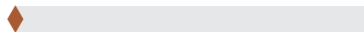
**RANK: / PROVINCES ASSESSED**

Female to male  
unemployment

Female judiciary  
seats



### Population Pressures



**SCORE:**

**RANK: / PROVINCES ASSESSED**

Average Annual  
population  
change



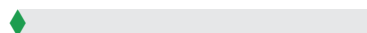
## COPING CAPACITY (CC)

**RANK: / PROVINCES ASSESSED**  
**SCORE:**

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



### Economic Capacity



**SCORE:**

**RANK: / PROVINCES ASSESSED**

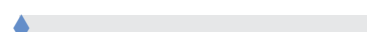
Exports per capita (USD)

Work insurance coverage

Tax distribution



### Governance



**SCORE:**

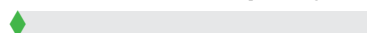
**RANK: / PROVINCES ASSESSED**

Crime prevalence

Voter participation



### Environmental Capacity



**SCORE:**

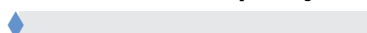
**RANK: / PROVINCES ASSESSED**

Protected area

Forest cover



### Infrastructure Capacity



**SCORE:**

**RANK: / PROVINCES ASSESSED**



### Health Care Capacity

**SCORE:**

**RANK: / PROVINCES ASSESSED**

Hospital beds per 10,000 people

Physicians per 10,000 people

Health insurance coverage

Average distance to nearest hospital (km2)



### Transportation Capacity

**SCORE:**

**RANK: / PROVINCES ASSESSED**

Road density (km per sq. km)

Average distance to port (km)

Proportion of roads improved



### Communications Capacity

**SCORE:**

**RANK: / PROVINCES ASSESSED**

Households with Internet

Television subscriptions per 100 people



### Energy Capacity

**SCORE:**

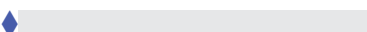
**RANK: / PROVINCES ASSESSED**

Households with electricity

Households with gas



### Disaster Management Capabilities



**SCORE:**

**RANK: / PROVINCES ASSESSED**

Distance to fire station (km)

Shelters per 100k persons

Radiobase access



## RESILIENCE (R)

RANK: / S  
SCORE:

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

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



## HAZARD-SPECIFIC RISK (HSR)



Earthquake

RANK: / 24 PROVINCES ASSESSED  
SCORE:



Wildfire

RANK: / 24 PROVINCES ASSESSED  
SCORE:



Volcano

RANK: / 24 PROVINCES ASSESSED  
SCORE:



Flood

RANK: / 24 PROVINCES ASSESSED  
SCORE:



Landslide

RANK: / 24 PROVINCES ASSESSED  
SCORE:



Drought

RANK: / 24 PROVINCES ASSESSED  
SCORE:



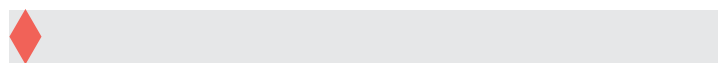
Extreme Temperature

RANK: / 24 PROVINCES ASSESSED  
SCORE:





## MULTI-HAZARD RISK (MHR)



/  
RANK WITHIN S  
Score:

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

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



#### Multi-Hazard Exposure



DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



## RECOMMENDATIONS

1

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2

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## RECOMMENDATIONS

3

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4

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## NDPBA PROVINCE PROFILE

## CAPITAL:

Area: km<sup>2</sup>

## RISK AND VULNERABILITY COMPONENT SCORE



### MULTI-HAZARD RISK (MHR) -

Score: • Rank: /



### RESILIENCE (R) -

Score: • Rank: /



### MULTI-HAZARD EXPOSURE (MHE) -

Score: • Rank: /



### VULNERABILITY (V) -

Score: • Rank: /



### COPING CAPACITY (CC) -

Score: • Rank: /



Population (2018)



Population in Poverty



Illiterate population



Access to improved water



Average life expectancy  
**years**

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



## MULTI-HAZARD EXPOSURE (MHE)

RANK: / S  
SCORE:



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



Earthquake



Flood



Landslide



Volcanic Eruption



Wildfire



Drought



Extreme  
Temperature





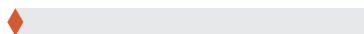
## VULNERABILITY (V)

**RANK:** / PROVINCES ASSESSED  
**SCORE:**

Vulnerability in is primarily driven by and . The bar chart indicates the socioeconomic themes contributing to the 's overall Vulnerability score.



### Environmental Stress



**SCORE:**

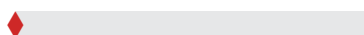
**RANK:** / PROVINCES ASSESSED

Land  
degradation

Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status



**SCORE:**

**RANK:** / PROVINCES ASSESSED

Life expectancy  
(years)

Infant mortality  
rate (per 1,000  
live births)

Maternal  
mortality ratio

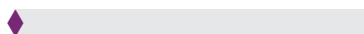
Disability

HIV  
incidence

Tuberculosis  
incidence



### Clean Water Vulnerability



**SCORE:**

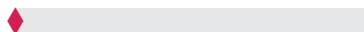
**RANK:** / PROVINCES ASSESSED

Households  
without piped  
water

Households  
without sewage  
services



### Information Access Vulnerability



**SCORE:**

**RANK:** / PROVINCES ASSESSED

Illiteracy Rate  
(Age 10+)

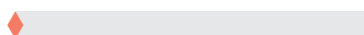
Secondary  
education  
completion rate

School  
enrollment

Education investment per  
capita (million pesos)



### Economic Constraints



**SCORE:**

**RANK:** / PROVINCES ASSESSED

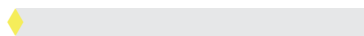
Economic  
dependency  
ratio

Unemployment  
rate

Poverty rate



### Gender Inequality



**SCORE:**

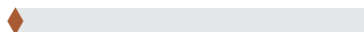
**RANK:** / PROVINCES ASSESSED

Female to male  
unemployment

Female judiciary  
seats



### Population Pressures



**SCORE:**

**RANK:** / PROVINCES ASSESSED

Average Annual  
population  
change





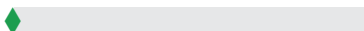
## COPING CAPACITY (CC)

**RANK: / PROVINCES ASSESSED**  
**SCORE:**

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



### Economic Capacity



**SCORE:**

**RANK: / PROVINCES ASSESSED**

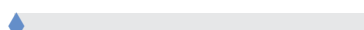
Exports per capita (USD)

Work insurance coverage

Tax distribution



### Governance



**SCORE:**

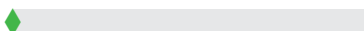
**RANK: / PROVINCES ASSESSED**

Crime prevalence

Voter participation



### Environmental Capacity



**SCORE:**

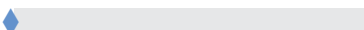
**RANK: / PROVINCES ASSESSED**

Protected area

Forest cover



### Infrastructure Capacity



**SCORE:**

**RANK: / PROVINCES ASSESSED**



### Health Care Capacity

**SCORE:**

**RANK: / PROVINCES ASSESSED**

Hospital beds per 10,000 people

Physicians per 10,000 people

Health insurance coverage

Average distance to nearest hospital (km2)



### Transportation Capacity

**SCORE:**

**RANK: / PROVINCES ASSESSED**

Road density (km per sq. km)

Average distance to port (km)

Proportion of roads improved



### Communications Capacity

**SCORE:**

**RANK: / PROVINCES ASSESSED**

Households with Internet

Television subscriptions per 100 people



### Energy Capacity

**SCORE:**

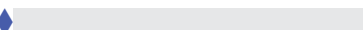
**RANK: / PROVINCES ASSESSED**

Households with electricity

Households with gas



### Disaster Management Capabilities



**SCORE:**

**RANK: / PROVINCES ASSESSED**

Distance to fire station (km)

Shelters per 100k persons

Radiobase access



## RESILIENCE (R)

RANK: / S  
SCORE:

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

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



## HAZARD-SPECIFIC RISK (HSR)



Earthquake

RANK: / 24 PROVINCES ASSESSED  
SCORE:



Wildfire

RANK: / 24 PROVINCES ASSESSED  
SCORE:



Volcano

RANK: / 24 PROVINCES ASSESSED  
SCORE:



Flood

RANK: / 24 PROVINCES ASSESSED  
SCORE:



Landslide

RANK: / 24 PROVINCES ASSESSED  
SCORE:



Drought

RANK: / 24 PROVINCES ASSESSED  
SCORE:

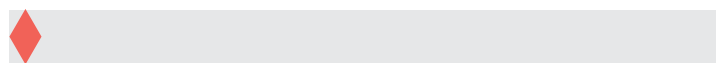


Extreme Temperature

RANK: / 24 PROVINCES ASSESSED  
SCORE:



## MULTI-HAZARD RISK (MHR)



/  
RANK WITHIN S  
Score:

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

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



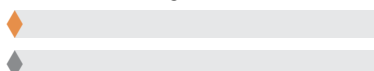
#### Multi-Hazard Exposure



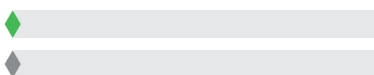
DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



## RECOMMENDATIONS

1

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2

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## RECOMMENDATIONS

3

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4

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## NDPBA PROVINCE PROFILE

## CAPITAL:

Area: km<sup>2</sup>

## RISK AND VULNERABILITY COMPONENT SCORE



### MULTI-HAZARD RISK (MHR) -

Score: • Rank: /



### RESILIENCE (R) -

Score: • Rank: /



### MULTI-HAZARD EXPOSURE (MHE) -

Score: • Rank: /



### VULNERABILITY (V) -

Score: • Rank: /



### COPING CAPACITY (CC) -

Score: • Rank: /



Population (2018)



Population in Poverty



Illiterate population



Access to improved water



Average life expectancy  
**years**

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





## MULTI-HAZARD EXPOSURE (MHE)

RANK: / S  
SCORE:



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



Earthquake



Flood



Landslide



Volcanic Eruption



Wildfire



Drought



Extreme  
Temperature





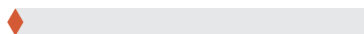
## VULNERABILITY (V)

**RANK: / PROVINCES ASSESSED**  
**SCORE:**

Vulnerability in is primarily driven by and . The bar chart indicates the socioeconomic themes contributing to the 's overall Vulnerability score.



### Environmental Stress



**SCORE:**

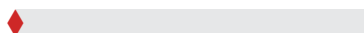
**RANK: / PROVINCES ASSESSED**

Land  
degradation

Land affected  
by wildfire (per  
100k ha)



### Vulnerable Health Status



**SCORE:**

**RANK: / PROVINCES ASSESSED**

Life expectancy  
(years)

Infant mortality  
rate (per 1,000  
live births)

Maternal  
mortality ratio

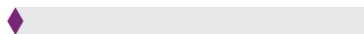
Disability

HIV  
incidence

Tuberculosis  
incidence



### Clean Water Vulnerability



**SCORE:**

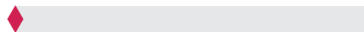
**RANK: / PROVINCES ASSESSED**

Households  
without piped  
water

Households  
without sewage  
services



### Information Access Vulnerability



**SCORE:**

**RANK: / PROVINCES ASSESSED**

Illiteracy Rate  
(Age 10+)

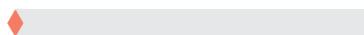
Secondary  
education  
completion rate

School  
enrollment

Education investment per  
capita (million pesos)



### Economic Constraints



**SCORE:**

**RANK: / PROVINCES ASSESSED**

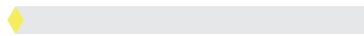
Economic  
dependency  
ratio

Unemployment  
rate

Poverty rate



### Gender Inequality



**SCORE:**

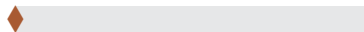
**RANK: / PROVINCES ASSESSED**

Female to male  
unemployment

Female judiciary  
seats



### Population Pressures



**SCORE:**

**RANK: / PROVINCES ASSESSED**

Average Annual  
population  
change



## COPING CAPACITY (CC)

**RANK: / PROVINCES ASSESSED**  
**SCORE:**

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



### Economic Capacity



**SCORE:**

**RANK: / PROVINCES ASSESSED**

Exports per capita (USD)

Work insurance coverage

Tax distribution



### Governance



**SCORE:**

**RANK: / PROVINCES ASSESSED**

Crime prevalence

Voter participation



### Environmental Capacity



**SCORE:**

**RANK: / PROVINCES ASSESSED**

Protected area

Forest cover



### Infrastructure Capacity



**SCORE:**

**RANK: / PROVINCES ASSESSED**



### Health Care Capacity

**SCORE:**

**RANK: / PROVINCES ASSESSED**

Hospital beds per 10,000 people

Physicians per 10,000 people

Health insurance coverage

Average distance to nearest hospital (km2)



### Transportation Capacity

**SCORE:**

**RANK: / PROVINCES ASSESSED**

Road density (km per sq. km)

Average distance to port (km)

Proportion of roads improved



### Communications Capacity

**SCORE:**

**RANK: / PROVINCES ASSESSED**

Households with Internet

Television subscriptions per 100 people



### Energy Capacity

**SCORE:**

**RANK: / PROVINCES ASSESSED**

Households with electricity

Households with gas



### Disaster Management Capabilities



**SCORE:**

**RANK: / PROVINCES ASSESSED**

Distance to fire station (km)

Shelters per 100k persons

Radiobase access



## RESILIENCE (R)

RANK: / S  
SCORE:

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

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



## HAZARD-SPECIFIC RISK (HSR)



Earthquake

RANK: / 24 PROVINCES ASSESSED  
SCORE:



Wildfire

RANK: / 24 PROVINCES ASSESSED  
SCORE:



Volcano

RANK: / 24 PROVINCES ASSESSED  
SCORE:



Flood

RANK: / 24 PROVINCES ASSESSED  
SCORE:



Landslide

RANK: / 24 PROVINCES ASSESSED  
SCORE:



Drought

RANK: / 24 PROVINCES ASSESSED  
SCORE:

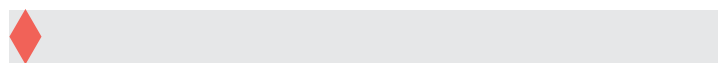


Extreme Temperature

RANK: / 24 PROVINCES ASSESSED  
SCORE:



## MULTI-HAZARD RISK (MHR)



/  
RANK WITHIN S  
Score:

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

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



#### Multi-Hazard Exposure



DISTRICT SCORE  
COUNTRY SCORE



#### Vulnerability



#### Coping Capacity



## RECOMMENDATIONS

1

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2

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## RECOMMENDATIONS

3

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4

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**Better solutions.  
Fewer disasters.**

# Safer world.

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