



PARAGUAY

CANINDEYÚ

NDPBA DEPARTMENT PROFILE

PARAGUAY

CANINDEYÚ

CAPITAL: SALTO DE GUAIRÁ

Area: 18,156 (km²)

The Canindeyú department is located in the Eastern region of Paraguay. This department is divided into 13 districts: Salto del Guairá (The Capital), Corpus Christi, Villa Curuguaty, Villa Ygatimí, Itanará, Ypejhú, Francisco Caballero Alvarez, Katueté, La Paloma del Espíritu Santo, Nueva Esperanza, Yasy Cañy, Ybyrarobaná, Yby Pytá. The department borders Brazil, and the departments of Alto Paraná, Amambay, Caaguazú and San Pedro. The main economic sources are commercial activities and agriculture.



RISK AND VULNERABILITY

COMPONENT SCORE



MULTI-HAZARD RISK (MHR) - High

Score: 0.590 • Rank: 6/18



RESILIENCE (R) - Low

Score: 0.463 • Rank: 11/18



MULTI-HAZARD EXPOSURE (MHE) - High

Score: 0.696 • Rank: 6/18



VULNERABILITY (V) - High

Score: 0.609 • Rank: 4/18



COPING CAPACITY (CC) - High

Score: 0.535 • Rank: 6/18



Population (2015)

226,111



Infant Mortality Rate

13.5



Illiterate population

11.1%



Access to improved water

86.6%



Average life expectancy

73.7 years

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



MULTI-HAZARD EXPOSURE (MHE)

RANK: 6 / 18 DEPARTMENT
SCORE: 0.696



MHE
0.696

Raw MHE
0.416

Relative MHE
0.976

ESTIMATED POPULATION AND CAPITAL EXPOSED TO EACH HAZARD:



Inland Flood

12%

26,313

\$581.5 Million



Wildfire

74%

169,003

\$1.8 Billion



Water Deficit

59%

134,451

\$1.3 Billion



Drought

100%

227,336

\$2.3 Billion



Extreme Cold

-

-

-



Storm

100%

227,336

\$2.3 Billion



VULNERABILITY (V)

RANK: 4 / 18 DEPARTMENTS ASSESSED
SCORE: 0.609

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



Environmental Stress

0 1 **SCORE: 0.701** **RANK: 2/18 DEPARTMENTS ASSESSED**

3.71% Cultivated Area Change
31.92% Deforestation



Vulnerable Health Status

0 1 **SCORE: 0.354** **RANK: 15/18 DEPARTMENTS ASSESSED**

73.7 Life Expectancy (years)
13.5 Infant Mortality Rate (per 1,000 live births)
110.5 Maternal Mortality Ratio
20.39 Adult Malnutrition
18.1% Population with Disability
52.5% Population Reporting Illness or Injury



Clean Water Vulnerability

0 1 **SCORE: 0.368** **RANK: 7/18 DEPARTMENTS ASSESSED**

86.58% Households with Improved Water Source
65.51% Households with Improved Sanitation



Information Access Vulnerability

0 1 **SCORE: 0.666** **RANK: 6/18 DEPARTMENTS ASSESSED**

11.1% Illiteracy Rate (Age 10+)
7.2 Average Years of Schooling
17.27% Households with Internet
81.69% Households with Television
74.8% Households with Radio



Economic Constraints

0 1 **SCORE: 0.655** **RANK: 6/18 DEPARTMENTS ASSESSED**

58.06 Economic Dependency Ratio
38.04% Poverty Rate
0.53 Income Inequality (GINI)



Gender Inequality

0 1 **SCORE: 0.543** **RANK: 6/18 DEPARTMENTS ASSESSED**

0.10 Female to Male Secondary Education*
0.38 Female to Male Economic Activity*
0.30 Female to Male Average Monthly Income*

*Higher values indicate greater gender disparity.



Population Pressures

0 1 **SCORE: 0.974** **RANK: 3/18 DEPARTMENTS ASSESSED**

2.28% Average Annual Population Change



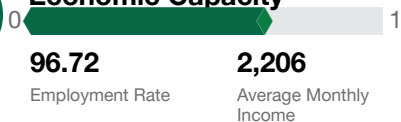
COPING CAPACITY (CC)

RANK: 6 / 18 DEPARTMENTS ASSESSED
SCORE: 0.535

Canindeyú exhibits weaker Coping Capacity in the areas of Transportation Capacity and Health Care Capacity. The bar chart indicates the socioeconomic themes contributing to the department's overall Coping Capacity score.



Economic Capacity

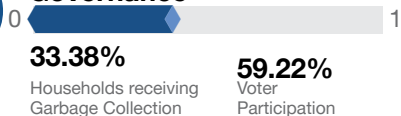


SCORE: 0.678

RANK: 2/18 DEPARTMENTS ASSESSED



Governance

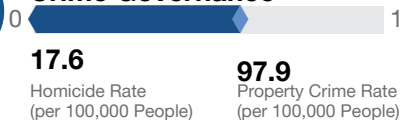


SCORE: 0.399

RANK: 13/18 DEPARTMENTS ASSESSED



Crime Governance



SCORE: 0.594

RANK: 11/18 DEPARTMENTS ASSESSED



Environmental Capacity



SCORE: 0.740

RANK: 2/18 DEPARTMENTS ASSESSED

(COPING CAPACITY CONTINUED)**Infrastructure Capacity****SCORE: 0.525****RANK: 12/18 DEPARTMENTS ASSESSED****Health Care Capacity****SCORE: 0.360****RANK: 13/18 DEPARTMENTS ASSESSED****5.59**Hospital Beds per
10,000 People**9.02**Physicians per
10,000 People**9.93**Nurses per 10,000
People**9,229.14**Average Distance to Nearest
Hospital (km²)**84.53%**Vaccination
Coverage**66.25%**Access to
Healthcare**Transportation Capacity****SCORE: 0.320****RANK: 14/18 DEPARTMENTS ASSESSED****0.65**

Road Density (km per sq. km)

101.95

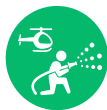
Distance to Airport or Seaport (km)

**Communications Capacity****SCORE: 0.431****RANK: 13/18 DEPARTMENTS ASSESSED****97.5%**

Households with Mobile Phone

1.20%

Households with Fixed Phone

**Energy Capacity****SCORE: 0.987****RANK: 3/18 DEPARTMENTS ASSESSED****99.76%**Households Connected to
Electric Grid**Disaster Management Capacity****SCORE: 0.489****RANK: 16/18 DEPARTMENTS ASSESSED****4.96**Ambulances per
100,000 People**74.2**

Distance to Fire Station

155.11

Distance to Warehouse

**RESILIENCE (R)****RANK: 11 / 18 DEPARTMENTS****SCORE: 0.463**

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

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

**Population
Pressures****Environmental
Stress****Transportation
Capacity****Health Care
Capacity**



HAZARD-SPECIFIC RISK (HSR)



Flood

RANK: 14
SCORE: 0.134



Drought

RANK: 6
SCORE: 0.385



Wildfire

RANK: 8
SCORE: 0.338



Extreme Cold

RANK: 9
SCORE: 0.000



Water Deficit

RANK: 5
SCORE: 0.281



Storm

RANK: 2
SCORE: 0.501



MULTI-HAZARD RISK (MHR)

6 / 18

Rank within departments
Score: 0.590

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

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



Multi-Hazard Exposure

0.696

0.57



Vulnerability

0.609

0.479



Coping Capacity

0.535

0.514



Department score
Country score

CANINDEYÚ RECOMMENDATIONS

1

Population Pressures

Rapid changes in population size and distribution can alter population vulnerability characteristics presenting planning challenges and destabilizing social, economic, and environmental systems. Increased population pressures require disaster managers to realign needs, institutional structures, and available resources to support delivery of basic resources before, during, and after an event.

Findings show that population pressures are a leading driver of vulnerability in Canindeyú. Ranked 4th highest in overall Vulnerability, risk reduction initiatives need to be prioritized. Current food insecurity due to the COVID-19 pandemic and unfavorable climatic factors underscores the need to ensure emergency reserves keep with the growing population. Public awareness and proper preparedness at the household level is also necessary. Continue to efforts to inform the public on precautionary measures and ways to help mitigate hazards, from campaigns to promote water conservation to proper social distancing.

Investing in resilient and eco-conscious infrastructure needs to be a priority, as the growing population add stress to already fragile environmental conditions. Infrastructure projects should ensure construction efficiently use resources, focus on renewable and local materials, and implement proper mitigation techniques. Access healthcare and increased transportation should be the primary areas of investment to keep up with the expanding population.

CANINDEYÚ RECOMMENDATIONS

2

Environmental Stress

Environmental stressors such as the depletion, degradation, or contamination of natural resources can exacerbate natural hazards and negatively impact the health, safety, and economic security of Canindeyú's population.

Food insecurity due to insufficient rains in the midst of the COVID-19 pandemic has greatly impacted Paraguay this year. The decreased production yields in departments including Canindeyú coupled with the shutdowns have impacted food security, which highlights the need to strengthen risk reduction plans.

Actions should be focused on reducing environmental stresses such as deforestation. Forests play a critical role in soil conservation, reducing the impacts of climate change among other ecosystem functions. Enhance efforts to work with local farmers to incorporate drought resistant crops and take other steps to move toward more sustainable agricultural practices.

CANINDEYÚ RECOMMENDATIONS

3

Transportation Capacity

Denser and more diverse transportation networks provide more options for bringing outside resources into an impacted area and increase the ability of response stakeholders to access department populations. Improved transportation capacity supports all aspects of Canindeyú's ability to distribute resources before, during, and after a disaster.

Invest in transportation infrastructure that incorporates holistic risk assessment plans. Ensure that environmental mitigation plans for transportation projects consider the storm and water stress hazards that impact Canindeyú. In addition, the growing population will likely change urbanization dynamics, requiring coordination with land use planners.

Closely monitor hotspots of population growth and ensure emergency plans from evacuation and resource transportation routes are updated.

CANINDEYÚ RECOMMENDATIONS

4

Health Care Capacity

Robust access to skilled caregivers and the dedicated facilities for the treatment of injury and disease during non-disaster times greatly enhances the ability of the served population to absorb and manage post-disaster impacts to health, and increases the likelihood that disaster associated health and medical impacts may be addressed.

Canindeyú is ranked as the 4th lowest department for healthcare capacity in Paraguay. Findings show that there are only 5.59 hospital beds per 10,000 persons. Invest in increased inpatient capacity by acquiring more hospital beds. Additionally, there are only 9.02 physicians per 10,000 persons, which is the 4th lowest out of the 18 departments. Work with NGOs and other partners to increase the number of medical workers available and ensure they are equitably stationed throughout Canindeyú.

Access to healthcare is ranked as the 4th lowest in the country. With the growing population, the need to invest in healthcare capacity through increased number of beds and staff is critical. In addition, current facilities and new construction plans should be built to withstand storm conditions. Building resilient structures and reinforcing existing ones is also important as the department is highly exposed to storms.

**Better solutions.
Fewer disasters.**

Safer world.

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