

**Better solutions.  
Fewer disasters.  
Safer world.**



# Jinotega

**Nicaragua National Disaster Preparedness Baseline Assessment  
Department Profile**

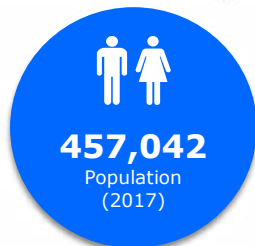
## Department: Jinotega



Department Capital: Jinotega

Area: 9,222 km<sup>2</sup>

Jinotega is in the north-central region of Nicaragua. The department produces 80% of Nicaragua's coffee for global export, as well as providing hydropower to much of the country via Lake Apanas.



Municipality	Population
Wiwilí de Jinotega	82,317
El Cuá	65,711
San Jose del Bocay	63,132
Sta. María de Pantasma	46,566
San Rafael del Norte	22,028
San Sebastián de Yalí	35,358
La Concordia	7,273
Jinotega	134,657

**Multi-Hazard Risk Rank:  
High (5 of 17)**

**Lack of Resilience Rank:  
Very High (3 of 17)**



## RVA Component Scores

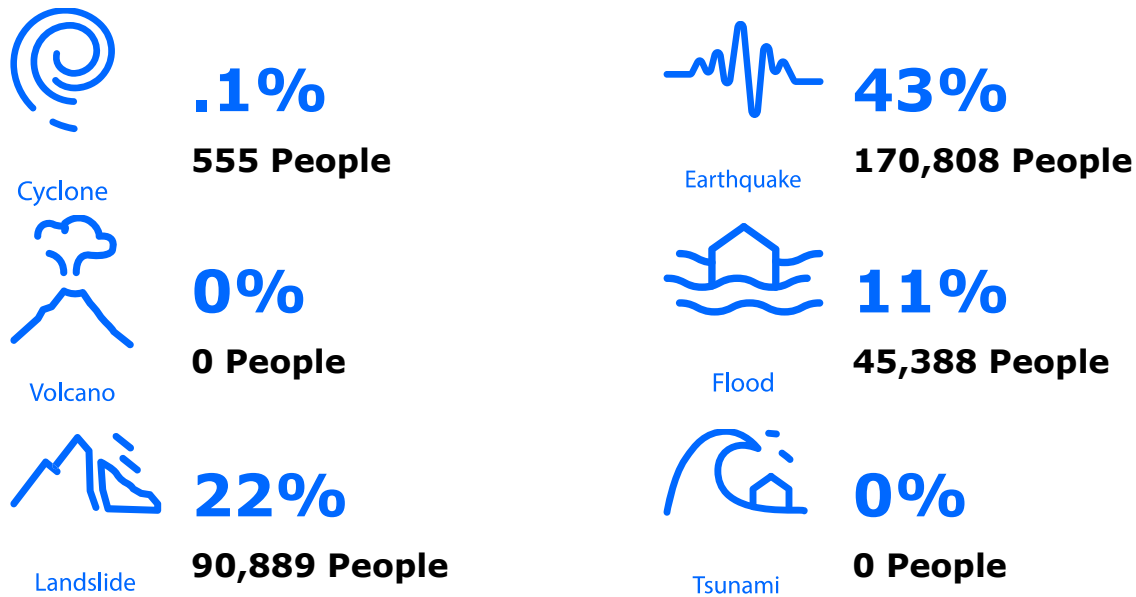
Table 1. Department scores and ranks (compared across departments) for each index

Multi-Hazard Risk		Lack of Resilience		Multi-Hazard Exposure		Vulnerability		Coping Capacity	
High		Very High		Very Low		Very High		Low	
Score	Rank (of 17)	Score	Rank (of 17)	Score	Rank (of 17)	Score	Rank (of 17)	Score	Rank (of 17)
0.498	5	0.651	3	0.190	14	0.728	2	0.425	11

## Multi-Hazard Exposure (MHE)

**Multi-Hazard Exposure<sup>1</sup> Rank: 14 of 17 Departments (Score: 0.190)**

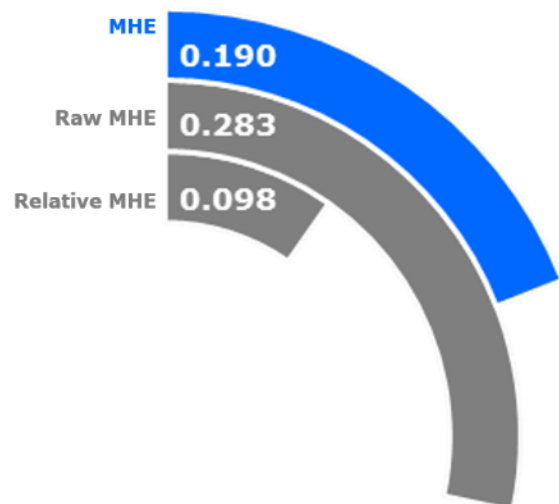
Table 2. Estimated ambient population<sup>2</sup> exposed to each hazard



### Case Study

Jinotega is a highly food insecure department. WFP is currently running a program that provides access to education with a daily meal to pre and primary school children. Along with a meal, children are provided a nutritional education, gardens, and improvements to school infrastructure. WFP hopes increase the disaster resilience of these vulnerable communities.

<https://reliefweb.int/sites/reliefweb.int/files/resource/s/Nicaragua%20Country%20Brief%20February%202017%20OIM.pdf>



<sup>1</sup> Multi-Hazard Exposure: Average exposure of the population to hazards.

<sup>2</sup> Ambient Population: 24-hour average estimate of the population in each department. Ambient population typically differs from census population.

## Vulnerability (V)

**Vulnerability<sup>3</sup> Rank: 2 of 17 Departments (Score: 0.728)** Vulnerability in Jinotega is primarily driven by very high Information Access Vulnerability, Gender Inequality, Economic Constraints, Vulnerable Health Status, Population Pressures, and Clean Water Vulnerability. The bar chart on the right indicates the socioeconomic themes contributing to the department's overall Vulnerability score.

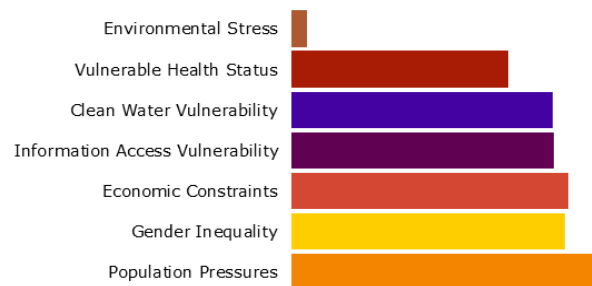









Table 3. Component scores for each vulnerability sub-component

	<b>Environmental Stress</b>	<b>7.8%</b> Province at Drought Risk	<b>11.6%</b> Erosion Risk	<b>59.1</b> Livestock per km <sup>2</sup>			
	<b>Vulnerable Health Status</b>	<b>17.2</b> Infant Mortality Rate	<b>115.0</b> Maternal Mortality Rate	<b>68.7 yrs</b> Average Life Expectancy	<b>1.3%</b> Acute Malnutrition (Children < 5)	<b>2.3%</b> Population Disabled	
	<b>Clean Water Vulnerability</b>	<b>36.5%</b> Households with Access to Improved Water	<b>9.4%</b> Households with Access to Flush Toilets				
	<b>Information Access Vulnerability</b>	<b>37.2%</b> Illiteracy	<b>3.9 yrs</b> Average Years of Schooling	<b>74.8%</b> Primary School Enrollment	<b>98.7%</b> Households without Internet	<b>57.2%</b> Households without TV	<b>29.1%</b> Households without Radio
	<b>Economic Constraints</b>	<b>76.6</b> Economic Dependency Ratio	<b>83.5%</b> Population in Poverty				
	<b>Gender Inequality</b>	<b>37.5%</b> Female Seats in Government	<b>1.2</b> Female to Male Secondary Education Enrollment	<b>0.67</b> Female to Male Labor Ratio			
	<b>Population Pressures</b>	<b>3.23%</b> Average Annual Population Change	<b>4.48%</b> Average Annual Urban Population Change				

<sup>3</sup> **Vulnerability:** The socioeconomic conditions that are associated with the susceptibility to disruptions in a country's normal functions.

## Coping Capacity (CC)

**Coping Capacity<sup>4</sup> Rank: 11 of 17 Departments (Score: 0.425)** Jinotega exhibits weaker Coping Capacity in the areas of Economic Capacity and Infrastructure. The bar chart on the right indicates the socioeconomic themes contributing to the department's overall Coping Capacity score.

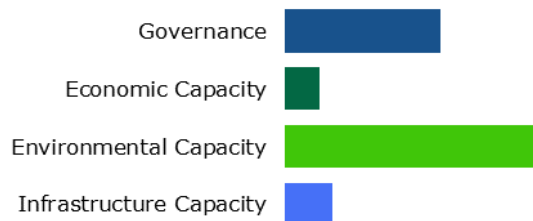


Table 4. Component scores for each coping capacity sub-component

	<b>Economic Capacity</b>	<b>2.2%</b> Households that Receive Remittances	<b>91.5%</b> Employment Rate (Male)	<b>30.2%</b> Employment Rate (Female)	<b>4.7%</b> Population in Highest Welfare Quintile	<b>\$255.0</b> Annual Nominal Global Revenue per Capita	
	<b>Governance</b>	<b>92.9%</b> Crime Complaints Cleared	<b>582.6</b> Crime Rate per 100k Persons	<b>84.1%</b> Households without Garbage Collection	<b>47.4%</b> Voter Participation (2016 Election)		
	<b>Environmental Capacity</b>	<b>52.9%</b> Protected or Reforested Land					
	<b>Infrastructure Capacity</b>						
	<b>Health Care Capacity</b>		<b>7.6</b> Hospital Beds per 10,000 Persons	<b>8.8</b> Nurses per 10,000 Persons	<b>7.1</b> Physicians per 10,000 Persons	<b>32.5 km</b> Average Distance to Nearest Hospital	<b>81.3%</b> Children Completed Immunization Schedule
	<b>Communications Capacity</b>		<b>2.2%</b> Households with Access to Fixed Phone Line	<b>47.5%</b> Households with Access to Mobile Phone			
	<b>Transportation Capacity</b>		<b>78.9 km</b> Average Distance to Nearest Port or Airport	<b>0.25 km</b> Total Length of Road per km <sup>2</sup> (area)			

<sup>4</sup> Coping Capacity: The systems, means, and abilities of a country to absorb and respond to events that could potentially disrupt normal function.

## Lack of Resilience (LR)

**Lack of Resilience<sup>5</sup> Rank: 3 of 17 Departments (Score: 0.651)**

Jinotega's score and ranking are due to very high Vulnerability combined with low Coping Capacity scores.

Table 5. The three thematic areas with the weakest relative scores



**Information  
Access  
Vulnerability**



**Gender  
Inequality**



**Infrastructure  
Capacity**

## Multi-Hazard Risk (MHR)

**Multi-Hazard Risk<sup>6</sup> Rank: 5 of 17 Departments (Score: 0.498)**

Jinotega's score and ranking are driven primarily by its very low Vulnerability and high Coping Capacity scores, despite having very low Multi-Hazard Exposure.

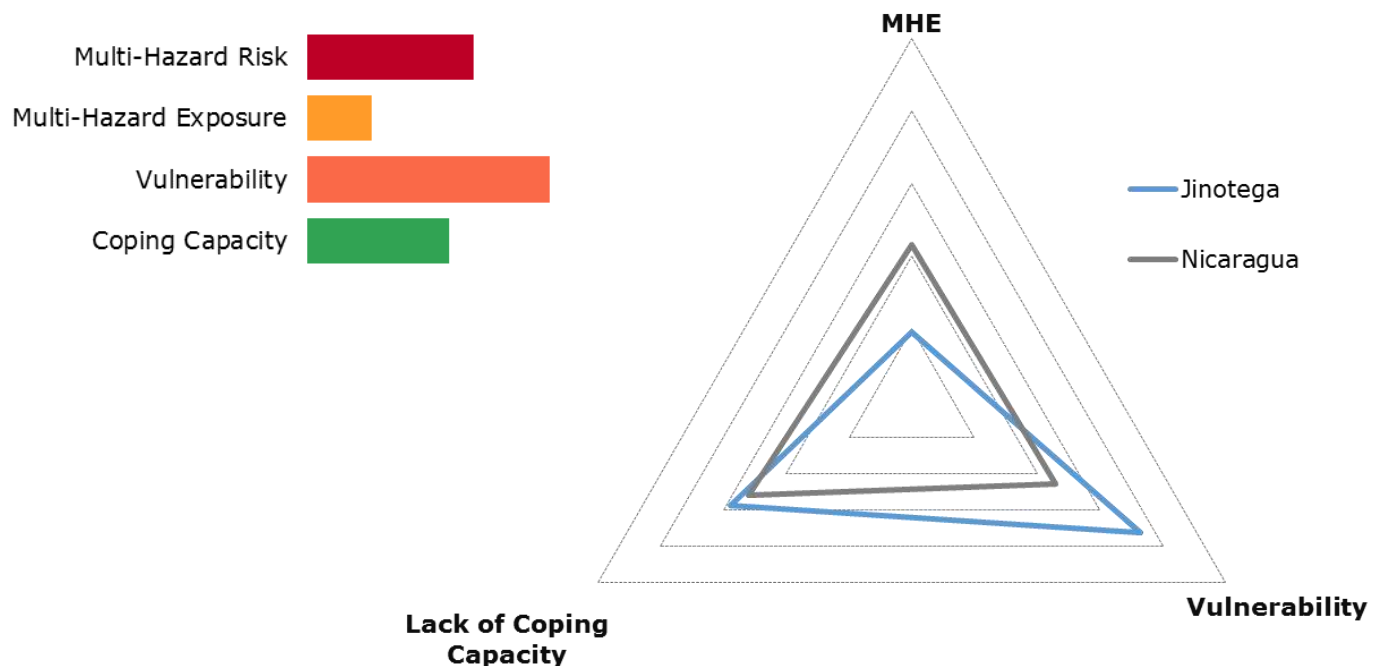


Figure 1. Department Multi-Hazard Risk component scores compared to overall average country scores

<sup>5</sup> **Lack of Resilience:** The susceptibility to impact from the short-term inability to absorb, respond to, and recover from disruptions to a country's normal function. This index provides a hazard-independent look at current socioeconomic conditions.

<sup>6</sup> **Multi-Hazard Risk:** The likelihood of losses or disruptions to a country's normal function due to interaction between multi-hazard exposure, socioeconomic vulnerability, and coping capacity.

## Successes



### Lowest overall environmental stress

Ranked 17 of 17 departments, low environmental stress indicates that natural resources and agriculture will be more resilient to the effects of a disaster and may recover faster.



### High overall governance

Ranked 4 of 17 departments, high governance could facilitate the implementation of disaster management initiatives into departmental and municipal communities.

## Recommendations

01

### Increase information access

Invest in educational programs, including non-traditional, community-based approaches to increase educational attainment and adult literacy. Support comprehensive efforts to increase access to information mediums (phone, internet, TV, radio) and distribute disaster-preparedness and hazard-warning information in multiple formats and across multiple platforms, ensuring that vulnerable communities receive easily understandable and actionable disaster-related information.

02

### Promote Gender Equality

Support equal educational enrollment at all levels; access to the labor market, wages and credit; and political representation to reduce vulnerability.



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