

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

A photograph of a large, conical volcano with a white plume of smoke or ash rising from its peak. The volcano is set against a bright blue sky with scattered white clouds. In the foreground, there is a body of water, likely a lake or a wide river, with a sandy and rocky shoreline. The water is calm, reflecting the sky and the volcano. The overall scene is a natural landscape with a prominent volcanic feature.

Región Autónoma de la Costa Caribe Norte (RAAN)

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

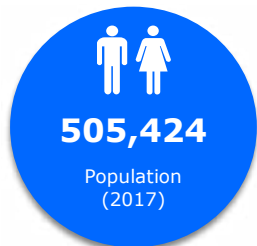
Department: Región Autónoma de la Costa Caribe Norte (RAAN)



Department Capital: Bilwi

Area: 32,820 km²

Región Autónoma de la Costa Caribe Norte is the largest territory in Nicaragua, located in the northeastern part of the country. It is primarily known for its nature reserves, indigenous communities, and its extensive array of seafood.



Municipality	Population
Waspán	59,565
Puerto Cabezas	103,805
Rosita	34,221
Bonanza	27,683
Waslala	69,309
Mulukukú	49,494
Siuna	110,980
Prinzapolka	50,367



**Multi-Hazard Risk Rank:
Very High (1 of 17)**

**Lack of Resilience Rank:
Very High (1 of 17)**

RVA Component Scores

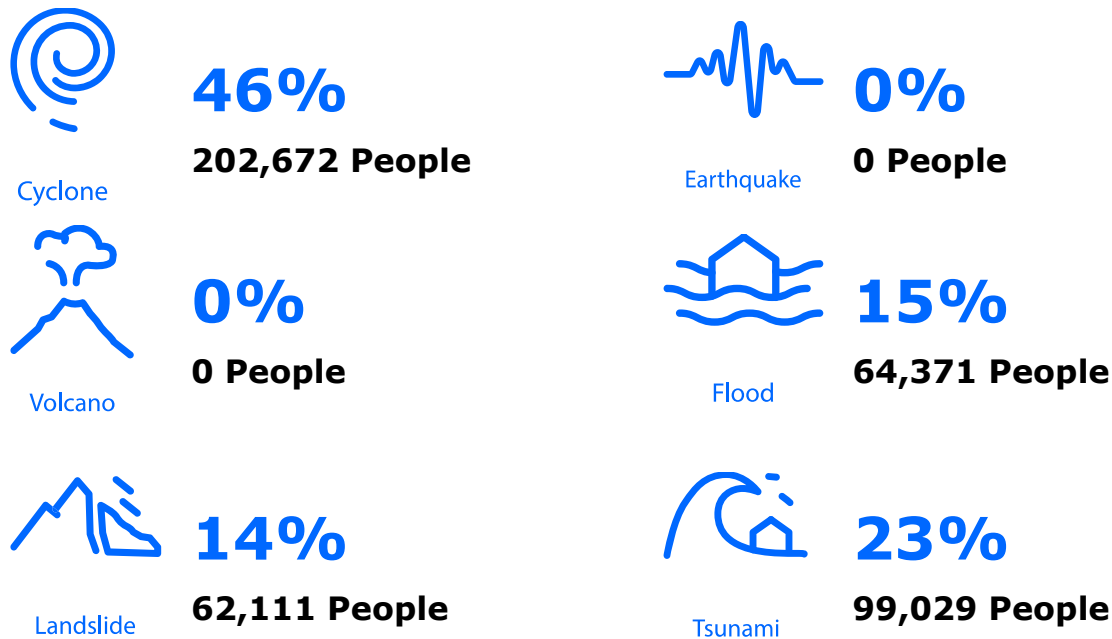
Table 1. Department scores and ranks (compared across departments) for each index

Multi-Hazard Risk		Lack of Resilience		Multi-Hazard Exposure		Vulnerability		Coping Capacity	
Very High		Very High		Low		Very High		Very Low	
Score	Rank (of 17)	Score	Rank (of 17)	Score	Rank (of 17)	Score	Rank (of 17)	Score	Rank (of 17)
0.586	1	0.744	1	0.271	12	0.741	1	0.253	17

Multi-Hazard Exposure (MHE)

Multi-Hazard Exposure¹ Rank: 12 of 17 Departments (Score: 0.271)

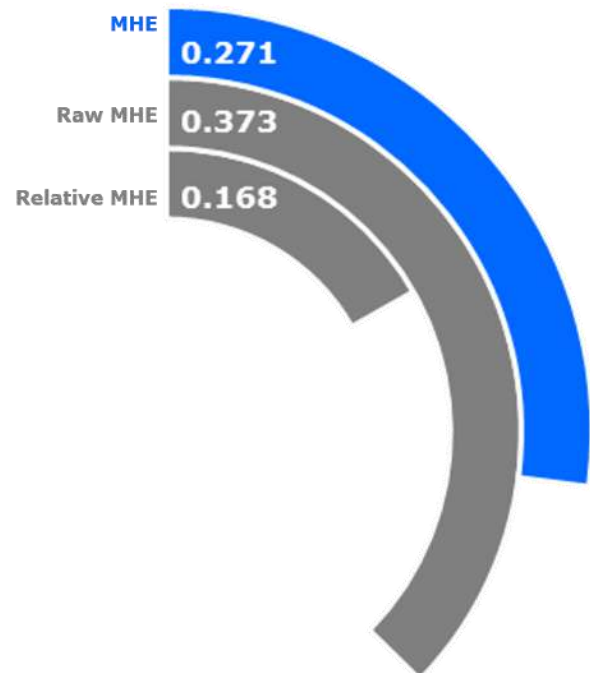
Table 2. Estimated ambient population² exposed to each hazard



Knowledge Recovery in RAAN

In disaster-prone areas of RAAN, “an important effort is being made [...] to create understanding and awareness of how indigenous people cope with natural hazards by tapping into their ancestral store of knowledge and keeping it alive.” Implemented by the Directorate of Adolescents and Youths (DAJ) of the Municipal Mayor’s Office of Puerto Cabezas through support from UNICEF, the research has resulted in “the compilation of local practices that define the communities’ capacities for self-governing of risk management” as well as the acknowledgement of “the importance of ancestral community organization as a key element for preparedness, mitigation, warning and response actions.”

From: *Knowledge Recovery in Nicaragua, UNISDR, 2015*



¹ Multi-Hazard Exposure: Average exposure of the population to hazards.

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

Vulnerability (V)

Vulnerability³ Rank: 1 of 17 Departments

(Score: 0.741) Vulnerability in RAAN is primarily driven by very high Information Access

Vulnerability, Economic Constraints, Population Pressures, Clean Water Vulnerability, and Gender Inequality. The bar chart on the right indicates the socioeconomic themes contributing to the department's overall Vulnerability score.

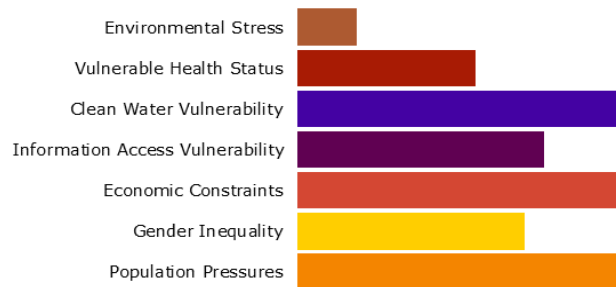









Table 3. Component scores for each vulnerability sub-component

	Environmental Stress	0% Province at Drought Risk	13.5% Erosion Risk	83.0 Livestock per km ²			
	Vulnerable Health Status	15.3 Infant Mortality Rate	94.4 Maternal Mortality Rate	67.4 Average Life Expectancy	1.5% Acute Malnutrition (Children < 5)	0.3% Population Disabled	
	Clean Water Vulnerability	13.2% Households with Access to Improved Water	6.0% Households with Access to Flush Toilets				
	Information Access Vulnerability	37.8% Illiteracy	4.4 yrs Average Years of Schooling	78.9% Primary School Enrollment	97.1% Households without Internet	57.3% Households without TV	35.0% Households without Radio
	Economic Constraints	78.2 Economic Dependency Ratio	92.1% Population in Poverty				
	Gender Inequality	18.8% Female Seats in Government	1.43 Female to Male Secondary Education Enrollment	0.57 Female to Male Labor Ratio			
	Population Pressures	5.3% Average Annual Population Change	7.6% Average Annual Urban Population Change				

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

Coping Capacity (CC)

Coping Capacity⁴ Rank: 17 of 17 Departments (Score: 0.253) RAN exhibits weaker Coping Capacity in the areas of Infrastructure, Economic Capacity, and Governance. The bar chart on the right indicates the socioeconomic themes contributing to the department's overall Coping Capacity score.

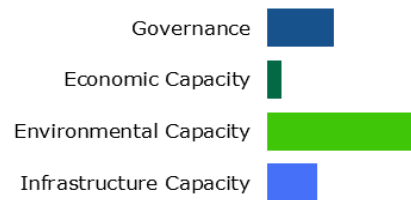


Table 4. Component scores for each coping capacity sub-component

	Economic Capacity	2.7% Households that Receive Remittances	80.1% Employment Rate (Male)	34.8% Employment Rate (Female)	2.3% Population in Highest Welfare Quintile	\$198.8 Annual Nominal Global Revenue per Capita
	Governance	88.3% Crime Complaints Cleared	1090.3 Crime Rate per 100k Persons	96.0% Households without Garbage Collection	22.7% Voter Participation (2016 Election)	
	Environmental Capacity	36.2% Protected or Reforested Land				
	Infrastructure Capacity					
	Health Care Capacity		6.9 Hospital Beds per 10,000 Persons	12.5 Nurses per 10,000 Persons	6.4 Physicians per 10,000 Persons	30.1 km Average Distance to Nearest Hospital
	Communications Capacity		2.2% Households with Access to Fixed Phone Line	52.8% Households with Access to Mobile Phone		
	Transportation Capacity		44.2 km Average Distance to Nearest Port or Airport	0.06 km Total Length of Road per km ² (area)		

⁴ 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 Resilience⁵ Rank: 1 of 17 Departments (Score: 0.744)

Región Autónoma de la Costa Caribe Norte's score and ranking are due to very high Vulnerability combined with very low Coping Capacity scores.

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



Economic Constraints



Clean Water Vulnerability



Population Pressures

Multi-Hazard Risk (MHR)

Multi-Hazard Risk⁶ Rank: 1 of 17 Departments (Score: 0.586)

Región Autónoma de la Costa Caribe Norte's score and ranking are due to high Multi-Hazard Exposure combined with very low Vulnerability and high Coping Capacity scores.

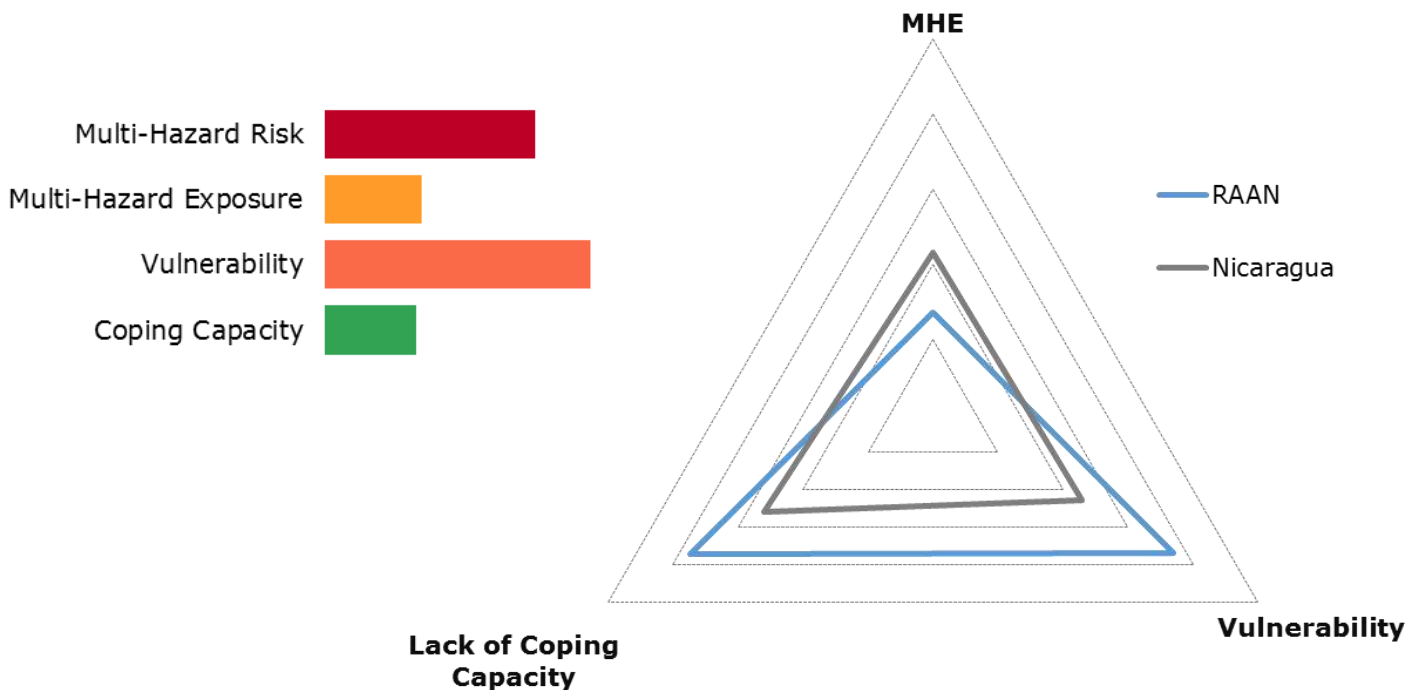


Figure 1. Department Multi-Hazard Risk component scores compared to overall average country scores

⁵ **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.

⁶ **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



Knowledge recovery

Incorporating local knowledge into disaster management practices to promote community engagement.



Very low environmental stress

Ranked 16 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

Recommendations

01

Reduce clean water vulnerability

Invest in public water and sewer infrastructure to ensure equitable access to safe, clean drinking water and sanitation.

02

Alleviate economic constraints

Focus investments to reduce poverty and encourage business development and education programs to increase stable and viable economic opportunities in the region.

03

Plan for urban growth

Ensure local economies, resources, and infrastructure can adequately support the growing population by anticipating urban population pressures and necessary resources.



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