

Better solutions.
Fewer disasters.
Safer world.



Hato Mayor

Dominican Republic National Disaster Preparedness
Baseline Assessment
Province Profile

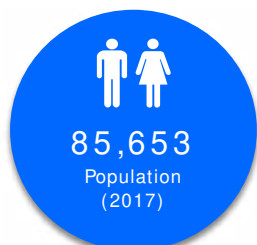
Findings: Risk and Vulnerability Assessment (RVA)

Province: Hato Mayor

Province Capital: Hato Mayor del Rey

Area: 1,482 km²

Located in the east of the country, Hato Mayor is known for its great historic and geological value including the protected area of Refugio de la Vida Silvestre Manglar de la Jina.



Municipality	Population
Hato Mayor	61,981
Sabana De La Mar	16,388
El Valle	7,284



**Multi-Hazard Risk Rank:
Medium (16 of 32)**

**Lack of Resilience Rank:
High (10 of 32)**

RVA Component Scores

Table 1. Province Scores and Ranks (compared across Provinces) for each Index

Multi-Hazard Risk		Lack of Resilience		Multi-Hazard Exposure		Vulnerability		Coping Capacity	
Medium		High		Medium		High		Medium	
Score	Rank (of 32)	Score	Rank (of 32)	Score	Rank (of 32)	Score	Rank (of 32)	Score	Rank (of 32)
0.525	16	0.518	10	0.539	19	0.496	11	0.461	19

Multi-Hazard Exposure (MHE)

Multi-Hazard Exposure¹ Rank: 19 of 32 Provinces (Score: 0.539)

Table 2. Estimated ambient population² exposed to each hazard



Cyclone

100%

106,114 People



Earthquake

100%

106,114 People



Landslide

56%

59,161 People



Flood

34%

35,632 People



Tsunami

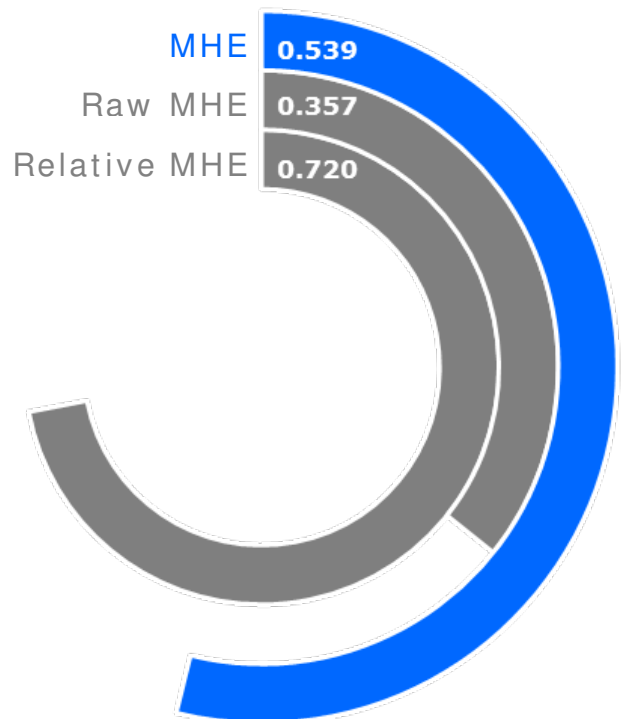
12%

13,230 People

Case Study: Hurricane Maria Rescues in Hato Mayor

When Hurricane Maria hit the east coast of the Dominican Republic on September 21st, 2017, many people living within the province of Hato Mayor found themselves stranded by the rising floodwaters. Master guides from two Adventist churches in the province helped to rescue “dozens of people, including children and the elderly.” Through coordination and rapid action, the master guides were able to pull people to safety at a neighboring church. With the military and fire department unable to access the town in time, local-level emergency response efforts became integral to the survival of many in the province.

“In the Dominican Republic, Master Guides Rescue Dozens from Flood Waters During Hurricane Maria” – Adventist News Network, 26 September 2017



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

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

Findings: Risk and Vulnerability Assessment (RVA)

Vulnerability (V)

Vulnerability³ Rank: 11 of 32 Provinces (Score: 0.496) Vulnerability in Hato Mayor is influenced by Clean Water Vulnerability, Gender Inequality, and Vulnerable Health Status. The bar chart on the right indicates the socioeconomic themes contributing to the Province's overall Vulnerability score.

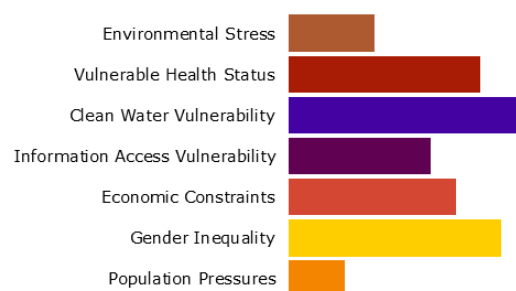









Table 3. Component Scores for each Vulnerability Sub-component

	Environmental Stress	1.7% Province Susceptible to Drought	-2.0% Average Annual Forest Change				
	Vulnerable Health Status	13.5 Infant Mortality Rate	246.2 Maternal Mortality Rate	9.8 Chronic Malnutrition	11.4% Population Disabled		
	Clean Water Vulnerability	44.7% Households without Access to Improved Water	13.5% Households without Access to Flush Toilets				
	Information Access Vulnerability	16.0% Illiteracy	96.1% Primary School Enrollment	94.5% Households without Internet	28.0% Households without TV	57.3% Households without Radio	6.1 Average years of Schooling
	Economic Constraints	58.8 Economic Dependency Ratio	61.5% Population in Poverty	44.4% CEP Beneficiaries			
	Gender Inequality	37.3% Female Seats in Government	1.1 Female to Male Years of Schooling	0.52 Female to Male Labor Ratio			
	Population Pressures	0.06% Average Annual Population Change	0.9% 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: 19 of 32 Provinces (Score: 0.461) The thematic areas with the weakest relative scores are Infrastructure (Transportation and Communications) and Economic Capacity. The bar chart on the right indicates the socioeconomic themes contributing to the province's overall Coping Capacity score.

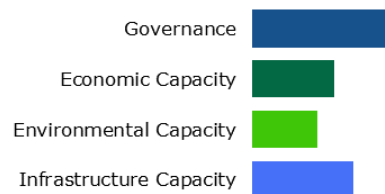


Table 4. Component Scores for each Coping Capacity Sub-component

	Economic Capacity	1.00 Debt to Service Ratio	92.1% Employment Rate (Male)	RD\$ 18,446 Average Annual Income per Capita			
	Governance	76.7% Registered Voter Participation (2016 Election)	14.0 Homicide Rate per 100k persons	65.0% Households with Garbage Collection			
	Environmental Capacity	19.9% Protected or Reforested Land					
	Infrastructure Capacity						
	Health Care Capacity		11.9 Hospital Beds per 10,000 Persons	15.2 Nurses per 10,000 Persons	24.9 Physicians per 10,000 Persons	5.0 km Average Distance to Nearest Hospital	0.76 Vaccination Index ⁵
	Communications Capacity		9.9% Households with Access to Fixed Phone Line	71.4% Households with Access to Mobile Phone			
	Transportation Capacity		27.0 km Average Distance to Nearest Port or Airport	0.40 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.

⁵ Vaccination Coverage Index: Coverage of DPT (diphtheria, pertussis, and tetanus), Polio, Tuberculosis, and Measles vaccinations. Index values range from 0 to 1, with 1 indicating higher coverage.

Lack of Resilience (LR)

Lack of Resilience⁶ Rank: 10 of 32 Provinces (Score: 0.518)

Hato Mayor's score and ranking are due to high Vulnerability combined with moderate Coping Capacity scores. Hato Mayor ranks 11th in Vulnerability and 19th in Coping Capacity.

Table 5. The 3 Thematic areas with the Weakest Relative Scores



Clean Water
Vulnerability



Vulnerable
Health Status



Transportation
Infrastructure
Capacity

Multi-Hazard Risk (MHR)

Multi-Hazard Risk⁷ Rank: 16 of 32 Provinces (Score: 0.525)

Hato Mayor's score and ranking are due to moderate Multi-Hazard Exposure combined with high Vulnerability and moderate Coping Capacity.

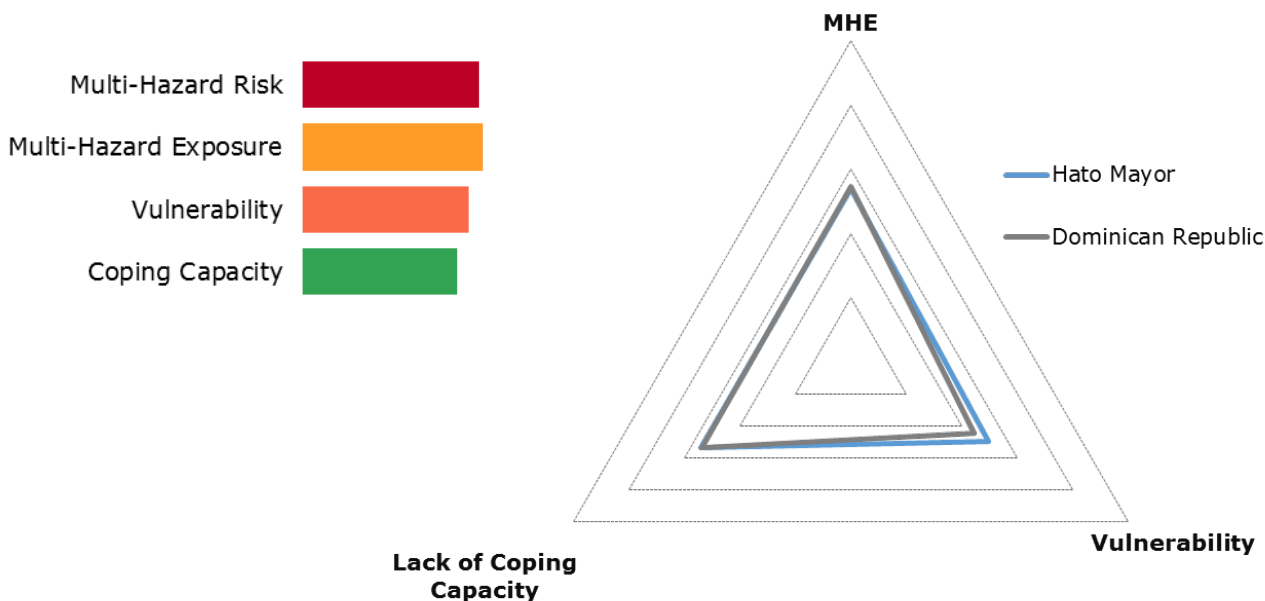


Figure 1. Province Multi-Hazard Risk Component Scores Compared to Overall Average Country Scores

⁶ 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 socio-economic conditions.

⁷ 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



High overall governance

Ranked 6 of 32 provinces, high governance could facilitate the implementation of disaster management initiatives into provincial and municipal communities.



Low population pressures

Ranked 31 of 32 provinces, limited population change allows disaster managers to form accurate evacuation, sheltering, and resource plans.

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

Reduce vulnerable health status

Invest in public welfare services to decrease malnutrition, support the disabled population, and decrease infant and maternal mortality.

03

Increase transportation capacity

Invest in transportation networks to facilitate the movement of goods and services, decreasing wait times for response and relief supplies.