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María Trinidad Sánchez

Dominican Republic National Disaster Preparedness
Baseline Assessment
Province Profile

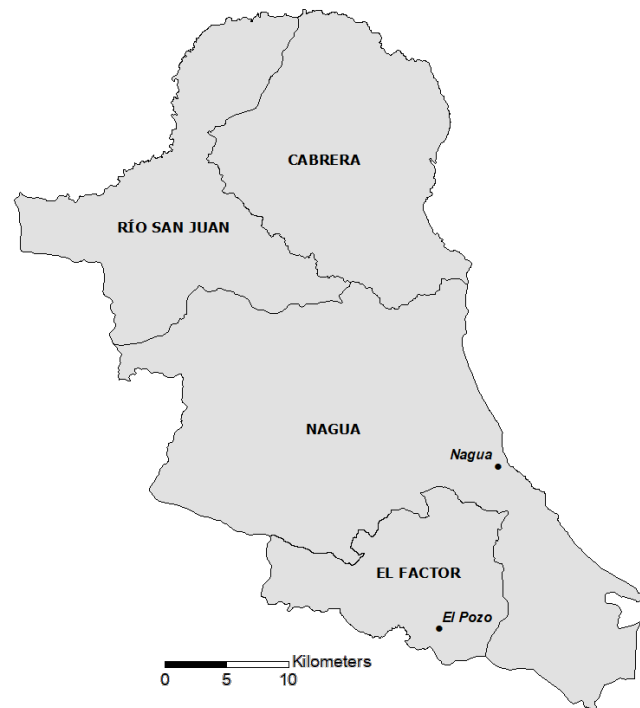## Province: María Trinidad Sánchez

Province Capital: Nagua

Area: 1,364 km^2

Located in the northern region, María Trinidad Sánchez is known for its ecotourism, national parks and agricultural products including rice, coconut and cocoa.

141,284 Population (2017)	**41.6%** Population in Poverty	**14.3%** Illiterate Population	**16.3** Infant Mortality Rate	**75.3%** Access to Improved Water

Municipality	Population
Nagua	77,192
Cabrera	24,587
El Factor	24,301
Rio San Juan	15,204

Multi-Hazard Risk Rank: Very High (7 of 32)

Lack of Resilience Rank: Medium (18 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	
Very High		Medium		High		Medium		Low	
Score	Rank (of 32)	Score	Rank (of 32)	Score	Rank (of 32)	Score	Rank (of 32)	Score	Rank (of 32)
0.555	7	0.487	18	0.691	11	0.398	20	0.423	23

Multi-Hazard Exposure (MHE)

Multi-Hazard Exposure[1] Rank: 11 of 32 Provinces (Score: 0.691)

Table 2. Estimated ambient population[2] exposed to each hazard

Cyclone
100%
163,100 People

Earthquake
100%
163,100 People

Landslide
61%
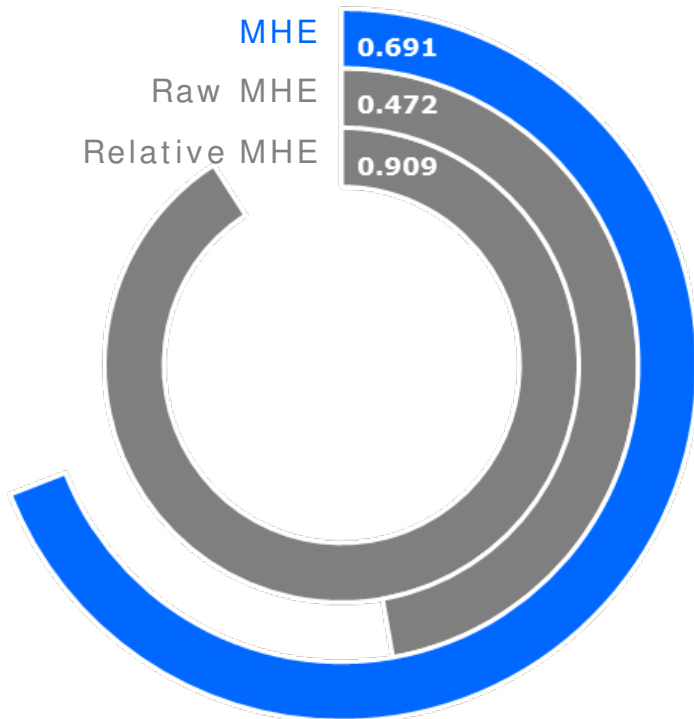99,011 People

Flood
46%
75,103 People

Tsunami
29%
46,632 People

Case Study: Oxfam Support in María Trinidad Sánchez

Following Hurricane Irma, the northern coast of the Dominican Republic was heavily affected. The province of María Trinidad Sánchez experienced significant impacts to people's livelihoods, with "nearly 5,000 acres of crops and more than 100 houses" destroyed. Oxfam, alongside other Caribbean partner organizations, supported relief efforts in the province, "calling on the government to provide humanitarian assistance to the most affected people." This was just one such example of community advocacy which helped to support the larger disaster recovery process in the country.

"Hurricane Irma: Oxfam assists those hit hardest in Haiti, Dominican Republic" – Oxfam, 12 September 2017

MHE 0.691
Raw MHE 0.472
Relative MHE 0.909

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[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.

Vulnerability (V)

Vulnerability[3] Rank: 20 of 32 Provinces (Score: 0.398) Vulnerability in María Trinidad Sánchez is influenced by Gender Inequality and Information Access Vulnerability. The bar chart on the right indicates the socioeconomic themes contributing to the Province's overall Vulnerability score.
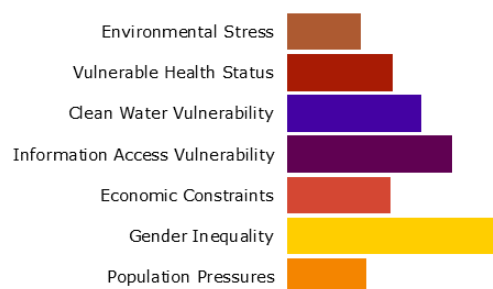

Table 3. Component Scores for each Vulnerability Sub-component

Environmental Stress	0% Province Susceptible to Drought	-1.1% Average Annual Forest Change				
Vulnerable Health Status	16.3 Infant Mortality Rate	86.0 Maternal Mortality Rate	9.1 Chronic Malnutrition	7.6% Population Disabled		
Clean Water Vulnerability	24.7% Households without Access to Improved Water	9.1% Households without Access to Flush Toilets				
Information Access Vulnerability	14.3% Illiteracy	78.9% Primary School Enrollment	93.1% Households without Internet	25.6% Households without TV	54.8% Households without Radio	6.4 Average years of Schooling
Economic Constraints	54.5 Economic Dependency Ratio	41.6% Population in Poverty	40.6% CEP Beneficiaries			
Gender Inequality	34.7% Female Seats in Government	1.1 Female to Male Years of Schooling	0.53 Female to Male Labor Ratio			
Population Pressures	0.01% Average Annual Population Change	2.6% Average Annual Urban Population Change				

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

Coping Capacity (CC)

Coping Capacity[4] Rank: 23 of 32 Provinces (Score: 0.423) The thematic areas with the weakest relative scores are Environmental Capacity, Health Care Capacity and Governance. The bar chart on the right indicates the socioeconomic themes contributing to the province's overall Coping Capacity score.
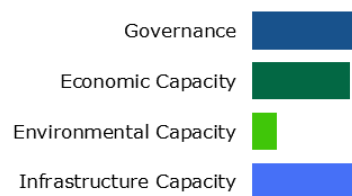

Table 4. Component Scores for each Coping Capacity Sub-component

Economic Capacity	1.06 Debt to Service Ratio	92.6% Employment Rate (Male)	RD$ 23,874 Average Annual Income per Capita		
Governance	76.2% Registered Voter Participation (2016 Election)	17.7 Homicide Rate per 100k persons	56.8% Households with Garbage Collection		
Environmental Capacity	7.7% Protected or Reforested Land				
Infrastructure Capacity					
Health Care Capacity	9.9 Hospital Beds per 10,000 Persons	19.2 Nurses per 10,000 Persons	13.9 Physicians per 10,000 Persons	3.5 km Average Distance to Nearest Hospital	0.17 Vaccination Index[5]
Communications Capacity	10.9% Households with Access to Fixed Phone Line	76.9% Households with Access to Mobile Phone			
Transportation Capacity	33.4 km Average Distance to Nearest Port or Airport	0.70 km Total Length of Road per km² (area)			

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[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 Resilience[6] Rank: 18 of 32 Provinces (Score: 0.487)

María Trinidad Sánchez's score and ranking are due to low Vulnerability combined with low Coping Capacity scores. María Trinidad Sánchez ranks 20th in Vulnerability and 23rd in Coping Capacity.

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

Health Care Infrastructure Capacity

Gender Inequality

Environmental Capacity

Multi-Hazard Risk (MHR)

Multi-Hazard Risk[7] Rank: 7 of 32 Provinces (Score: 0.555)

María Trinidad Sánchez's score and ranking are due to high Multi-Hazard Exposure combined with low Vulnerability and Coping Capacity.
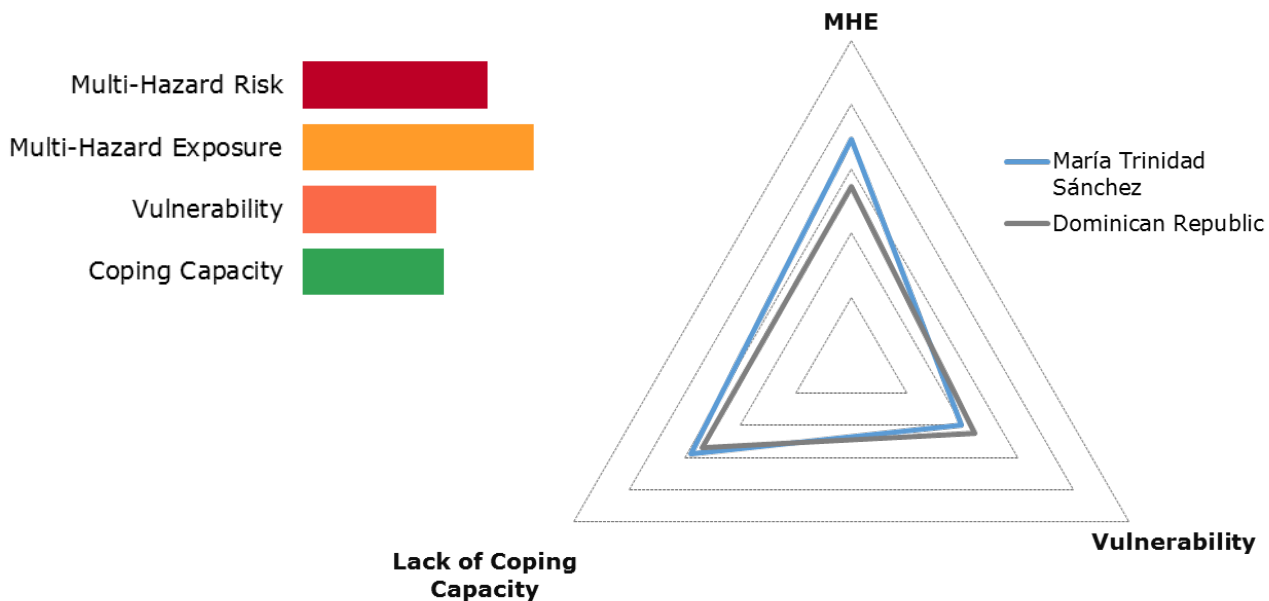

Figure 1. Province Multi-Hazard Risk Component Scores Compared to Overall Average Country Scores

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[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

Lowest environmental stress

Ranked 26 of 32 provinces, low environmental stress indicates that natural resources and agriculture will be more resilient to the effects of a disaster and may recover faster.

Low vulnerable health status

Ranked 25 of 32 provinces, low health vulnerability could indicate a population that will be more resilient to the negative health impacts associated with major disaster events.

Low population pressures

Ranked 28 of 32 provinces, limited population change allows disaster managers to form accurate evacuation, sheltering, and resource plans.

Recommendations

01 Increase health care availability

Increase clinics and medical personnel through incentivized programs and investments to increase the health resilience of the population.

02 Increase environmental programs

Invest in programs to provide protection for the environment, including protected lands and reforestation projects, to increase the ability of the environment to recover after a disaster.

03 Provide opportunities for women

Public education and awareness programs that focus on increasing the role of women in the workplace and the society will improve the resilience of women during disasters.