

Better solutions.
Fewer disasters.
Safer world.



Sánchez Ramírez

Dominican Republic National Disaster Preparedness
Baseline Assessment
Province Profile

Findings: Risk and Vulnerability Assessment (RVA)

Province: Sánchez Ramírez

Province Capital: Cotuí



Area: 1,334 km²

Sánchez Ramírez is located in the center of the country, in the sub-region of the Cibao Central. It is known for its caverns, mining and the production of rice and citrus.



Municipality	Population
Cotuí	6,337
Cevicos	13,818
Fantino	22,210
La Mata	39,124



**Multi-Hazard Risk Rank:
High (13 of 32)**

**Lack of Resilience Rank:
Medium (16 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	
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)
0.530	13	0.501	16	0.588	14	0.403	19	0.401	26

Multi-Hazard Exposure (MHE)

Multi-Hazard Exposure¹ Rank: 14 of 32 Provinces (Score: 0.588)

Table 2. Estimated ambient population² exposed to each hazard



Cyclone

100%

182,229 People



Earthquake

100%

182,229 People



Landslide

52%

93,950 People



Flood

47%

86,490 People



Tsunami

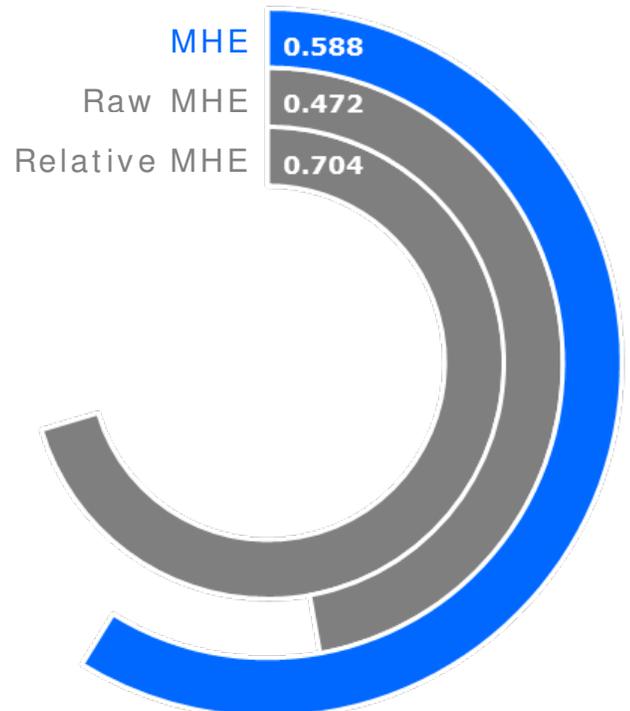
0%

0 People

Case Study: Mining Impacts in Sánchez Ramírez

The Pueblo Viejo gold mines are located within the Province of Sánchez Ramírez “in a world-class mineral reserve with one of the largest untapped gold deposits in the world.” Rural communities near the mines experience direct impacts from the mining, including polluted rivers and dust clouds which expose the local population to a variety of health concerns. Chemicals used in the mining have brought on significant environmental degradation, including the loss of agriculture and wildlife.

“Mining Contamination Threatens Lives in Cotuí” – <https://www.diccionariomedioambiente.org/DiccionarioMedioAmbiente/en/en/noticiaVer.asp?id=1652>, 24 September 2014



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: 19 of 32 Provinces (Score: 0.403) Vulnerability in Sánchez Ramírez is strongly influenced by a high Gender Inequality. The bar chart on the right indicates the socioeconomic themes contributing to the Province's overall Vulnerability score.

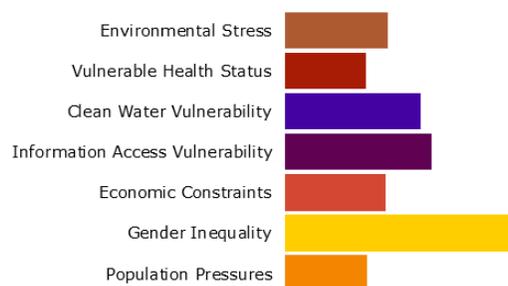


Table 3. Component Scores for each Vulnerability Sub-component

	Environmental Stress	0% Province Susceptible to Drought	-3.8% Average Annual Forest Change				
	Vulnerable Health Status	16.2 Infant Mortality Rate	121.7 Maternal Mortality Rate	7.4 Chronic Malnutrition	5.6% Population Disabled		
	Clean Water Vulnerability	25.7% Households without Access to Improved Water	8.9% Households without Access to Flush Toilets				
	Information Access Vulnerability	14.3% Illiteracy	82.6% Primary School Enrollment	94.0% Households without Internet	21.8% Households without TV	52.0% Households without Radio	6.5 Average years of Schooling
	Economic Constraints	55.9 Economic Dependency Ratio	44.7% Population in Poverty	36.0% CEP Beneficiaries			
	Gender Inequality	32.1% Female Seats in Government	1.1 Female to Male Years of Schooling	0.52 Female to Male Labor Ratio			
	Population Pressures	0.01% Average Annual Population Change	2.9% Average Annual Urban Population Change				

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

Findings: Risk and Vulnerability Assessment (RVA)

Coping Capacity (CC)

Coping Capacity⁴ Rank: 26 of 32 Provinces (Score: 0.401) The thematic areas with the weakest relative scores are Environmental Capacity, Transportation Infrastructure, and Economic Capacity. The bar chart on the right indicates the socioeconomic themes contributing to the province's overall Coping Capacity score.

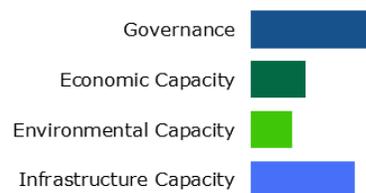


Table 4. Component Scores for each Coping Capacity Sub-component

	Economic Capacity	1.01 Debt to Service Ratio	90.2% Employment Rate (Male)	RD\$ 19,436 Average Annual Income per Capita			
	Governance	79.3% Registered Voter Participation (2016 Election)	16.4 Homicide Rate per 100k persons	55.6% Households with Garbage Collection			
	Environmental Capacity	12.6% Protected or Reforested Land					
	Infrastructure Capacity						
	Health Care Capacity		11.2 Hospital Beds per 10,000 Persons	23.9 Nurses per 10,000 Persons	17.8 Physicians per 10,000 Persons	2.8 km Average Distance to Nearest Hospital	0.44 Vaccination Index ⁵
	Communications Capacity		13.4% Households with Access to Fixed Phone Line	76.0% Households with Access to Mobile Phone			
	Transportation Capacity		44.0 km Average Distance to Nearest Port or Airport	0.55 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: 16 of 32 Provinces (Score: 0.501)

Sánchez Ramírez's score and ranking are due to moderate Vulnerability combined with very low Coping Capacity scores. Sánchez Ramírez ranks 19th in Vulnerability and 26th in Coping Capacity.

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



Environmental Capacity



Economic Capacity



Gender Inequality

Multi-Hazard Risk (MHR)

Multi-Hazard Risk⁷ Rank: 13 of 32 Provinces (Score: 0.530)

Sánchez Ramírez's score and ranking are due to moderate Multi-Hazard Exposure combined with moderate Vulnerability and very low Coping Capacity.

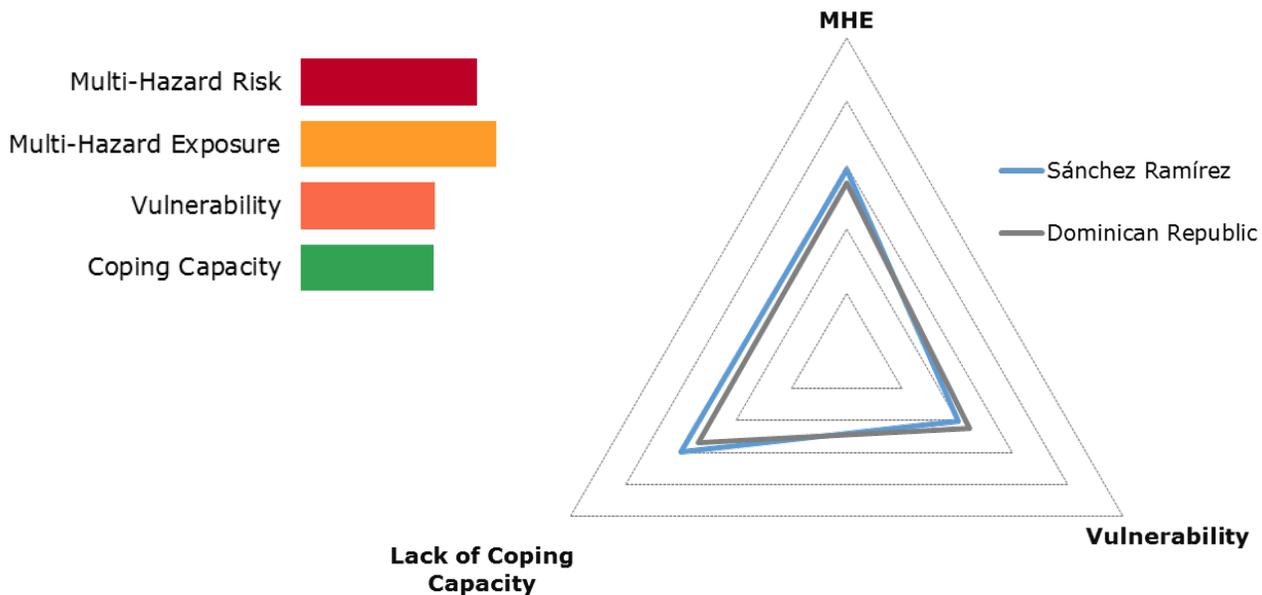


Figure 1. Province Multi-Hazard Risk Component Scores Compared to Overall Average Country Scores

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



Low vulnerable health status

Ranked 28 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 27 of 32 provinces, limited population change allows disaster managers to form accurate evacuation, sheltering, and resource plans.

Recommendations

01

Increase economic capacity

Encourage business development and education programs to increase economic opportunities in the region.

02

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 resilience and decrease vulnerability.

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.