Better solutions.
Fewer disasters.
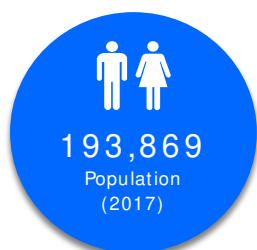Safer world.

PDC | GLOBAL

Peravia

Province: Peravia

Province Capital: Baní

Area: 875 km^2

Peravia is located in the south of the Dominican Republic, forming part of the Valdesia Region. Agriculture in the province is very diverse, with the main products being bananas, coffee, tomatoes, onions, rice and mango.

193,869 Population (2017)	**47.3%** Population in Poverty	**14.7%** Illiterate Population	**18.1** Infant Mortality Rate	**82.3%** Access to Improved Water

Municipality	Population
Bani	165,446
Nizao	28,423

Multi-Hazard Risk Rank:
Low (23 of 32)

Lack of Resilience Rank:
High (14 of 32)

BANÍ
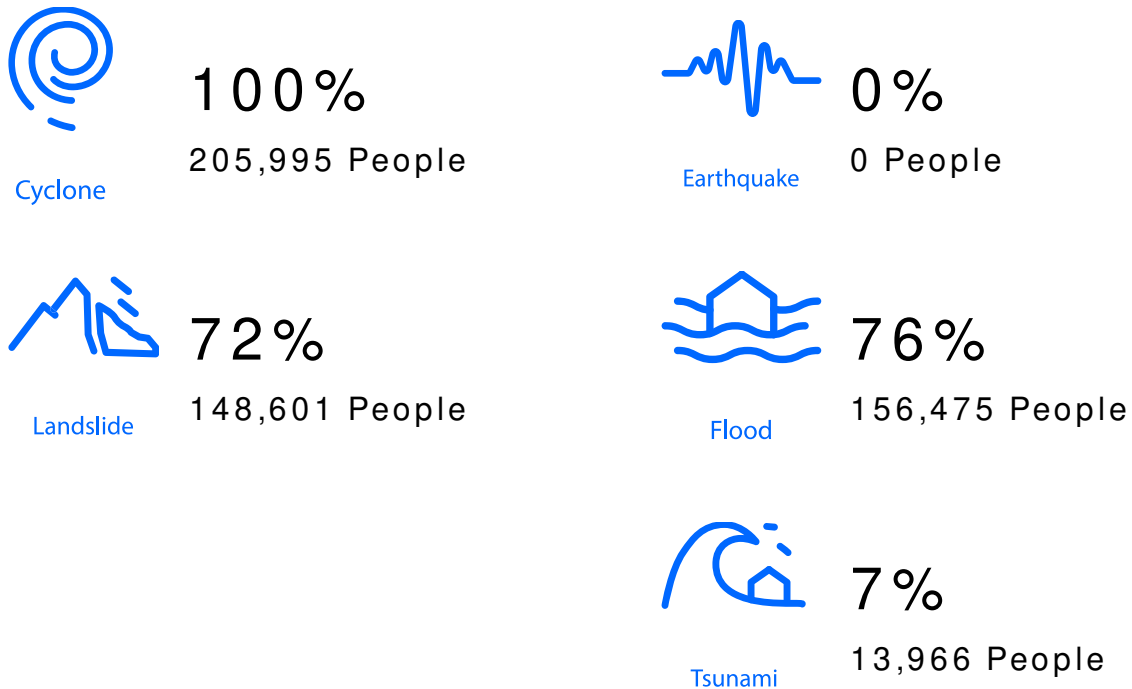
NIZAO

Kilometers
0   5   10

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	
Low		High		Low		High		Medium	
Score	Rank (of 32)	Score	Rank (of 32)	Score	Rank (of 32)	Score	Rank (of 32)	Score	Rank (of 32)
0.490	23	0.506	14	0.459	21	0.473	14	0.462	18

Multi-Hazard Exposure (MHE)

Multi-Hazard Exposure[1] Rank: 21 of 32 Provinces (Score: 0.459)

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

Cyclone
100%
205,995 People

Earthquake
0%
0 People

Landslide
72%
148,601 People

Flood
76%
156,475 People

Tsunami
7%
13,966 People

Case Study: Potable Water in Peravia

In January 2017, the Peravia Multiple Aqueduct Project was completed by ACCIONA Aqua in the province of Peravia. With the opening of the aqueduct, more than 138,000 people were able to be supplied with potable water in the southern Dominican Republic. This infrastructure development was a significant accomplishment for an area that struggled with access to quality water resources for more than four decades. The project is operating at full capacity and includes a Potable Water Treatment Station, with the potential to reach over 300,000 people in the near future.

"ACCIONA improves potable water supplies in the Dominican Republic with the opening of the Peravia aqueduct" - ACCIONA Agua, 03 January 2017

MHE 0.459
Raw MHE 0.464
Relative MHE 0.455

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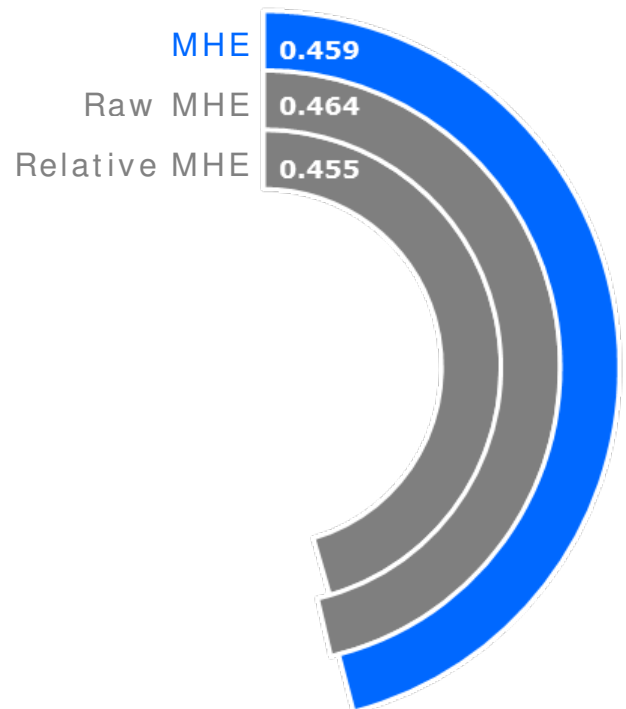
[1] Multi-Hazard Exposure: Average exposure of the population to hazards.

[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: 14 of 32 Provinces (Score: 0.473) Vulnerability in Peravia is influenced by Gender Inequality, Population Pressures, and Environmental Stress. The bar chart on the right indicates the socioeconomic themes contributing to the Province's overall Vulnerability score.
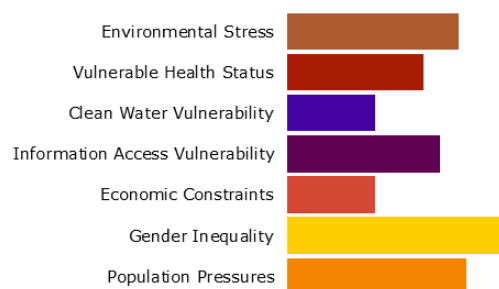

Table 3. Component Scores for each Vulnerability Sub-component

Environmental Stress	96.6% Province Susceptible to Drought	4.0% Average Annual Forest Change				
Vulnerable Health Status	18.1 Infant Mortality Rate	73.4 Maternal Mortality Rate	10.4 Chronic Malnutrition	9.1% Population Disabled		
Clean Water Vulnerability	17.7% Households without Access to Improved Water	6.0% Households without Access to Flush Toilets				
Information Access Vulnerability	14.7% Illiteracy	79.9% Primary School Enrollment	92.4% Households without Internet	18.2% Households without TV	51.1% Households without Radio	5.7 Average years of Schooling
Economic Constraints	59.3 Economic Dependency Ratio	47.3% Population in Poverty	25.0% CEP Beneficiaries			
Gender Inequality	34.9% Female Seats in Government	1.1 Female to Male Years of Schooling	0.50 Female to Male Labor Ratio			
Population Pressures	0.68% Average Annual Population Change	4.8% 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: 18 of 32 Provinces (Score: 0.462) The thematic areas with the weakest relative scores are Environmental Capacity and Governance. The bar chart on the right indicates the socioeconomic themes contributing to the province's overall Coping Capacity score.
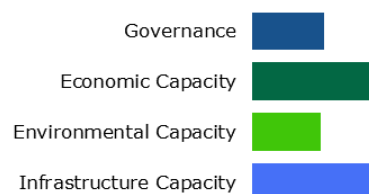
Governance	▇
Economic Capacity	▇▇▇
Environmental Capacity	▇
Infrastructure Capacity	▇▇▇

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

💲	Economic Capacity	0.92 Debt to Service Ratio	93.1% Employment Rate (Male)	RD$ 22,498 Average Annual Income per Capita		
🏛	Governance	70.1% Registered Voter Participation (2016 Election)	26.8 Homicide Rate per 100k persons	74.3% Households with Garbage Collection		
🌱	Environmental Capacity	20.8% Protected or Reforested Land				
🛣	Infrastructure Capacity					
🛏	Health Care Capacity	11.7 Hospital Beds per 10,000 Persons	13.4 Nurses per 10,000 Persons	12.9 Physicians per 10,000 Persons	2.5 km Average Distance to Nearest Hospital	0.81 Vaccination Index[5]
📡	Communications Capacity	22.1% Households with Access to Fixed Phone Line	74.4% Households with Access to Mobile Phone			
🚌	Transportation Capacity	15.4 km Average Distance to Nearest Port or Airport	0.63 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: 14 of 32 Provinces (Score: 0.506)

Peravia's score and ranking are due to moderate Vulnerability combined with moderate Coping Capacity scores. Peravia ranks 14th in Vulnerability and 18th in Coping Capacity.

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

Population Pressures

Environmental Capacity

Governance

Multi-Hazard Risk (MHR)

Multi-Hazard Risk[7] Rank: 23 of 32 Provinces (Score: 0.490)

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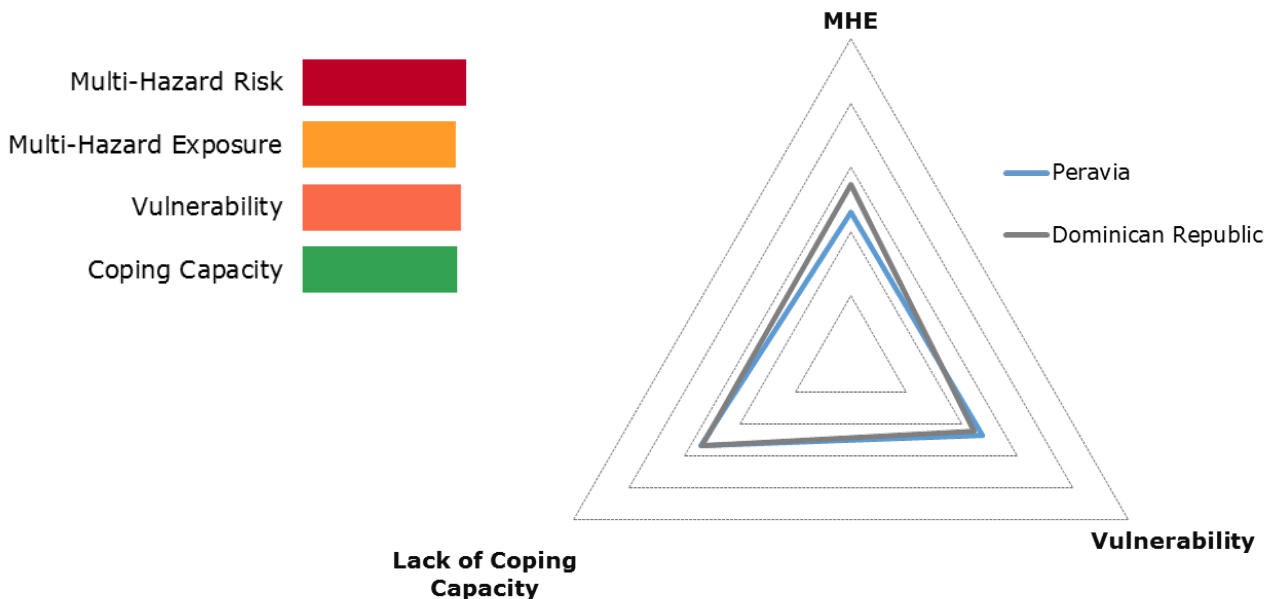

Figure 1. Province Multi-Hazard Risk Component Scores Compared to Overall Average Country Scores

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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

✓ ### Low economic constraints
Ranked 23 of 32 provinces, low economic constraints indicate that Peravia may be able to invest in additional mitigation and preparedness measures at the local and community level.

✓ ### High overall infrastructure capacity
Ranked 6 of 32 provinces, well developed infrastructure – communication, health care, transportation - facilitates the exchange of information, and physical distribution of goods and services to the population.

Recommendations

01 ### 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.

02 ### Reduce population pressure
Rapid population changes are difficult to plan for, and can destabilize social, economic, and environmental systems. Analyze trends in the province to determine potential population changes and increase the update frequency of plans and SOPS to accommodate the changes.

03 ### Increase governance
High crime rates result in low governance scores. Youth-education programs, increased law enforcement, and personal safety-education messages can decrease crime and increase coping capacity.