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Fewer disasters.  
Safer world.



# San José de Ocoa

Dominican Republic National Disaster Preparedness  
Baseline Assessment  
Province Profile

## Findings: Risk and Vulnerability Assessment (RVA)

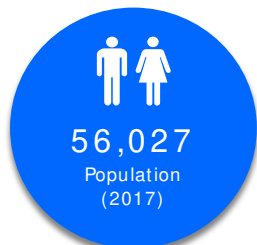
### Province: San José de Ocoa

Province Capital: San José de Ocoa

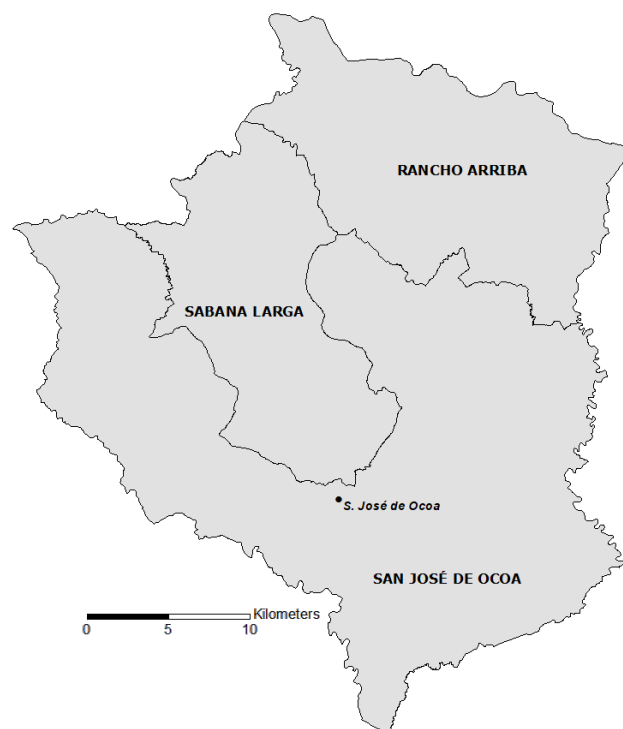


Area: 955 km<sup>2</sup>

Located in the southern foothills of the Cordillera Central (mountain), San José de Ocoa economy is fueled by forestry, fishing and agriculture including the production of coffee, potatoes, beans, carrots, cabbage, peanuts and avocados.



Municipality	Population
San José De Ocoa	37,114
Sabana Larga	9,214
Rancho Arriba	9,699



**Multi-Hazard Risk Rank:  
Very Low (32 of 32)**

**Lack of Resilience Rank:  
Medium (15 of 32)**

## RVA Component Scores

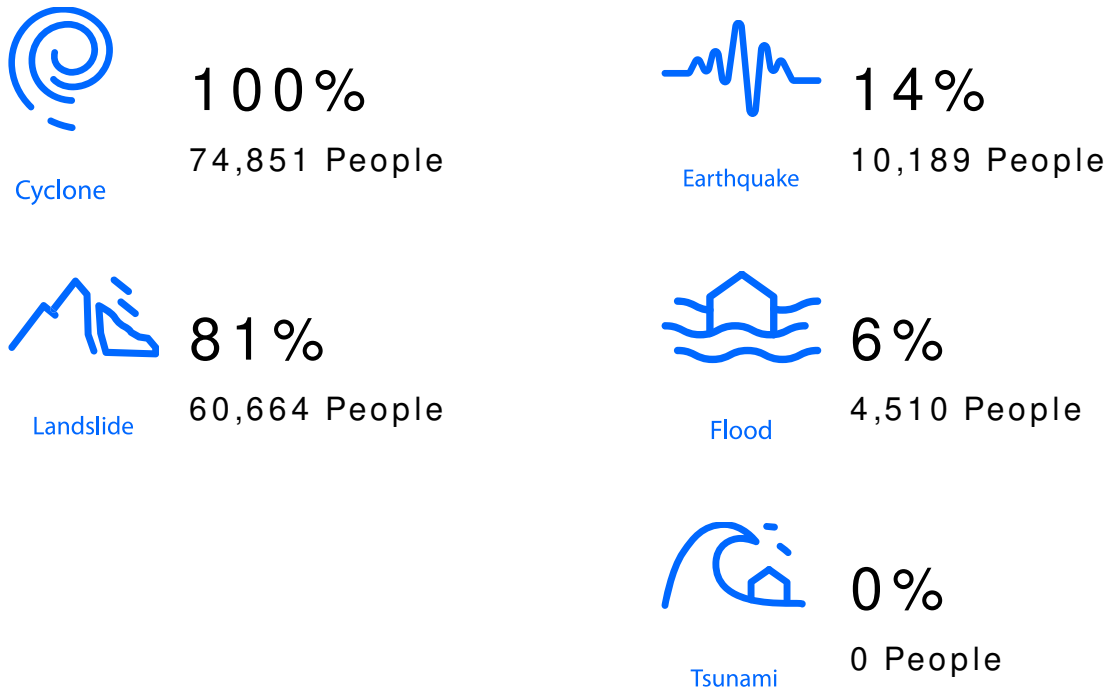
Table 1. Province Scores and Ranks (compared across Provinces) for each Index

Multi-Hazard Risk		Lack of Resilience		Multi-Hazard Exposure		Vulnerability		Coping Capacity	
Very Low		Medium		Very Low		High		Medium	
Score	Rank (of 32)	Score	Rank (of 32)	Score	Rank (of 32)	Score	Rank (of 32)	Score	Rank (of 32)
0.393	32	0.503	15	0.172	30	0.476	13	0.470	15

## Multi-Hazard Exposure (MHE)

Multi-Hazard Exposure<sup>1</sup> Rank: 30 of 32 Provinces (Score: 0.172)

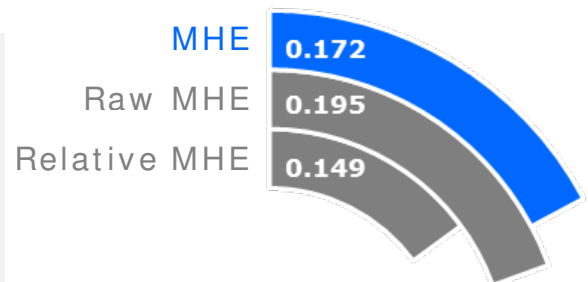
Table 2. Estimated ambient population<sup>2</sup> exposed to each hazard



### Case Study: Fog Collection in San José de Ocoa

In the mountain province of San José de Ocoa, rural communities frequently experience water shortages. To address this issue, various projects have explored the idea of fog collection and whether it could potentially “provide additional water to... rural villages.” In collaboration with Asociación para el Desarrollo de San José de Ocoa Inc. (ADESJO), fog collection has included needs analyses for “clean drinking water, especially in the dry winter season,” as well as “an examination of the local topography.” Projects have proven successful, demonstrating that fog collection can provide substantial water to rural communities, alongside rainwater collection and storage.

“Fog Collection Evaluation Project” - <http://www.fogquest.org/project-information/projects/dominican-republic/>



<sup>1</sup> Multi-Hazard Exposure: Average exposure of the population to hazards.

<sup>2</sup> 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)

Vulnerability<sup>3</sup> Rank: 13 of 32 Provinces (Score: 0.476) Vulnerability in San José de Ocoa is influenced by Gender Inequality, Information Access Vulnerability, and Vulnerable Health Status. The bar chart on the right indicates the socioeconomic themes contributing to the Province's overall Vulnerability score.

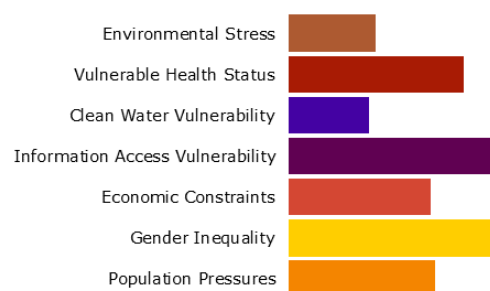









Table 3. Component Scores for each Vulnerability Sub-component

	<b>Environmental Stress</b>	<b>6.3%</b> Province Susceptible to Drought	<b>-1.4%</b> Average Annual Forest Change				
	<b>Vulnerable Health Status</b>	<b>17.6</b> Infant Mortality Rate	<b>97.8</b> Maternal Mortality Rate	<b>12.6</b> Chronic Malnutrition	<b>10.7%</b> Population Disabled		
	<b>Clean Water Vulnerability</b>	<b>9.6%</b> Households without Access to Improved Water	<b>9.4%</b> Households without Access to Flush Toilets				
	<b>Information Access Vulnerability</b>	<b>22.0%</b> Illiteracy	<b>89.0%</b> Primary School Enrollment	<b>96.5%</b> Households without Internet	<b>41.5%</b> Households without TV	<b>59.4%</b> Households without Radio	<b>5.4</b> Average years of Schooling
	<b>Economic Constraints</b>	<b>55.0</b> Economic Dependency Ratio	<b>59.3%</b> Population in Poverty	<b>42.1%</b> CEP Beneficiaries			
	<b>Gender Inequality</b>	<b>34.9%</b> Female Seats in Government	<b>1.1</b> Female to Male Years of Schooling	<b>0.53</b> Female to Male Labor Ratio			
	<b>Population Pressures</b>	<b>0.90%</b> Average Annual Population Change	<b>1.7%</b> Average Annual Urban Population Change				

<sup>3</sup> 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 Capacity<sup>4</sup> Rank: 15 of 32 Provinces (Score: 0.470) The thematic areas with the weakest relative scores are Economic Capacity and Infrastructure (Transportation and Communications). The bar chart on the right indicates the socioeconomic themes contributing to the province's overall Coping Capacity score.

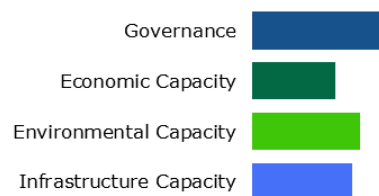


Table 4. Component Scores for each Coping Capacity Sub-component

	<b>Economic Capacity</b>	1.03 Debt to Service Ratio	92.0% Employment Rate (Male)	RD\$ 20,683 Average Annual Income per Capita			
	<b>Governance</b>	76.7% Registered Voter Participation (2016 Election)	17.3 Homicide Rate per 100k persons	69.8% Households with Garbage Collection			
	<b>Environmental Capacity</b>	32.8% Protected or Reforested Land					
	<b>Infrastructure Capacity</b>						
	<b>Health Care Capacity</b>		17.5 Hospital Beds per 10,000 Persons	22.2 Nurses per 10,000 Persons	19.8 Physicians per 10,000 Persons	3.4 km Average Distance to Nearest Hospital	0.79 Vaccination Index <sup>5</sup>
	<b>Communications Capacity</b>		8.6% Households with Access to Fixed Phone Line	69.1% Households with Access to Mobile Phone			
	<b>Transportation Capacity</b>		36.0 km Average Distance to Nearest Port or Airport	0.44 km Total Length of Road per km <sup>2</sup> (area)			

<sup>4</sup> Coping Capacity: The systems, means, and abilities of a country to absorb and respond to events that could potentially disrupt normal function.

<sup>5</sup> 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<sup>6</sup> Rank: 15 of 32 Provinces (Score: 0.503)

San José de Ocoa's score and ranking are due to moderate Vulnerability combined with moderate Coping Capacity scores. San José de Ocoa ranks 13th in Vulnerability and 15th in Coping Capacity.

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



Vulnerable Health Status



Transportation Infrastructure Capacity



Communications Infrastructure Capacity

## Multi-Hazard Risk (MHR)

Multi-Hazard Risk<sup>7</sup> Rank: 32 of 32 Provinces (Score: 0.393)

San José de Ocoa's score and ranking are due to very low Multi-Hazard Exposure combined with moderate Vulnerability and Coping Capacity.

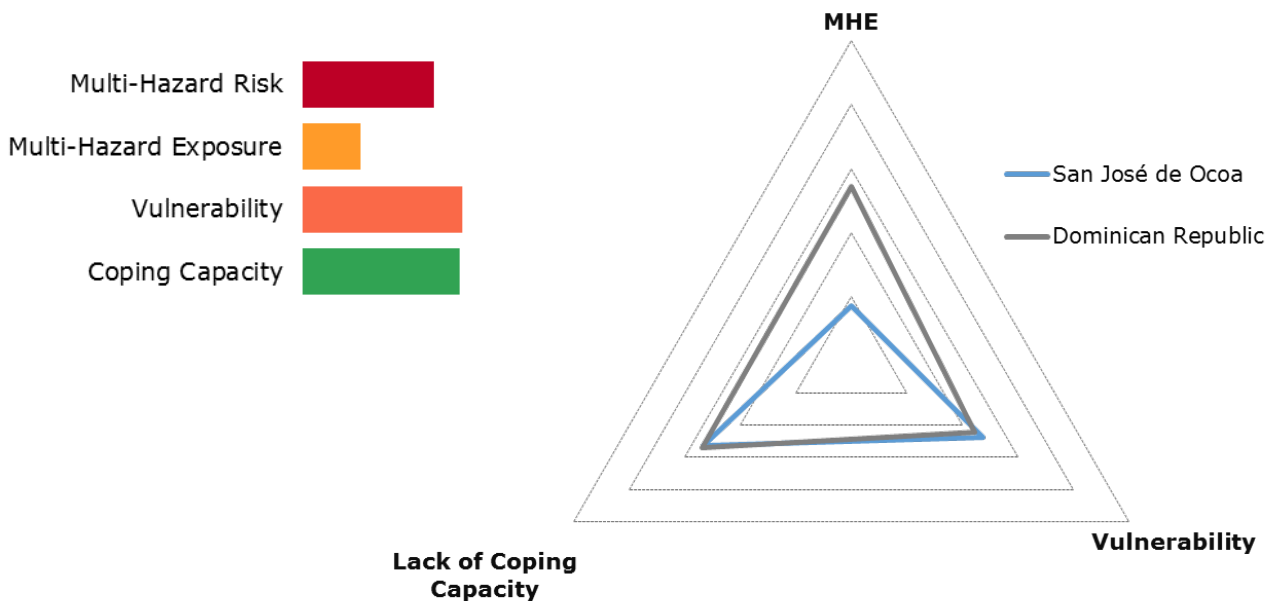


Figure 1. Province Multi-Hazard Risk Component Scores Compared to Overall Average Country Scores

<sup>6</sup> 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.

<sup>7</sup> 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 environmental capacity

Ranked 6 of 32 provinces, high environmental capacity indicates that natural resources and agriculture will be more resilient to the effects of a disaster and may recover faster.



### Lowest overall multi-hazard risk

Ranked 30<sup>th</sup> in Multi-Hazard Exposure, 13<sup>th</sup> in Vulnerability, and 15<sup>th</sup> in Coping Capacity. Low multi-hazard risk indicates a low susceptibility to impact and the ability to absorb, respond to, and recover from negative impacts that occur over the short term (Coping Capacity).



### High overall governance

Ranked 8 of 32 provinces, high governance could facilitate the implementation of disaster management initiatives into provincial and municipal communities.

## Recommendations

01

### Increase health education

Provide health-education services for the population, especially new mothers and other special needs populations.

02

### Invest in communication infrastructure

Invest in communication infrastructure to allow for easier access to information and education material, increasing literacy and situational awareness of the population.

03

### Invest in transportation infrastructure

Investing in transportation infrastructure will facilitate the distribution of goods and services before, during, and after a disaster event.