

Better solutions.
Fewer disasters.
Safer world.



Guatemala: Santa Rosa

Image: Google

National Disaster Preparedness Baseline Assessment –
Department Profile

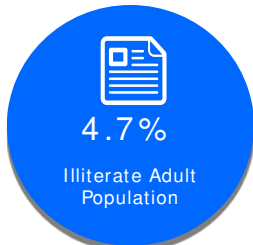
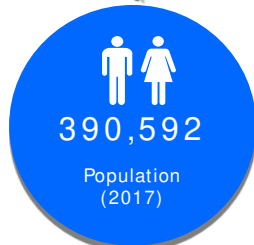
Department: Santa Rosa



Department Capital: Cuilapa

Area: 2,295 km²

Santa Rosa is in southern Guatemala, bordering the Pacific Ocean, and is characterized by a variety of climates. Agricultural products include livestock and coffee. The department is known for its cheeses and butters.



Municipality	Population
Chiquimulilla	51,564
Barberena	50,562
Cuilapa	48,147
Nueva Santa Rosa	34,588
Pueblo Nuevo Viñas	27,592
Oratorio	27,225
Casillas	26,504
Taxisco	23,827
Santa María Ixhuatán	22,483
Santa Rosa de Lima	20,201
Guazacapán	16,188
San Rafael Las Flores	15,627
Santa Cruz Naranjo	15,008
San Juan Tecuaco	11,078



Multi-Hazard Risk Rank:
Low (16 of 22)

Lack of Resilience Rank:
Low (16 of 22)

RVA Component Scores

Table 1. Department scores and ranks (compared across departments) for each index

Multi-Hazard Risk		Lack of Resilience		Multi-Hazard Exposure		Vulnerability		Coping Capacity	
Low		Low		Moderate		Very Low		Moderate	
Score	Rank (of 22)	Score	Rank (of 22)	Score	Rank (of 22)	Score	Rank (of 22)	Score	Rank (of 22)
0.469	16	0.492	16	0.425	14	0.397	19	0.414	13

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Multi-Hazard Exposure (MHE)

Multi-Hazard Exposure¹ Rank: 14 of 22 Departments (Score: 0.425)

Table 2. Estimated ambient population² exposed to each hazard



100%

393,688 People

Cyclone



100%

393,688 People

Earthquake



0%

0 People

Volcano



13%

50,329 People

Flood



2%

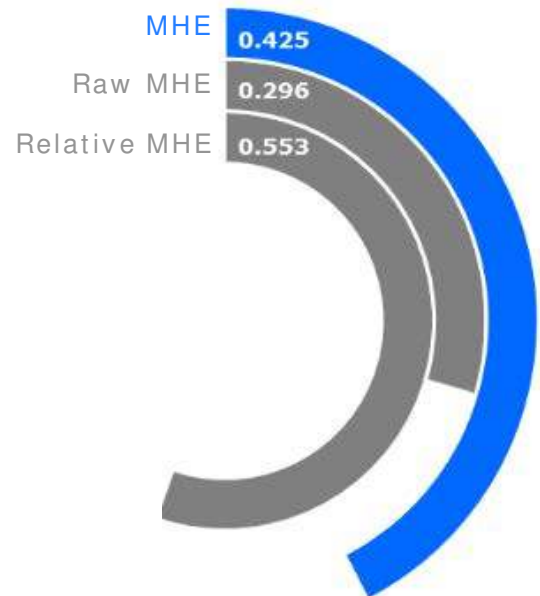
7,507 People

Landslide

A String of Disasters

In August and September 2011, Santa Rosa suffered a string of natural disasters devastating the region. Rainfall 40% above normal in August, according to INSIVUMEH, caused the San Juan River to overflow its banks and created avalanches and landslides cutting off villages and killing four residents. In September, six earthquakes struck Guatemala ranging from 4.5 to 5.8 magnitude on the Richter scale. The southeastern area of Santa Rosa was the most impacted by earthquakes, with almost 5,000 people affected and more than 1,200 houses damaged. CONRED set up nine refuge centers for 3,500 people.

<http://www.americasquarterly.org/node/2926>



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

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

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Vulnerability (V)

Vulnerability³ Rank: 19 of 22 Departments (Score: 0.397) Vulnerability in Santa Rosa is influenced by Clean Water Vulnerability and Economic Constraints. The bar chart on the right indicates the socioeconomic themes contributing to the department's overall Vulnerability score.

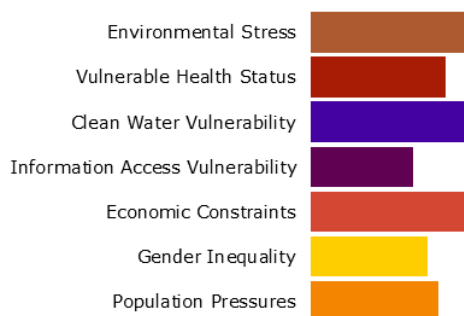









Table 3. Component scores for each Vulnerability sub-component

	Environmental Stress	26.4% Province at Drought Risk	-2.5% Annual Forest Change					
	Vulnerable Health Status	18 Infant Mortality Rate	46.2 Maternal Mortality Ratio	0.6% Acute Malnutrition	2.8% Population Disabled	12.0 TB Incidence	7.6 Dengue Prevalence	20.7 Malaria Prevalence
	Clean Water Vulnerability	69.0% Households with Access to Improved Water	64.8% Households with Access to Improved Sanitation					
	Information Access Vulnerability	4.7% Adult Illiteracy	5.4 Average Years of Schooling	87.3% Primary School Enrollment	3.3% Households with Internet	43.0% Households with Cable TV	80.3% Households with Radio	3.0% Speak Indigenous Language
	Economic Constraints	0.81 Economic Dependency Ratio	54.3% Population in Poverty	0.48 GINI Coefficient				
	Gender Inequality	33.3% Female Seats in Congress	0.02 Ratio of Female to Male Secondary Education Enrollment	0.21 Ratio of Female to Male Economic Activity				
	Population Pressures	1.8% Average Annual Population Change	0.1% Average Annual Urban Population Change	58.7% Food Insecurity				

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

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Coping Capacity (CC)

Coping Capacity⁴ Rank: 13 of 22 Departments (Score: 0.414) Santa Rosa displays a moderate level of Coping Capacity, which is attributable to low Governance and Environmental Capacity. The bar chart on the right indicates the socioeconomic themes contributing to the department's overall Coping Capacity score.

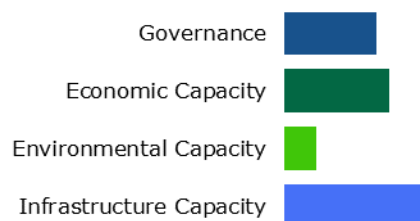









Table 4. Component scores for each Coping Capacity sub-component

	Governance	275.3 Crime Victims per 100K	20.6% Households with Garbage Collection			
	Economic Capacity	\$517.8 Remittances per Capita (USD)	10.7 Businesses per 1,000 Persons	11,760 GDP per Capita (Quetzales)		
	Environmental Capacity	3.0% Protected Land	0.5% Reforested Area			
	Infrastructure Capacity					
	Health Care Capacity	12.9 Hospital Beds per 10,000 Persons	6.1 Nurses per 10,000 Persons	6.5 Physicians per 10,000 Persons	25.2 km Average Distance to Nearest Hospital	85% Children Completed Immunization Schedule
	Communications Capacity	4.1% Households with Access to Fixed Phone Line	88.5% Households with Access to Mobile Phone	97.1% Households with Access to Electricity		
	Transportation Capacity	31.2 km Average Distance to Nearest Port or Airport	23.2 km Total Length of Road per 100 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.

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Lack of Resilience (LR)

Lack of Resilience⁵ Rank: 16 of 22 Departments (Score: 0.492)

Santa Rosa's score and ranking are due to very low Vulnerability combined with moderate Coping Capacity scores.

Table 5. The 3 thematic areas with the weakest relative scores



Clean Water
Vulnerability



Economic
Capacity



Economic
Constraints

Multi-Hazard Risk (MHR)

Multi-Hazard Risk⁶ Rank: 16 of 22 Departments (Score: 0.469)

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

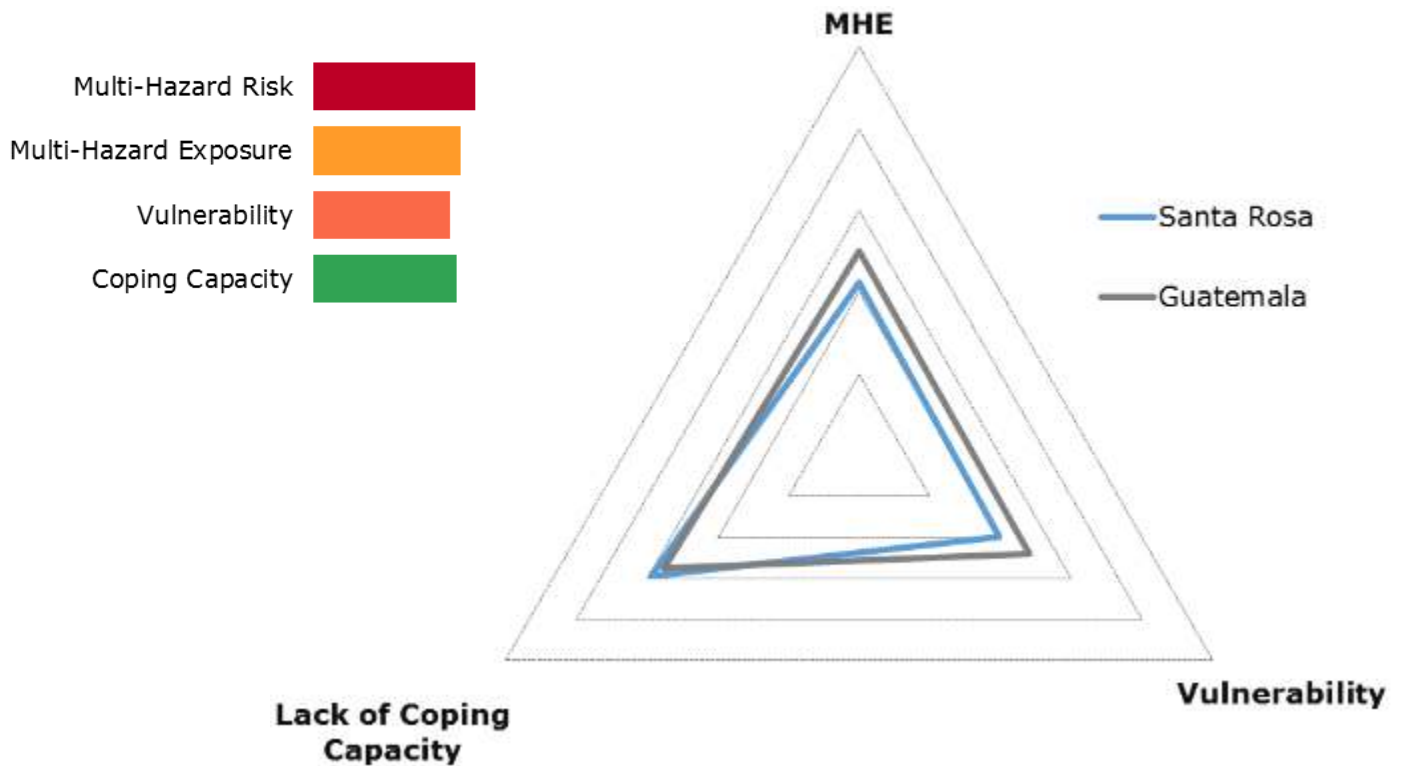


Figure 1. Department Multi-Hazard Risk component scores compared to overall average country scores

⁵ **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 socioeconomic conditions.

⁶ **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 gender inequality

Ranked 21 of 22 departments, low gender inequality indicates that vulnerable populations are more likely to have their needs met under 'normal' conditions and may be less susceptible during times of disaster.



High information access

High information access indicates that the population has an increased ability to access and comprehend disaster-related information before, during, and after events.



High health care capacity

Ranked 3 of 22 departments, high health care capacity indicates that the population will have access to healthcare services before, during, and after a disaster.

Recommendations

01

Provide business opportunities and education

Institute programs to provide independent economic opportunities in the department. Increased economic capacity will decrease vulnerability in emergencies.

02

Increase government water services

Investments in public water and sewer facilities will help to decrease vulnerability and increase access to clean water during a disaster.



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