

**Better solutions.
Fewer disasters.
Safer world.**



Guatemala: Jalapa

Image: Google

**National Disaster Preparedness Baseline Assessment –
Department Profile**

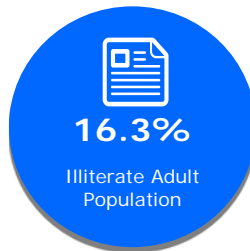
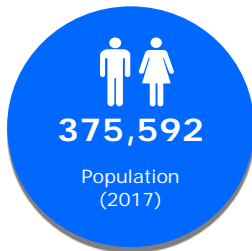
Department: Jalapa



Department Capital: Jalapa

Area: 2,064 km²

Jalapa is in southeastern Guatemala. The department is mountainous with fertile plains and valleys where they grow crops such as corn, black beans, rice, potatoes, yucca, chili, coffee, bananas, tobacco, sugar cane, and wheat.



Municipality

Municipality	Population
Jalapa	171,068
San Pedro Pinula	69,925
Mataquescuintla	48,885
San Luis Jilotepeque	27,931
Monjas	26,821
San Carlos Alzatate	21,411
San Manuel Chaparrón	9,550



Multi-Hazard Risk Rank: Medium (12 of 22)

Lack of Resilience Rank: High (5 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	
Medium		High		Low		High		Low	
Score	Rank (of 22)	Score	Rank (of 22)	Score	Rank (of 22)	Score	Rank (of 22)	Score	Rank (of 22)
0.523	12	0.588	5	0.392	17	0.572	6	0.396	17

Multi-Hazard Exposure (MHE)

Multi-Hazard Exposure¹ Rank: 17 of 22 Departments (Score: 0.392)

Table 2. Estimated ambient population² exposed to each hazard



98%

309,908 People

Cyclone



100%

316,523 People

Earthquake



0%

0 People

Volcano



9%

28,693 People

Flood



7%

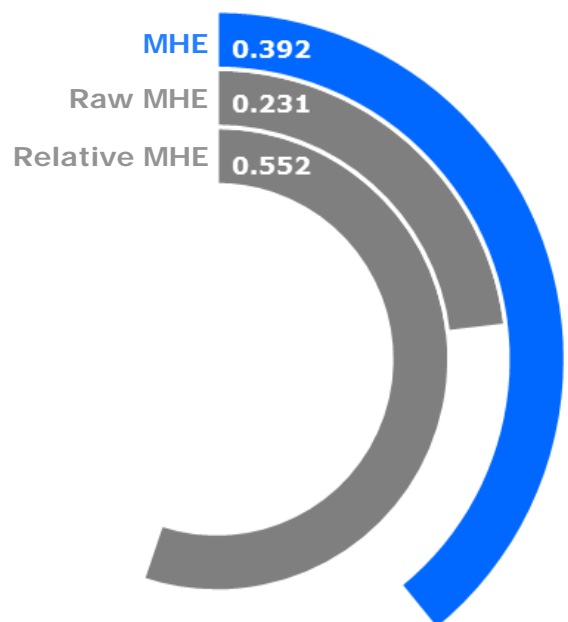
22,918 People

Landslide

Wells of Hope

Overcoming many roadblocks, hurdles, and frustrations, Wells of Hope successfully transported its own drilling equipment to Jalapa, one of the poorest regions of Guatemala. In this mountainous terrain, the women walk anywhere from 2 to 10 kilometers per day in search of water, carrying 20-liter buckets of dirty, bacteria-infested water over steep, mountainous terrain, to their mud-brick, one-room homes. This contaminated water, the only source of water available to these poor, mountain communities, causes the deaths of many children before age 3.

<http://www.wellsofhope.com/>



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.

Vulnerability (V)

Vulnerability³ Rank: 6 of 22 Departments (Score: 0.572) Vulnerability in Jalapa is primarily driven by Economic Constraints and Gender Inequality. The bar chart on the right indicates the socioeconomic themes contributing to the department's overall Vulnerability score.

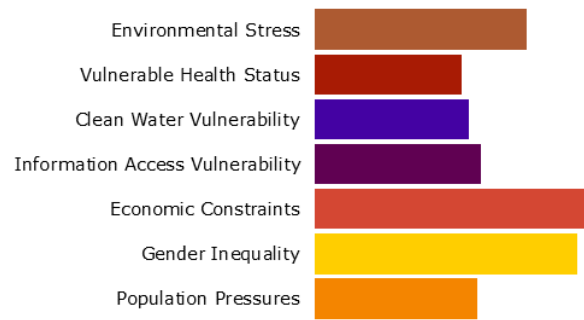









Table 3. Component scores for each Vulnerability sub-component

	Environmental Stress	75.6% Province at Drought Risk	-0.86% Annual Forest Change					
	Vulnerable Health Status	34 Infant Mortality Rate	45.2 Maternal Mortality Ratio	0.6% Acute Malnutrition	3.6% Population Disabled	4.6 TB Incidence	9.0 Dengue Prevalence	22.3 Malaria Prevalence
	Clean Water Vulnerability	80.4% Households with Access to Improved Water	50.1% Households with Access to Improved Sanitation					
	Information Access Vulnerability	16.3% Adult Illiteracy	4.5 Average Years of Schooling	76.5% Primary School Enrollment	6.8% Households with Internet	40.7% Households with Cable TV	77.6% Households with Radio	0.1% Speak Indigenous Language
	Economic Constraints	0.97 Economic Dependency Ratio	67.2% Population in Poverty	0.58 GINI Coefficient				
	Gender Inequality	0.0% Female Seats in Congress	0.05 Ratio of Female to Male Secondary Education Enrollment	0.35 Ratio of Female to Male Economic Activity				
	Population Pressures	3.5% Average Annual Population Change	3.6% Average Annual Urban Population Change	39.9% Food Insecurity				

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

Coping Capacity (CC)

Coping Capacity⁴ Rank: 17 of 22 Departments (Score: 0.396) Jalapa displays a low level of Coping Capacity, which is attributable to very low Environmental Capacity and Governance. The bar chart on the right indicates the socioeconomic themes contributing to the department's overall Coping Capacity score.

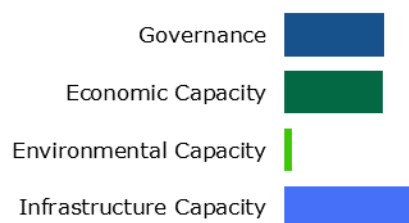


Table 4. Component scores for each Coping Capacity sub-component

	Governance	207.2 Crime Victims per 100K	19.5% Households with Garbage Collection				
	Economic Capacity	\$470.1 Remittances per Capita (USD)	11.97 Businesses per 1,000 persons	10,708 GDP per Capita (Quetzales)			
	Environmental Capacity	1.0% Protected Land	0.6% Reforested Area				
	Infrastructure Capacity						
	Health Care Capacity	9.2 Hospital Beds per 10,000 Persons	1.4 Nurses per 10,000 Persons	2.4 Physicians per 10,000 Persons	18.2 Km Average Distance to Nearest Hospital	93.4% Children Completed Immunization Schedule	
	Communications Capacity	6.8% Households with Access to Fixed Phone Line	80.8% Households with Access to Mobile Phone	88.3% Households with Access to Electricity			
	Transportation Capacity	44.9 km Average Distance to Nearest Port or Airport	31.5 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.

Lack of Resilience (LR)

Lack of Resilience⁵ Rank: 5 of 22 Departments (Score: 0.588)

Jalapa's score and ranking are due to high Vulnerability combined with low Coping Capacity scores.

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



Gender Inequality



Economic Constraints



Environmental Capacity

Multi-Hazard Risk (MHR)

Multi-Hazard Risk⁶ Rank: 12 of 22 Departments (Score: 0.523)

Jalapa's score and ranking are low Multi-Hazard Exposure combined with high Vulnerability and low Coping Capacity scores.

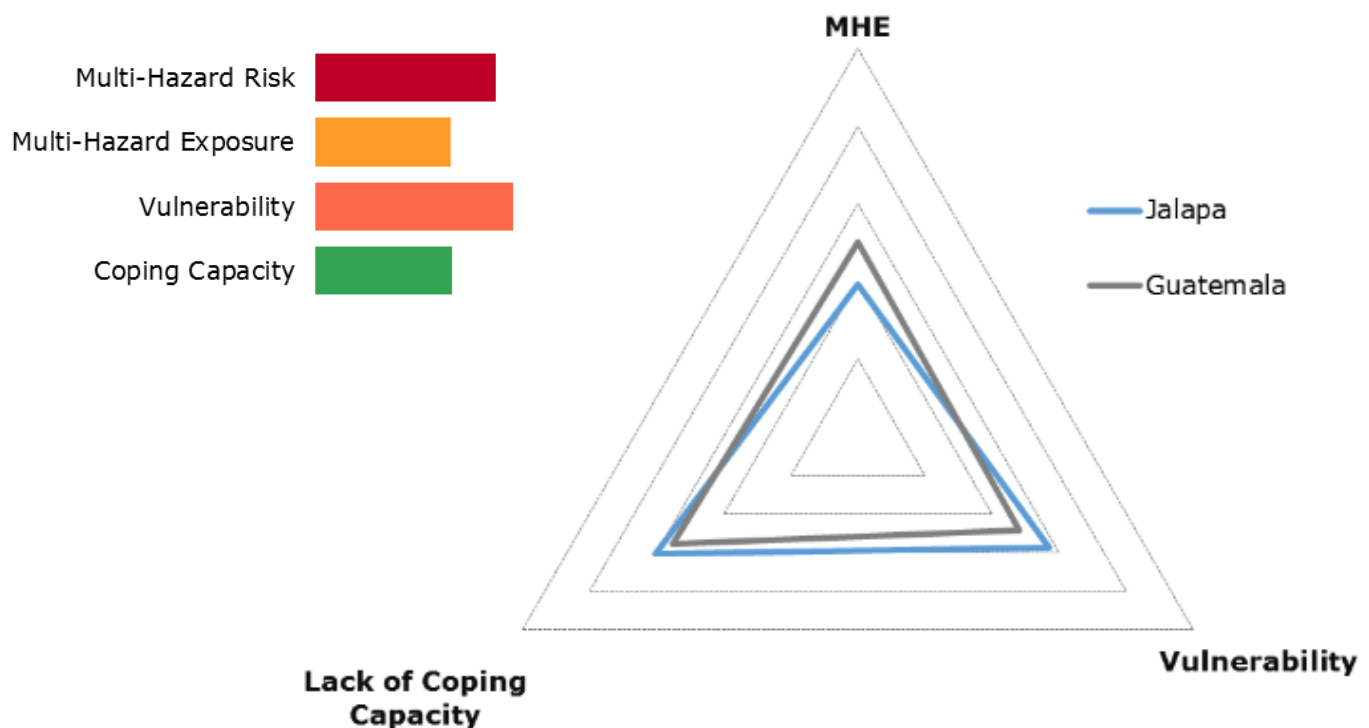


Figure 1. Department Multi-Hazard Risk component scores compared to overall average country scores

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



High transportation capacity

Ranked 3 of 22 departments, well developed transportation networks facilitate the movement of goods and services, decreasing wait times for response and relief supplies.



Low vulnerable health status

Ranked 15 of 22 departments, low health vulnerability could indicate a population that will be more resilient to the negative health impacts associated with major disaster events.

Recommendations

01

Provide opportunities for women

Public education and awareness programs that focus on increasing the role of women in the workplace will increase the resilience of vulnerable populations.

02

Provide budgeting and financial education

Increase community education in budgeting and finance to promote economic independence and opportunities, reducing economic constraints.

03

Increase environmental programs

While environmental programs are not weighted heavily in the analysis, an increased emphasis on land preservation, reforestation, and drought-resistant farming can decrease vulnerability and increase coping capacity.



Better solutions.
Fewer disasters.
Safer world.

NDPBA Guatemala Report
1305 N. Holocono Street, Suite 2
Kihei, Hawaii, 96753
Phone: (808) 891-0525 | Fax: (808) 891-0526
ndpba@pdc.org | www.pdc.org

© 2018 Pacific Disaster Center