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# Guatemala: Chimaltenango

National Disaster Preparedness Baseline Assessment –  
Department Profile

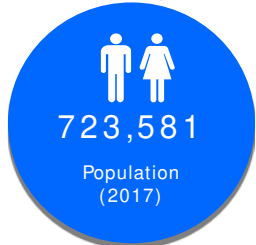
Department: Chimaltenango



Department Capital: Chimaltenango

Area: 1,979 km<sup>2</sup>

Chimaltenango is located in central Guatemala, immediately to the west of the departments of Sacatepéquez and Guatemala. The municipality of Tecpán in Chimaltenango is called the 'first capital of Guatemala,' as the first permanent Spanish colonial military center of the nation.



Municipality	Population
Chimaltenango	152,919
Tecpán Guatemala	98,856
San Martín Jilotepeque	83,956
Patzún	58,106
Comalapa	47,104
Patzicía	39,645
San Andrés Itzapa	38,686
Yepocapa	36,126
El Tejar	30,176
Zaragoza	28,959
San José Poaquil	26,244
Acatenango	24,310
Parramos	19,323
Santa Apolonia	18,487
Pochuta	12,055
Santa Cruz Balanyá	8,627



Multi-Hazard Risk Rank:  
Very High (3 of 22)

Lack of Resilience Rank:  
Very Low (11 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	
Very High		Moderate		Very High		Moderate		Moderate	
Score	Rank (of 22)	Score	Rank (of 22)	Score	Rank (of 22)	Score	Rank (of 22)	Score	Rank (of 22)
0.586	3	0.518	11	0.722	2	0.441	13	0.405	14

## NDPBA Guatemala Report: Department Profile

### Multi-Hazard Exposure (MHE)

Multi-Hazard Exposure<sup>1</sup> Rank: 2 of 22 Departments (Score: 0.722)

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



100%

580,970 People

Cyclone



100%

580,970 People

Earthquake



100%

580,970 People

Volcano



1%

3,004 People

Flood



10%

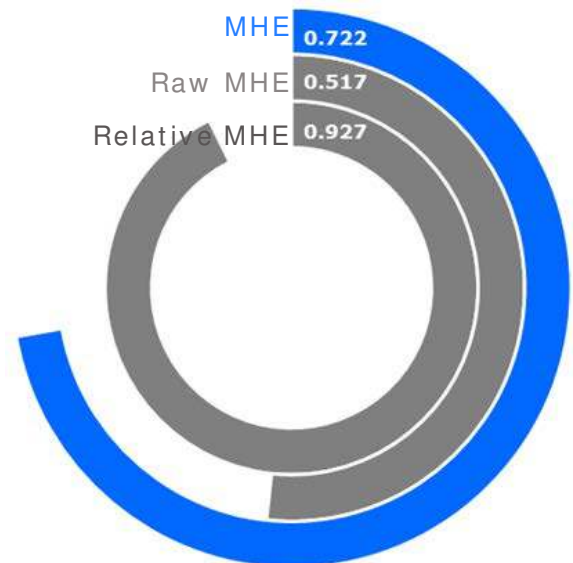
56,867 People

Landslide

#### Pounds of Prevention

“After hurricanes Stan in 2005 and Mitch in 1998, USAID and its partners began a program to train staff to serve as liaisons to government officials, oversee risk-reduction projects, manage emergency shelters, coordinate with local police and fire departments, and plug into the wider national emergency-response system to ensure the effectiveness of all related investments. The municipal risk-management office coordinates the activities of 27 local disaster-management committees, one in each participating village in Tecpán. This knowledge and training helped save lives in May 2010 when Tropical Storm Agatha’s rains caused a landslide in the village of Giralda. Fortunately, no fatalities occurred because one active program participant heeded warning signs and evacuated his neighbors away from the steep slopes of the village in advance of the storm.”

USAID: *Pounds of Prevention – A Disaster Risk Reduction Story*



<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 department. Ambient population typically differs from census population.

## NDPBA Guatemala Report: Department Profile

### Vulnerability (V)

Vulnerability<sup>3</sup> Rank: 13 of 22 Departments (Score: 0.441) Vulnerability in Chimaltenango is primarily driven by Information Access Vulnerability and Economic Constraints. The bar chart on the right indicates the socioeconomic themes contributing to the department's overall Vulnerability score.

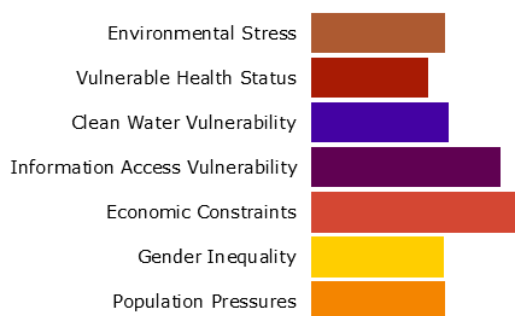









Table 3. Component scores for each Vulnerability sub-component

	<b>Environmental Stress</b>	47.2% Province at Drought Risk	4.41% Annual Forest Change					
	<b>Vulnerable Health Status</b>	38 Infant Mortality Rate	94.1 Maternal Mortality Ratio	0.4% Acute Malnutrition	1.9% Population Disabled	3.0 TB Incidence	3.6 Dengue Prevalence	11.6 Malaria Prevalence
	<b>Clean Water Vulnerability</b>	78.4% Households with Access to Improved Water	59.2% Households with Access to Improved Sanitation					
	<b>Information Access Vulnerability</b>	10.3% Adult Illiteracy	5.7 Average Years of Schooling	72.3% Primary School Enrollment	5.7% Households with Internet	32.0% Households with Cable TV	87.0% Households with Radio	78.4% Speak Indigenous Language
	<b>Economic Constraints</b>	0.91 Economic Dependency Ratio	66.1% Population in Poverty	0.51 GINI Coefficient				
	<b>Gender Inequality</b>	20.0% Female Seats in Congress	0.06 Ratio of Female to Male Secondary Education Enrollment	0.10 Ratio of Female to Male Economic Activity				
	<b>Population Pressures</b>	4.1% Average Annual Population Change	2.2% Average Annual Urban Population Change	33.2% Food Insecurity				

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

## NDPBA Guatemala Report: Department Profile

### Coping Capacity (CC)

Coping Capacity<sup>4</sup> Rank: 14 of 22 Departments (Score: 0.405) Chimaltenango displays a medium level of Coping Capacity, which is attributable to low Economic Capacity and Healthcare Infrastructure. The bar chart on the right indicates the socioeconomic themes contributing to the department's overall Coping Capacity score.

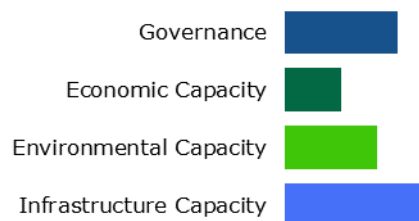


Table 4. Component scores for each Coping Capacity sub-component

	<b>Governance</b>	165.1 Crime Victims per 100K	17.0% Households with Garbage Collection			
	<b>Economic Capacity</b>	\$210.9 Remittances per Capita (USD)	11.2 Businesses per 1,000 persons	8,949.8 GDP per Capita (Quetzales)		
	<b>Environmental Capacity</b>	10.6% Protected Land	1.4% Reforested Area			
	<b>Infrastructure Capacity</b>					
	<b>Health Care Capacity</b>	2.6 Hospital Beds per 10,000 Persons	1.8 Nurses per 10,000 Persons	2.3 Physicians per 10,000 Persons	13.5 km Average Distance to Nearest Hospital	90.2% Children Completed Immunization Schedule
	<b>Communications Capacity</b>	7.1% Households with Access to Fixed Phone Line	81.3% Households with Access to Mobile Phone	98.5% Households with Access to Electricity		
	<b>Transportation Capacity</b>	32.0 km Average Distance to Nearest Port or Airport	52.4 km Total Length of Road per 100 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.

## NDPBA Guatemala Report: Department Profile

### Lack of Resilience (LR)

Lack of Resilience<sup>5</sup> Rank: 11 of 22 Departments (Score: 0.518)

Chimaltenango's score and ranking are due to moderate Vulnerability and Coping Capacity scores.

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



Health Care  
Capacity



Economic  
Capacity



Economic  
Constraints

### Multi-Hazard Risk (MHR)

Multi-Hazard Risk<sup>6</sup> Rank: 3 of 22 Departments (Score: 0.586)

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

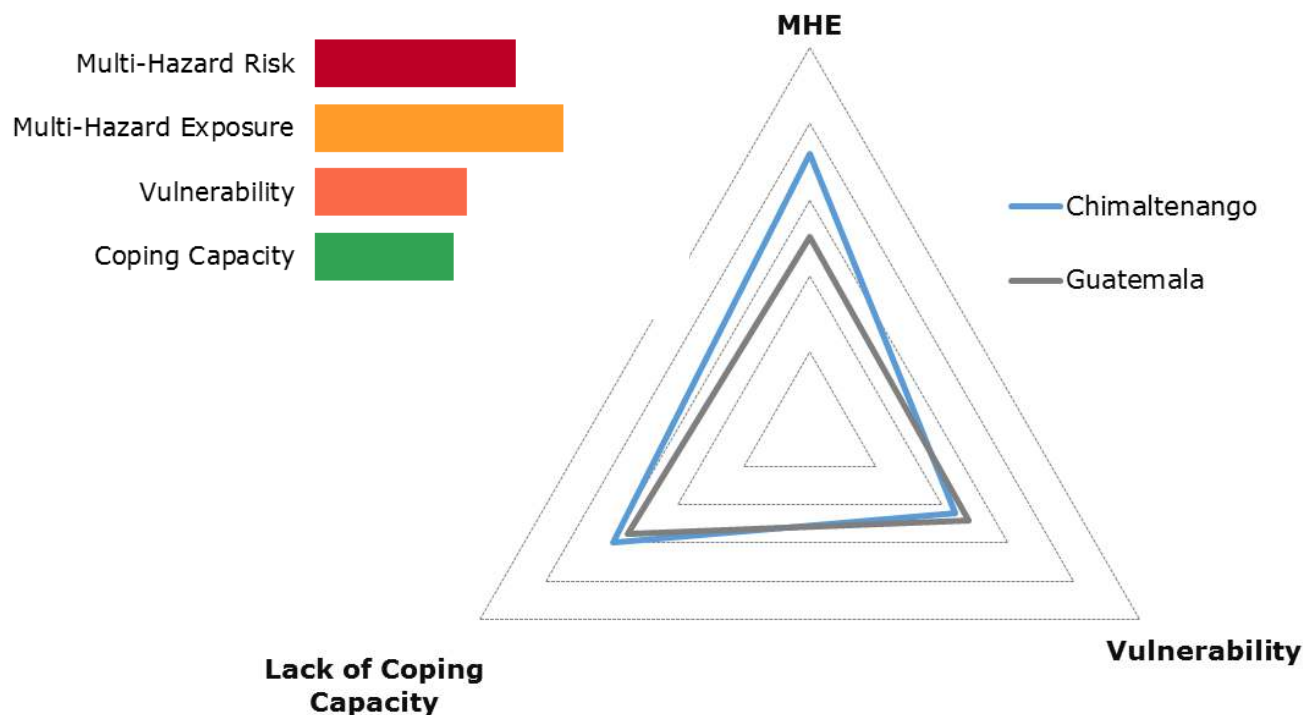


Figure 1. Department Multi-Hazard Risk component scores compared to overall average country scores

<sup>5</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 socioeconomic conditions.

<sup>6</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



### Low vulnerable health status

Ranked 20 of 22 departments, low health vulnerability indicates a population that will be more resilient to the negative health impacts associated with major disaster events.



### Low gender inequality

Ranked 18 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 transportation capacity

Ranked 1 of 22 departments, well developed transportation networks facilitate the movement of goods and services, decreasing wait times for response and relief supplies.

## Recommendations

01

### Increase economic capacity

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

02

### Increase health care availability

Increase clinics and medical personnel through incentivized programs and investments to increase the health resilience of the population.



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