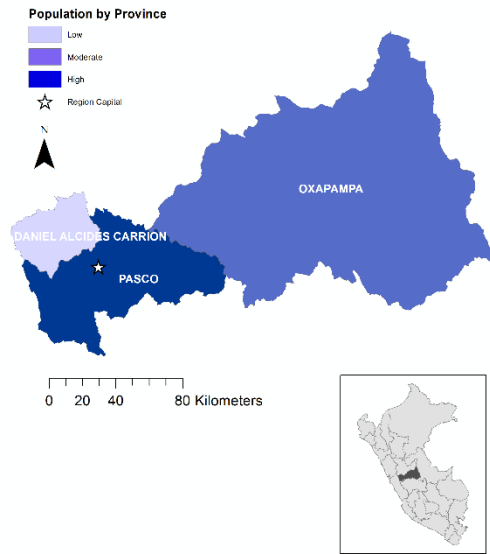




Peru: Regional Profiles

National Disaster Preparedness Baseline Assessment

Region: Pasco



Region Capital: Cerro de Pasco
 Region Area: 24,858 km²

Pasco is one of twenty-five regions in Peru. Located in central Peru, Pasco is east of Lima in the rugged highlands of the Cordilleras. Mining is the predominate economic activity. Cerro de Pasco is the region’s capital, and the highest city in Peru at 14,200 feet. As of 2015, the region’s population was estimated at 304,158; with the highest percentage of its population residing in the province of Pasco. Relative to the rest of Peru, the population of Pasco has lower than average life expectancy (71.4 years) and access to improved water (65.9%). Additionally, while Pasco has lower than average illiteracy (6.3%), poverty (46.6%) remains higher than the national average.



Multi-Hazard Risk (MHR) ¹

Score = 0.456, Rank = 15 of 25

Of the twenty-five regions of Peru, Pasco ranks 15th in multi-hazard risk (MHR = 0.456). Table 1 outlines the individual components that contribute to risk. As shown, Pasco’s moderate multi-hazard risk is a function of its low multi-hazard exposure (MHE = 0.399), high vulnerability (V = 0.498), and high coping capacity (CC = 0.528). The ternary graph at right shows that Pasco’s exposure is somewhat lower than the national average, vulnerability is slightly higher, and lack of coping capacity very close to the national average.

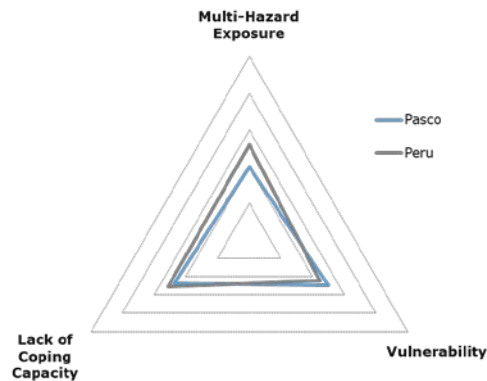
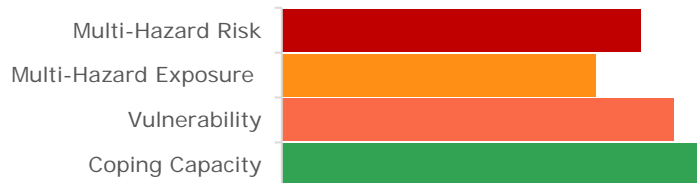


Figure 1. Components of the Multi-Hazard Risk Score compared to the national average.

¹ **Multi-Hazard Risk:** The likelihood of losses or disruptions to a region’s normal function due to interaction between multi-hazard exposure, socioeconomic vulnerability and coping capacity.

Components of Multi-Hazard Risk (MHR) ²

Table 1. Scores and ranks for each component of the Multi-Hazard Risk Score.

Multi-Hazard Exposure (MHE)		Vulnerability (V)		Coping Capacity (CC)	
Low		High		High	
Score	Rank (of 25)	Score	Rank (of 25)	Score	Rank (of 25)
0.399	19	0.498	8	0.528	8

Multi-Hazard Exposure (MHE) ³

Score = 0.399, Rank = 19 of 25

Pasco has low multi-hazard exposure relative to other regions of Peru (MHE = 0.399). Percentages of the region’s population exposed to varying hazards are summarized below.

Table 2. Estimated ambient population⁴ exposed to each hazard type.

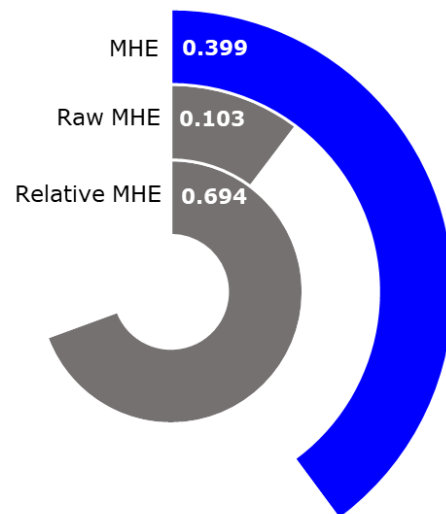
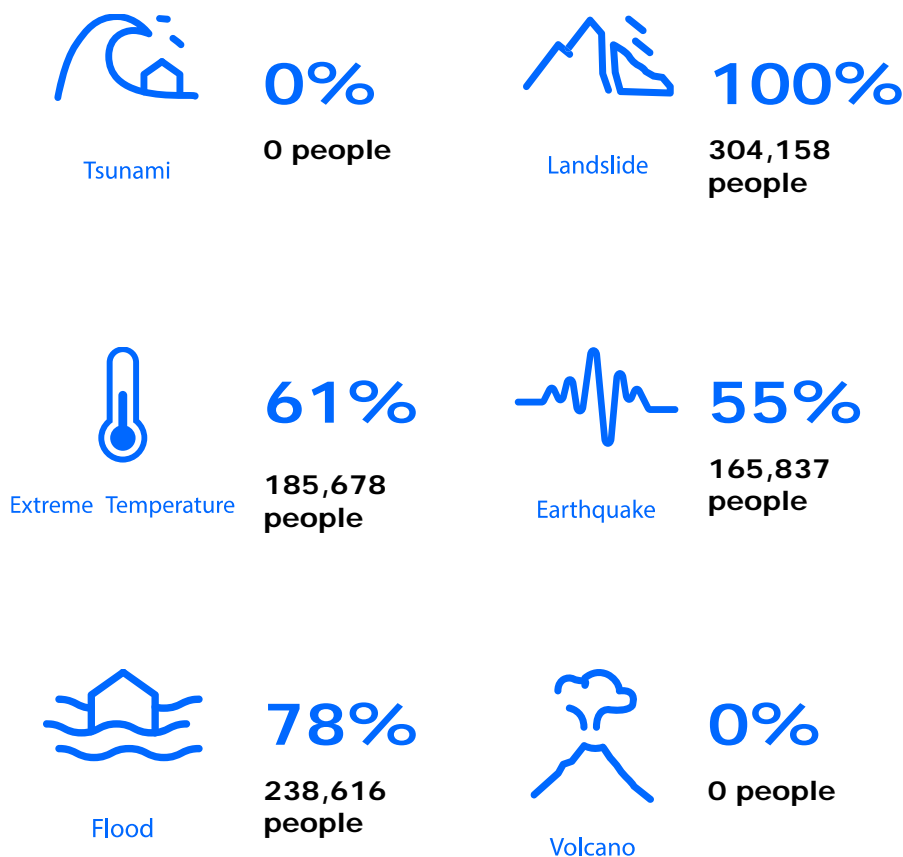


Figure 2. Average, raw and relative Multi-Hazard Exposure Scores.

² $MHR = (MHE + V + (1-CC))/3$.

³ **Multi-Hazard Exposure:** Average exposure of the population to hazards.

⁴ **Ambient Population:** 24-hour average estimate of the population; typically differs from census population.

Vulnerability (V) ⁵

Score = 0.498, Rank = 8 of 25

Pasco has high vulnerability relative to other Peruvian regions (V = 0.498). The bar chart on the right displays the composition of its overall Vulnerability Score. As shown, vulnerability in Pasco is driven primarily by clean water access, gender inequality, and information access. The table below summarizes the individual indicators within each socio-economic theme.

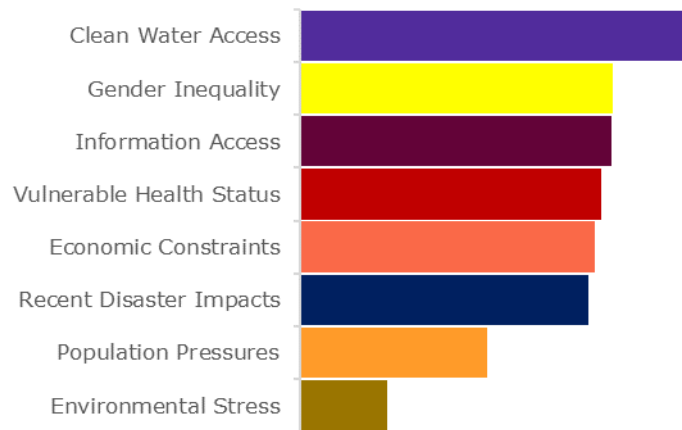








Figure 3. Components of the Vulnerability Score by relative contribution.

Table 3. Indicators of vulnerability grouped by theme.

	Environmental Stress	0.1 % of total regional area with irrigation-fed agriculture	2.6 % of total regional area with severe erosion				
	Vulnerable Health Status	21.0 Infant mortality rate per 1k births	70.0 Maternal deaths per 100k births	71.4 Average life expectancy (years) at birth	26.5 % of children under 5 years of age that are malnourished	4.9 % of population with 1 or more disability	
	Clean Water Vulnerability	65.9 % households with access to improved water	48.9 % households with access to flush toilets				
	Information Access Vulnerability	6.3 % of population 15yrs and older that are illiterate	9.4 Average years of schooling	63.1 % primary school enrollment	5.0 % households with internet	75.5 % households with television	82.0 % households with radio
	Economic Constraints	0.58 Ratio of dependents to working age population (15-64 years)	49.30 Ratio of average monthly household expenses to income	46.6 % of population monetarily impoverished			
	Gender Inequality	0.47 Proportion of female representatives in local government	0.73 Ratio of female to male secondary enrollment	0.78 Ratio of female to male labor participation			

⁵ **Vulnerability:** The socioeconomic conditions that are associated with susceptibility to disruptions in a region's normal functions.



Population Pressures

0.8
% Average annual population change (2010-2015)



Recent Disaster Impacts

994.1
Average annual hazard-related deaths per 10k persons (2010-2014)

2.1
Average annual number of homes destroyed by recent hazards per 10k persons (2010-2014)

Coping Capacity (CC) ⁶

Score = 0.528, Rank = 8 of 25

Pasco has a high coping capacity relative to other regions (CC = 0.528). The bar chart on the right displays the composition of its overall Coping Capacity Score. As shown, coping capacity in Pasco is hindered primarily by its economic and infrastructure (especially communications) capacities. The table below summarizes the individual indicators within each socio-economic theme.

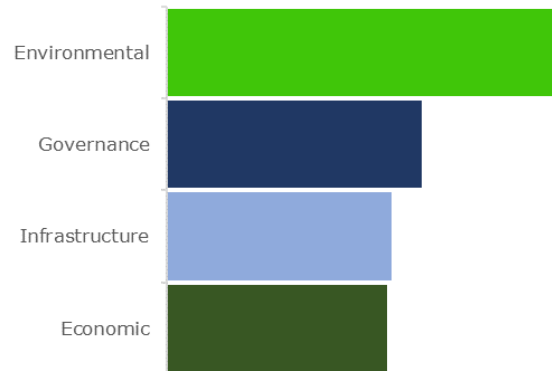


Figure 4. Components of the Coping Capacity Score by relative contribution.

Table 4. Indicators of coping capacity grouped by theme.



Economic Capacity

\$866
Average monthly income (\$)

\$18,458
Gross domestic product per capita



Governance

0.30
Registered cases of sexual violence per 10k persons

0.13
Registered cases of missing persons per 10k persons

0.021
Average annual number of social conflicts per 10k persons (active and resolved)

6,070
of voters per 10k persons (2014 election)



Environmental Capacity

26.6
% protected or reforested land

⁶ **Coping Capacity:** The systems, means and abilities of a region to absorb and respond to events that could potentially disrupt normal function.



Infrastructure Capacity

	Healthcare Capacity	20.9 # of hospital beds per 10k persons	22.6 # of nurses per 10k persons	6.9 # of physicians per 10k persons
	Communications Capacity	2.7 % households with fixed phone line	82.8 % households with mobile phone	
	Transportation Capacity	4.4 Port/airport density per 10,000 sq km	1,238.7 Road/rail density per 10,000 sq km	

Resilience (R) ⁷

Score = 0.515, Rank = 15 of 25

Resilience is a function of both vulnerability and coping capacity. Pasco’s resilience is comparable to the national average, and its moderate Resilience Score (R = 0.515) is due to its high vulnerability and high coping capacity. The region’s baseline indicators suggest a focus for resilience-building efforts. In Pasco, the thematic areas with the weakest relative scores are summarized in the table below. Readers can additionally consult Appendix 1 for a comprehensive assessment of its need for specific program types relative to other regions.

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



Vulnerable Health Status



Clean Water Access



Communications Capacity

⁷ **Resilience** is a hazard-independent look at current socio-economic conditions affecting the short-term ability to absorb, respond to, and recover from disruptions to a region’s normal function.