

Better solutions.
Fewer disasters.
Safer world.



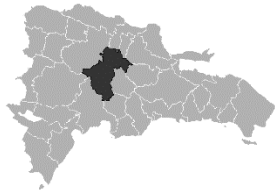
La Vega

Dominican Republic National Disaster Preparedness
Baseline Assessment
Province Profile

Findings: Risk and Vulnerability Assessment (RVA)

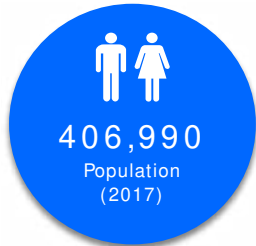
Province: La Vega

Province Capital: La Vega

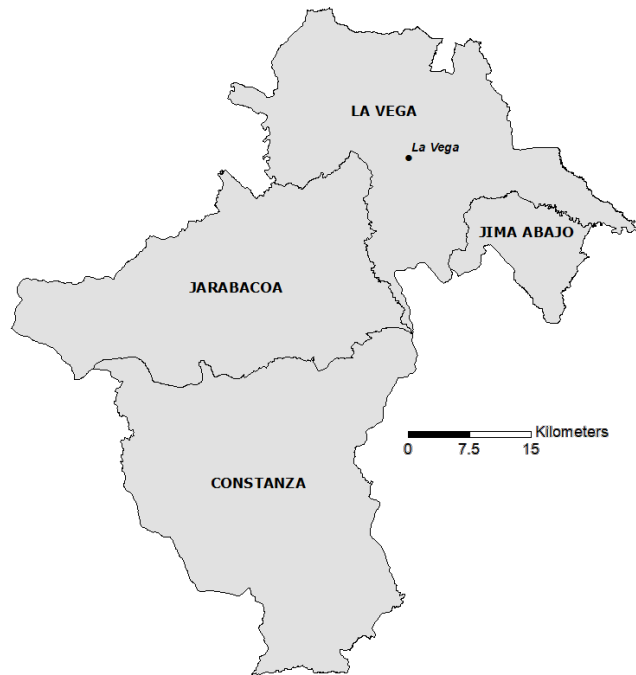


Area: 2,579 km²

La Vega is centrally located and includes the fertile La Vega Real region. La Vega is a prosperous commercial, manufacturing, and transportation center which yields cacao, coffee, tobacco, rice, fruits, and cattle.



| Municipality | Population |
|--------------|------------|
| La Vega | 256,146 |
| Constanza | 60,954 |
| Jarabacoa | 58,646 |
| Jima Abajo | 31,244 |



**Multi-Hazard Risk Rank:
Medium (15 of 32)**

**Lack of Resilience Rank:
Very Low (27 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 | |
|-------------------|--------------|--------------------|--------------|-----------------------|--------------|---------------|--------------|-----------------|--------------|
| Medium | | Very Low | | Very High | | Low | | Very High | |
| Score | Rank (of 32) | Score | Rank (of 32) | Score | Rank (of 32) | Score | Rank (of 32) | Score | Rank (of 32) |
| 0.525 | 15 | 0.425 | 27 | 0.725 | 7 | 0.398 | 21 | 0.547 | 5 |

Multi-Hazard Exposure (MHE)

Multi-Hazard Exposure¹ Rank: 7 of 32 Provinces (Score: 0.725)

Table 2. Estimated ambient population² exposed to each hazard



Cyclone

100%

469,044 People



Earthquake

100%

469,044 People



Landslide

71%

332,991 People



Flood

39%

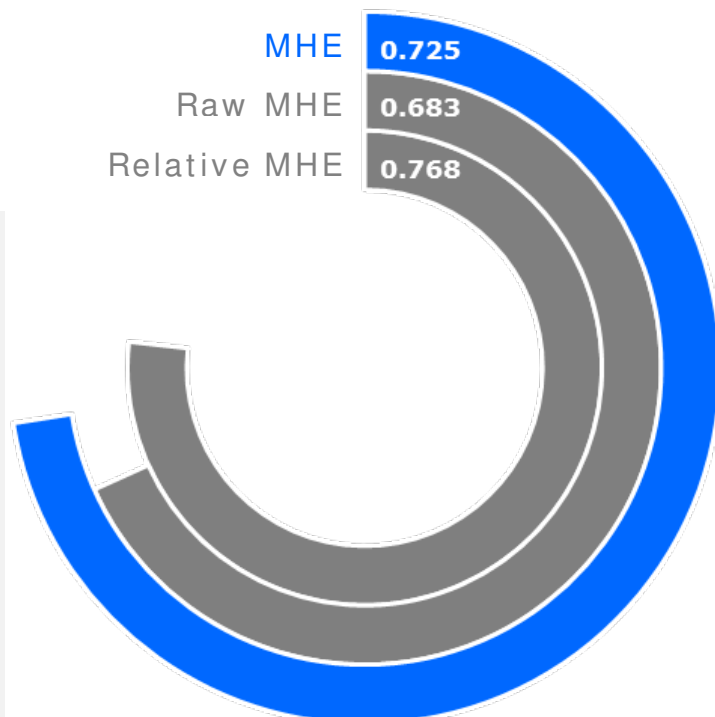
184,350 People



Tsunami

0%

0 People



Case Study: Flooding in La Vega Province

In early April 2018, the Province of La Vega experienced a significant flooding event after “heavy rain caused the Camú and Yaque del Norte rivers to overflow, flooding several areas...”. With over 99mm of rain in a 24-hour period, the country’s Emergency Operations Center (COE) declared a red alert for the province. More than 4,000 people were evacuated, and over 800 homes were damaged or destroyed. The national social service agency worked to return affected areas to normal within days of the disaster.

“Dominican Republic – Thousands Evacuated After Floods in La Vega Province” – Floodlist, 10 April 2018

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

² 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)

Vulnerability³ Rank: 21 of 32 Provinces (Score: 0.398) Despite this relatively low rank, vulnerability in La Vega is strongly influenced by a high Gender Inequality. The bar chart on the right indicates the socioeconomic themes contributing to the Province's overall Vulnerability score.

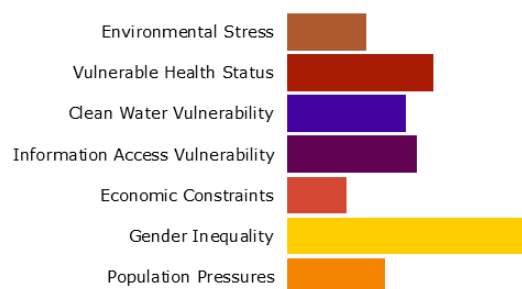









Table 3. Component Scores for each Vulnerability Sub-component

| | | | | | | | |
|---|---|--|--|--------------------------------------|--------------------------------|-----------------------------------|-----------------------------------|
|  | Environmental Stress | 0% Province Susceptible to Drought | -1.6% Average Annual Forest Change | | | | |
|  | Vulnerable Health Status | 23.2 Infant Mortality Rate | 67.8 Maternal Mortality Rate | 11.5 Chronic Malnutrition | 7.6% Population Disabled | | |
|  | Clean Water Vulnerability | 28.1% Households without Access to Improved Water | 4.8% Households without Access to Flush Toilets | | | | |
|  | Information Access Vulnerability | 14.7% Illiteracy | 83.1% Primary School Enrollment | 91.1% Households without Internet | 20.1% Households without TV | 47.5% Households without Radio | 6.4 Average years of Schooling |
|  | Economic Constraints | 54.0 Economic Dependency Ratio | 30.4% Population in Poverty | 33.0% CEP Beneficiaries | | | |
|  | Gender Inequality | 28.7% Female Seats in Government | 1.1 Female to Male Years of Schooling | 0.52 Female to Male Labor Ratio | | | |
|  | Population Pressures | 0.41% Average Annual Population Change | 0.96% Average Annual Urban Population Change | | | | |

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: 5 of 32 Provinces (Score: 0.547)
 La Vega exhibits moderate relative scores in the thematic areas of Health Care Capacity, Economic Capacity and Governance. The bar chart on the right indicates the socioeconomic themes contributing to the province's overall Coping Capacity score.

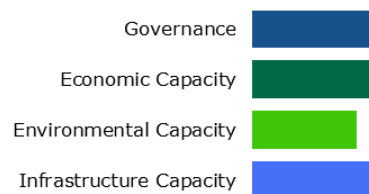









Table 4. Component Scores for each Coping Capacity Sub-component

| | | | | | | | |
|---|--------------------------------|---|--|--|---------------------------------------|--|--|
|  | Economic Capacity | 1.05 Debt to Service Ratio | 94.2% Employment Rate (Male) | RD\$ 24,585 Average Annual Income per Capita | | | |
|  | Governance | 72.7% Registered Voter Participation (2016 Election) | 17.1 Homicide Rate per 100k persons | 71.5% Households with Garbage Collection | | | |
|  | Environmental Capacity | 31.9% Protected or Reforested Land | | | | | |
|  | Infrastructure Capacity | | | | | | |
|  | Health Care Capacity | | 11.9 Hospital Beds per 10,000 Persons | 14.8 Nurses per 10,000 Persons | 14.0 Physicians per 10,000 Persons | 4.2 km Average Distance to Nearest Hospital | 0.93 Vaccination Index ⁵ |
|  | Communications Capacity | | 18.2% Households with Access to Fixed Phone Line | 78.4% Households with Access to Mobile Phone | | | |
|  | Transportation Capacity | | 19.0 km Average Distance to Nearest Port or Airport | 0.82 km Total Length of Road per 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.

⁵ 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.

Findings: Risk and Vulnerability Assessment (RVA)

Lack of Resilience (LR)

Lack of Resilience⁶ Rank: 27 of 32 Provinces (Score: 0.425)

La Vega's score and ranking are due to low Vulnerability combined with high Coping Capacity scores. La Vega ranks 21st in Vulnerability and 5th in Coping Capacity.

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



Gender Inequality



Health Care Infrastructure Capacity



Economic Capacity

Multi-Hazard Risk (MHR)

Multi-Hazard Risk⁷ Rank: 15 of 32 Provinces (Score: 0.525)

La Vega's score and ranking are due to high Multi-Hazard Exposure combined with low Vulnerability and very high Coping Capacity.

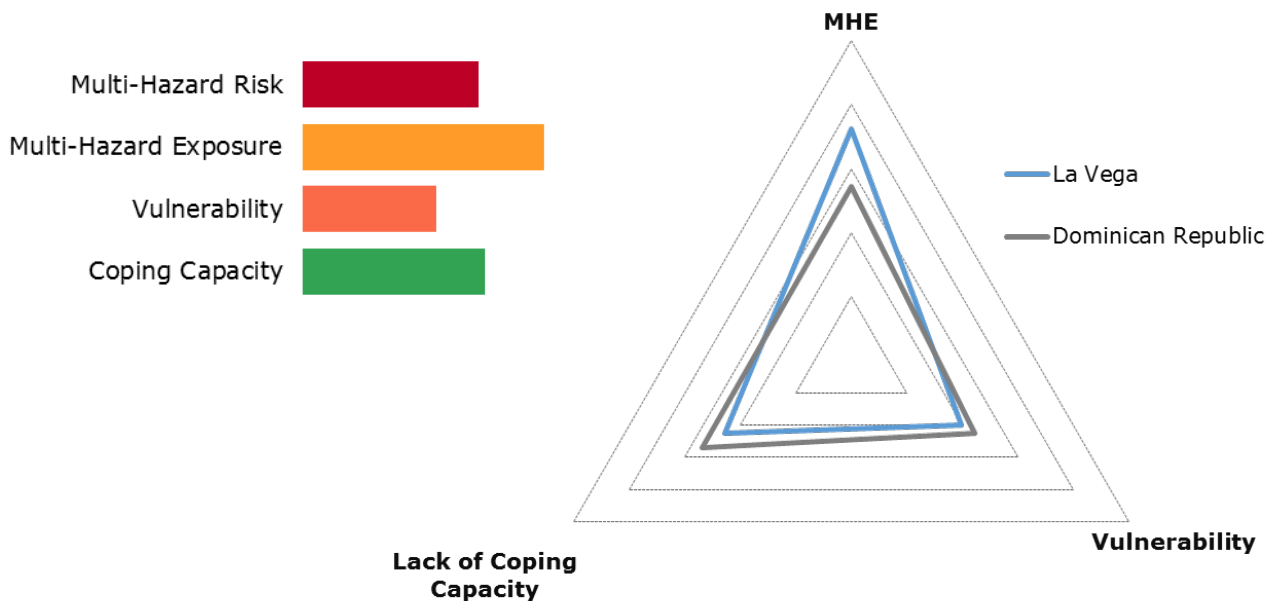


Figure 1. Province Multi-Hazard Risk Component Scores Compared to Overall Average Country Scores

⁶ 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.

⁷ 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 environmental stress

Ranked 25 of 32 provinces, low environmental stress indicates that natural resources and agriculture will be more resilient to the effects of a disaster and may recover faster.



Low population pressures

Ranked 25 of 32 provinces, limited population change allows disaster managers to form accurate evacuation, sheltering, and resource plans.



Low economic constraints

Ranked 26 of 32 provinces, low economic constraints indicate that La Vega may be able to invest in additional mitigation and preparedness measures at the local and community level.

Recommendations

01

Increase business development

Invest in business development and education programs to boost economic capacity and increase the number of businesses and the likelihood of success of those businesses.

02

Increase health care availability

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

03

Provide increased opportunities for women

Public education and awareness programs that focus on increasing the role of women in the workplace and the society will improve resilience and decrease vulnerability.