

VENEZUELA EARTHQUAKE | Predictive Analysis of Protection Risk Exposure in Earthquake-Affected Areas

5 July 2026 (UPDATED ANALYSIS)

This analysis provides an initial, indicative assessment of areas where protection concerns may be heightened following the earthquakes that struck north-central Venezuela on **24 June 2026**. The analysis combines population exposure to damaging earthquake shaking (**MMI VI and above**) with pre-existing protection risk severity derived from Protection Cluster risk scoring across 15 protection risks. While field assessments are ongoing, the results highlight municipalities where large exposed populations overlap with elevated protection vulnerabilities, helping to prioritize protection monitoring, assessments, and response planning.

EXECUTIVE SUMMARY

On **24 June 2026**, two consecutive earthquakes of **magnitude 7.2 and 7.5** struck north-central Venezuela along the **San Felipe–Yumare–Montalbán axis (Yaracuy/Carabobo)**, triggering hundreds of aftershocks and causing widespread humanitarian impacts across at least seven states. As of yesterday¹, authorities reported **940 aftershocks, 2,954 deaths, 16,592 injuries, and 26,403 affected people**, including **12,841 displaced and severely affected individuals**. La Guaira remains the most affected state.

2026 HNRP KEY FIGURES – PROTECTION CLUSTER

28M

TOTAL POPULATION

11.1M

PEOPLE EXPOSED TO RISKS*

5.9M

PEOPLE IN NEED

1.9M

PEOPLE TARGETED

** Data from October 2025, representing 40% of the population exposed to protection risks.*

KEY FIGURES – 5 JULY 2026

10.7M

TOTAL POPULATION LIVING IN MMI SCALE VI to IX*

3.4M

PEOPLE EXPOSED TO EARTHQUAKE SHAKING – MMI VI – IX **

2.3M

PEOPLE EXPOSED TO PROTECTION RISKS IN 88 MUNICIPALITIES; MMI VI – IX ***

** Total population living in 7 states of Aragua, Carabobo, Distrito Capital, Falcón, La Guaira, Miranda and Yaracuy, under MMI scale VI to IX.*

*** Approximately 3.45 million people are exposed to MMI VI+ earthquake impacts across the 88 affected municipalities.*

**** Refer to the detailed excel file on data for 88 identified municipalities..*

Using WorldPop population data and Modified Mercalli Intensity (MMI) earthquake shaking zones, an estimated **3.45 million people** are exposed to **strong to violent earthquake shaking (MMI VI–IX)** across the affected municipalities. To support protection prioritization, earthquake exposure was combined with the latest available Protection Cluster severity analysis based on 15 protection risks. The resulting Protection Risk Exposure Index identifies municipalities where high earthquake exposure coincides with elevated protection risk severity.

The analysis indicates that approximately **2.3 million people** are exposed to protection risks in municipalities classified as **Very High, High, Moderate, Low and Very Low protection priority**. Of these, approximately **1 million people** are located in **Very High priority municipalities**, while a further **790,000 people** are located in **High**

¹ OCHA Situation Report No. 11 (4 July 2026)



priority municipalities.

Priority Class	Number of Municipalities	Population Exposed (MMI VI+)
Very High	8	1,046,597
High	10	789,349
Moderate	9	354,778
Low	18	118,990
Very Low	43	16,756
Total	88	2,326,470

The highest-priority municipalities are concentrated within the most affected states, particularly **La Guaira, Miranda, Distrito Capital, Carabobo, Aragua, Falcón and Yaracuy**, where significant earthquake impacts overlap with elevated protection vulnerabilities. These locations should be prioritized for rapid protection assessments, community-based protection monitoring, referral pathway verification, and specialized protection interventions.

ADM1_ES	ADM1_PCODE	IX (Violent)	VIII (Severe)	VII (Very Strong)	VI (Strong)	Grand Total
Miranda	VE15		78,822	826,079	193,872	1,098,774
Carabobo	VE08	153,540		385,785	8,732	548,057
Aragua	VE05	220		131,305	119,600	251,124
La Guaira	VE24	224,801				224,801
Falcón	VE11	2,305		73	160,549	162,927
Yaracuy	VE22	16,246		1,827	22,715	40,787
Total		397,111	78,822	1,345,069	505,467	2,326,470

The table above shows the **2.3 million people** distribution by admin 1 level (State). The largest share is in **Miranda** with around **1.1 million people**, followed by **Carabobo** with **548,000**, **La Guaira** with **225,000**, **Falcón** with **163,000**, and **Aragua** with **41,000**. While Miranda has the largest exposed population, La Guaira and parts of Carabobo include populations exposed to **MMI IX (Violent)** shaking, indicating areas where severe physical impact and protection vulnerabilities overlap.

Key Findings

Figure 1 map illustrates the distribution of earthquake shaking intensity across northern Venezuela based on the Modified Mercalli Intensity (MMI) scale. The highest shaking intensities (**MMI VIII–IX**) are concentrated in parts of **Yaracuy and Carabobo**, while broader surrounding areas experienced **MMI VI–VII (Strong to Very Strong)** shaking. By overlaying MMI intensity zones with WorldPop population data, the analysis estimates that approximately **3.45 million people** were exposed to **MMI VI and above shaking**, with the largest exposed populations concentrated along the north-

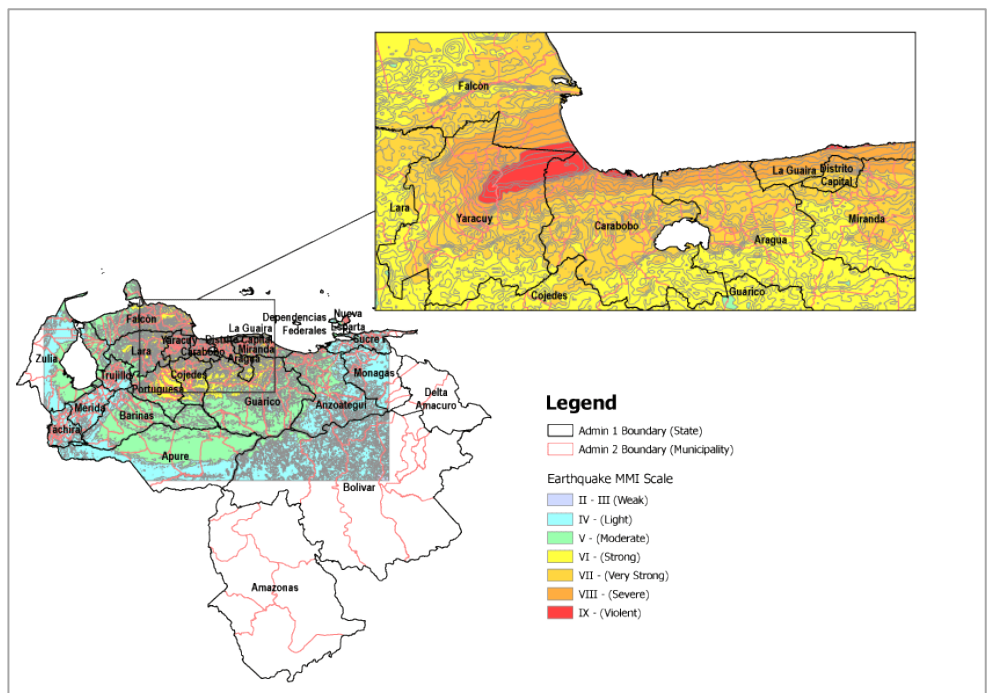


Figure 1: Map 1. Earthquake Intensity and Population Exposure (MMI)

central corridor covering **La Guaira, Distrito Capital, Miranda, Aragua, Carabobo, Yaracuy and Falcón**.

Figure 2 map identifies municipalities where earthquake exposure overlaps with elevated protection risk severity.

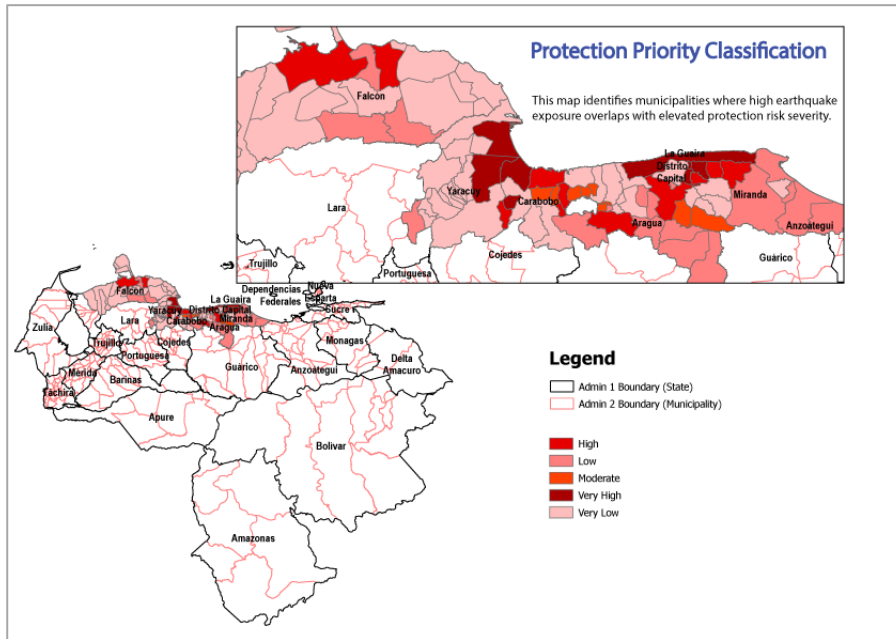


Figure 2: Protection Priority Classification

The analysis combines population exposure to **MMI VI and above shaking** with Protection Cluster severity scores derived from 15 protection risks to generate a **Protection Risk Exposure Priority Index**. Municipalities classified as **High or Very High (18)** priority represent locations where large exposed populations coincide with elevated protection vulnerabilities and therefore warrant priority attention for protection assessments, monitoring and response

interventions.

The results indicate that priority municipalities are concentrated primarily in **La Guaira, Miranda, Distrito Capital, Carabobo, Yaracuy, Aragua and Falcón**, corresponding closely with the areas most affected by earthquake shaking. Municipalities classified as **High or Very High** priority represent locations where large exposed populations coincide with elevated protection vulnerabilities and therefore warrant priority attention for protection monitoring, assessments and response interventions.

2^o PROTECTION RISKS ANALYSIS

YEAR	ADM1_CODE	ADM2LES	ABDUCTION OR KIDNAPING	ATTACKS OR CYBER	FAMILY SEPARATION	CHLD. EARLY OR FORCED MARRIAG	DISCRIMINATION	DISFRANCHISEMENT	FORCED RECRUITING	GENDER-BASED VIOLENCE	LEGAL IDENTITY	PRESENCE OF MISSING	PSYCHOSOCIAL	THEFT, EXTORTION	TORTURE	TRAFFICKING	FREEDOM OF MOVEMENT
2025	VE1	Falcón	Phase 1 (Very Low)	Phase 1 (Very Low)	Phase 2 (Low)	Phase 4 (High)	Phase 1 (Very Low)	Phase 1 (Very Low)	Phase 4 (High)	Phase 4 (High)	Phase 1 (Very Low)	Phase 2 (Medium)	Phase 1 (Very Low)	Phase 1 (Very Low)	Phase 1 (Very Low)	Phase 4 (High)	Phase 1 (Very Low)
2025	VE2	Carabobo	Phase 3 (Medium)	Phase 1 (Very Low)	Phase 2 (Low)	Phase 3 (Medium)	Phase 2 (Low)	Phase 3 (Medium)	Phase 2 (Low)	Phase 4 (High)	Phase 3 (Medium)	Phase 1 (Very Low)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 4 (High)	Phase 3 (Medium)
2025	VE3	Distrito Capital	Phase 4 (High)	Phase 2 (Low)	Phase 2 (Low)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 4 (High)	Phase 4 (High)	Phase 1 (Very Low)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 4 (High)	Phase 3 (Medium)
2025	VE4	La Guaira	Phase 2 (Low)	Phase 1 (Very Low)	Phase 2 (Low)	Phase 3 (Medium)	Phase 2 (Low)	Phase 2 (Low)	Phase 4 (High)	Phase 4 (High)	Phase 3 (Medium)	Phase 1 (Very Low)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 2 (Low)	Phase 4 (High)	Phase 3 (Medium)
2025	VE5	Aragua	Phase 4 (High)	Phase 2 (Low)	Phase 3 (Medium)	Phase 5 (Very High)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 4 (High)	Phase 4 (High)	Phase 3 (Medium)	Phase 1 (Very Low)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 4 (High)	Phase 3 (Medium)
2025	VE22	Yaracuy	Phase 2 (Low)	Phase 1 (Very Low)	Phase 2 (Low)	Phase 3 (Medium)	Phase 2 (Low)	Phase 2 (Low)	Phase 4 (High)	Phase 4 (High)	Phase 3 (Medium)	Phase 1 (Very Low)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 2 (Low)	Phase 4 (High)	Phase 3 (Medium)

Figure 3: Protection Risks Severity data (2025 and 2026)

The protection risk severity analysis for the seven earthquake-affected states uses the latest available Protection Cluster severity assessments, comprising **2025 data for Aragua, Carabobo, Distrito Capital, La Guaira, Miranda and Yaracuy**, and **2026 data for Falcón**. Across the affected states, **Gender-Based Violence (GBV)** is consistently assessed at **Phase 4 (High)**, making it the most prominent protection concern. Other high-severity risks include **Discrimination and Stigmatization, Denial of Resources, Opportunities, Services and/or Humanitarian Access**, assessed at **Phase 5 (Very High)** in Aragua and **Phase 4 (High)** in Carabobo. **Child and Forced Family Separation** and **Child, Early or Forced Marriage** are assessed at **Phase 4 (High)** in Falcón, while **Psychological/Emotional Abuse or Inflicted Distress, Theft, Extortion, Forced Eviction or Destruction of Personal Property, and Unlawful Impediments or Restrictions to Freedom of Movement, Siege and Forced Displacement** reach **Phase 4 (High)** in Miranda. **Trafficking in Persons, Forced Labour or Slavery-Like Practices** is assessed at **Phase 4 (High)** in Carabobo and Falcón. Overall, **Miranda, Falcón, Aragua and Carabobo** exhibit the highest concentration of Phase 4 and Phase 5 protection risks and are therefore likely to face the greatest overlap between earthquake impacts and pre-existing protection vulnerabilities.

² See Annex for detailed data



MMI SCALE	DESCRIPTION	PEOPLE EXPOSED TO EARTHQUAKE SHAKING
VI (Strong)	Noticeable shaking indoors, possible minor damage	1,110,534
VII (Very Strong)	Damage is considerable in poorly built or badly designed structures; fear among population	1,805,089
VIII (Severe)	Severe damage in poorly built structures	78,822
IX (Violent)	Building shifts off foundations	455,696
Total	All levels combined	3,450,141

KEY CONCLUSIONS

This analysis combines population exposure to damaging earthquake shaking (**MMI VI+**) with pre-existing protection risk severity to identify municipalities where protection concerns are likely to be most acute following the June 2026 earthquakes.

- An estimated **3.45 million people** are exposed to **MMI VI+ earthquake shaking**.
- Approximately **2.3 million people** (67% of the earthquake MMI exposed population) are exposed to protection risks, located in **88 municipalities (7 States)**.
- Approximately **1.8 million people** are exposed to protection risks, located in **High or Very High protection-priority municipalities**.
- The highest-priority municipalities are concentrated in **La Guaira, Miranda, Distrito Capital, Carabobo, Aragua, Yaracuy and Falcón**.
- **Gender-Based Violence (GBV)** is assessed at **Phase 4 (High)** across all seven affected states, while other significant concerns include discrimination and exclusion, child and family separation, psychosocial distress, trafficking, and restrictions on freedom of movement.
- Priority protection actions should focus on municipalities classified as **High and Very High** priority, particularly in **Miranda, Falcón, Aragua and Carabobo**.

Overall, the analysis identifies approximately 2.3 million people, exposed to MMI VI+ earthquake shaking, who are also experiencing protection risks, residing in municipalities classified as High, Very High, Moderate, Low and Very Low protection priority. These 88 municipalities should be prioritized for protection assessments, monitoring and response planning while more detailed field assessments become available.

ANNEX 'A'

1. The Modified Mercalli Intensity (MMI) Scale⁴

The MMI scale describes the intensity of shaking experienced during an earthquake, ranging from I (Not Felt) to X (Extreme Destruction). Unlike magnitude (which measures energy released), intensity reflects how people, buildings, and the environment are actually affected in different locations.

The following is an abbreviated description of the levels of [Modified Mercalli intensity](#).

MMI	Description	Effects
I-II	Not felt / Very weak	Only detected by instruments or a few people under favorable conditions.
III-IV	Weak to Ligh	Felt indoors by many; dishes rattle, walls and windows creak.
V	Moderate	Felt by nearly all; small objects move; minor cracks and plaster damage possible.
VI	Strong	People frightened; objects fall; some chimney and window damage.
VII	Very Strong	Considerable damage in poorly built structures; landslides possible.
VIII	Severe	Heavy furniture moves; partial building collapses; widespread structural damage.
IX	Violent	Buildings shift off foundations; serious structural damage even in stronger buildings.
X	Extreme	Most masonry structures destroyed; severe damage in engineered buildings.

2. Protection Risks Severity Data (2024-25-26 for 7 most affected States)

YEAR	ADM1_PC ODE	ADM1_ES	ABDUCTION, KIDNAPPING	ATTACKS ON CIVILIANS	FAMILY SEPARATION	CHILD, EARLY OR FORCED MARRIAGE	DISCRIMINATION
2026	VE11	Falcón	Phase 1 (Very Low)	Phase 1 (Very Low)			Phase 4 (High)
2025	VE05	Aragua	Phase 3 (Medium)	Phase 1 (Very Low) Phase 2 (Low)		Phase 2 (Low)	Phase 3 (Medium)
2025	VE08	Carabobo	Phase 3 (Medium)	Phase 1 (Very Low) Phase 2 (Low)		Phase 2 (Low)	Phase 3 (Medium)
2025	VE01	Distrito Capital	Phase 4 (High)	Phase 2 (Low)	Phase 2 (Low)	Phase 2 (Low)	Phase 3 (Medium)
2025	VE11	Falcón	Phase 3 (Medium)	Phase 1 (Very Low) Phase 4 (High)		Phase 3 (Medium)	Phase 3 (Medium)
2025	VE24	La Guaira	Phase 2 (Low)	Phase 1 (Very Low) Phase 2 (Low)		Phase 2 (Low)	Phase 3 (Medium)
2025	VE15	Miranda	Phase 4 (High)	Phase 2 (Low)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 3 (Medium)
2025	VE22	Yaracuy	Phase 2 (Low)	Phase 1 (Very Low) Phase 2 (Low)		Phase 2 (Low)	Phase 3 (Medium)
2024	VE05	Aragua	Phase 3 (Medium)	Phase 4 (High)	Phase 3 (Medium)	Phase 2 (Low)	Phase 2 (Low)
2024	VE08	Carabobo	Phase 3 (Medium)	Phase 2 (Low)	Phase 4 (High)	Phase 3 (Medium)	Phase 5 (Very High)
2024	VE01	Distrito Capital	Phase 4 (High)	Phase 2 (Low)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 2 (Low)
2024	VE11	Falcón	Phase 2 (Low)		Phase 4 (High)	Phase 3 (Medium)	Phase 3 (Medium)
2024	VE24	La Guaira	Phase 3 (Medium)	Phase 2 (Low)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 2 (Low)
2024	VE15	Miranda	Phase 4 (High)	Phase 1 (Very Low) Phase 4 (High)		Phase 3 (Medium)	Phase 4 (High)

YEAR	ADM1_PC ODE	ADM1_ES	DISINFORMATION	FORCED RECRUITMENT	GENDER-BASED VIOLENCE	LEGAL IDENTITY	PRESENCE OF MINE
2026	VE11	Falcón	Phase 1 (Very Low)	Phase 1 (Very Low)	Phase 4 (High)	Phase 4 (High)	Phase 1 (Very Low)
2025	VE05	Aragua	Phase 2 (Low)	Phase 3 (Medium)	Phase 4 (High)	Phase 3 (Medium)	Phase 1 (Very Low)
2025	VE08	Carabobo	Phase 2 (Low)	Phase 2 (Low)	Phase 4 (High)	Phase 3 (Medium)	Phase 1 (Very Low)
2025	VE01	Distrito Capital	Phase 3 (Medium)	Phase 3 (Medium)	Phase 4 (High)	Phase 4 (High)	Phase 1 (Very Low)
2025	VE11	Falcón	Phase 2 (Low)	Phase 3 (Medium)	Phase 4 (High)	Phase 3 (Medium)	Phase 1 (Very Low)
2025	VE24	La Guaira	Phase 2 (Low)	Phase 2 (Low)	Phase 4 (High)	Phase 3 (Medium)	Phase 1 (Very Low)
2025	VE15	Miranda	Phase 3 (Medium)	Phase 3 (Medium)	Phase 4 (High)	Phase 3 (Medium)	Phase 1 (Very Low)
2025	VE22	Yaracuy	Phase 2 (Low)	Phase 2 (Low)	Phase 4 (High)	Phase 3 (Medium)	Phase 1 (Very Low)
2024	VE05	Aragua	Phase 2 (Low)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 1 (Very Low)
2024	VE08	Carabobo	Phase 3 (Medium)	Phase 3 (Medium)	Phase 4 (High)	Phase 4 (High)	Phase 1 (Very Low)
2024	VE01	Distrito Capital	Phase 2 (Low)	Phase 4 (High)	Phase 4 (High)	Phase 3 (Medium)	Phase 1 (Very Low)
2024	VE11	Falcón	Phase 3 (Medium)	Phase 1 (Very Low)	Phase 4 (High)	Phase 3 (Medium)	Phase 1 (Very Low)
2024	VE24	La Guaira	Phase 3 (Medium)	Phase 2 (Low)	Phase 4 (High)	Phase 3 (Medium)	Phase 1 (Very Low)
2024	VE15	Miranda	Phase 2 (Low)	Phase 4 (High)	Phase 5 (Very High)	Phase 3 (Medium)	Phase 1 (Very Low)

YEAR	ADM1_PC ODE	ADM1_ES	PSYCHOSOCIAL	THEFT, EXTORTION	TORTURE	TRAFFICKING	FREEDOM OF MOVEMENT
2026	VE11	Falcón	Phase 3 (Medium)	Phase 1 (Very Low)	Phase 1 (Very Low)	Phase 4 (High)	Phase 1 (Very Low)
2025	VE05	Aragua	Phase 3 (Medium)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 2 (Low)	Phase 3 (Medium)
2025	VE08	Carabobo	Phase 3 (Medium)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 4 (High)	Phase 3 (Medium)
2025	VE01	Distrito Capital	Phase 3 (Medium)	Phase 4 (High)	Phase 4 (High)	Phase 2 (Low)	Phase 3 (Medium)
2025	VE11	Falcón	Phase 3 (Medium)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 4 (High)	Phase 3 (Medium)
2025	VE24	La Guaira	Phase 3 (Medium)	Phase 3 (Medium)	Phase 2 (Low)	Phase 2 (Low)	Phase 3 (Medium)
2025	VE15	Miranda	Phase 3 (Medium)	Phase 4 (High)	Phase 3 (Medium)	Phase 2 (Low)	Phase 4 (High)
2025	VE22	Yaracuy	Phase 3 (Medium)	Phase 3 (Medium)	Phase 2 (Low)	Phase 2 (Low)	Phase 3 (Medium)
2024	VE05	Aragua	Phase 3 (Medium)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 2 (Low)
2024	VE08	Carabobo	Phase 3 (Medium)				
2024	VE01	Distrito Capital	Phase 3 (Medium)				
2024	VE11	Falcón	Phase 3 (Medium)	Phase 2 (Low)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 1 (Very Low)
2024	VE24	La Guaira	Phase 2 (Low)	Phase 2 (Low)	Phase 3 (Medium)	Phase 3 (Medium)	Phase 2 (Low)
2024	VE15	Miranda	Phase 3 (Medium)	Phase 4 (High)	Phase 3 (Medium)	Phase 4 (High)	Phase 3 (Medium)

3. Top 18 Municipalities (Very High and High Classification)

ADM1_ES	ADM1_PC ODE	ADM2_ES	ADM2_PC ODE	MMI	Protection Risks Score	Population Exposed	Priority Classification
Miranda	VE15	Sucre	VE1519	VII (Very Strong)	4.50	339,352	Very High
Miranda	VE15	Baruta	VE1503	VII (Very Strong)	4.50	304,257	Very High
La Guaira	VE24	Vargas	VE2401	IX (Violent)	4.04	224,801	Very High
Miranda	VE15	Chacao	VE1507	VIII (Severe)	4.50	78,822	Very High
Carabobo	VE08	Juan José Mora	VE0805	IX (Violent)	3.81	57,224	Very High
Carabobo	VE08	Montalbán	VE0809	VII (Very Strong)	3.81	26,534	Very High
Yaracuy	VE22	Veroes	VE2214	IX (Violent)	1.00	13,301	Very High
Falcón	VE11	Silva	VE1120	IX (Violent)	3.06	2,305	Very High
Falcón	VE11	Miranda	VE1114	VI (Strong)	3.06	137,035	High
Carabobo	VE08	Los Guayos	VE0807	VII (Very Strong)	3.81	97,740	High
Carabobo	VE08	Puerto Cabello	VE0811	IX (Violent)	3.81	96,316	High
Carabobo	VE08	Guacara	VE0804	VII (Very Strong)	3.81	94,634	High
Miranda	VE15	Plaza	VE1517	VII (Very Strong)	4.50	93,886	High
Miranda	VE15	Bolivariano Guaicaipuro	VE1510	VI (Strong)	4.50	88,589	High
Miranda	VE15	El Hatillo	VE1509	VII (Very Strong)	4.50	88,584	High
Aragua	VE05	Ezequiel Zamora	VE0516	VI (Strong)	4.15	88,459	High
Miranda	VE15	Zamora	VE1521	VI (Strong)	4.50	2,980	High
Falcón	VE11	Zamora	VE1125	VI (Strong)	3.06	1,127	High
					3.83	1,835,945	

4. Methodology Note

This analysis was developed to support the initial prioritization of protection actions following the earthquakes that struck north-central Venezuela on 24 June 2026. The approach combines earthquake exposure data with existing protection risk severity information to identify municipalities where earthquake impacts are most likely to compound pre-existing protection vulnerabilities.

Earthquake exposure was assessed using Modified Mercalli Intensity (MMI) data, focusing on areas exposed to **MMI VI (Strong) and above**, representing shaking levels commonly associated with physical damage, disruption of services, displacement, and increased humanitarian impacts. Population exposure was estimated by overlaying MMI intensity zones with **WorldPop 2026** population data. Population figures were aggregated at municipality (Admin 2) level for the seven most affected states: **Aragua, Carabobo, Distrito Capital, Falcón, La Guaira, Miranda, and Yaracuy**.

To assess protection vulnerabilities, the analysis used the latest available Protection Cluster protection risk severity assessments covering **15 protection risks**. The analysis relied on **2025 severity data** for Aragua, Carabobo, Distrito Capital, La Guaira, Miranda, and Yaracuy, and **2026 severity data** for Falcón. Severity scores were consolidated into a normalized protection severity score to facilitate comparison across affected states.

A **Protection Risk Exposure Index** was calculated by combining normalized population exposure with the normalized protection severity score. This index does not estimate protection caseloads but rather highlights locations where large populations exposed to damaging earthquake shaking overlap with elevated protection risk severity. Municipalities were subsequently classified into **Very Low, Low, Moderate, High, and Very High** priority categories using the **Natural Breaks (Jenks)** classification method.

To support resource allocation across all affected municipalities, a **risk-weighted population exposure³ approach** was also applied. Population exposed to **MMI VI+ shaking** was weighted according to the municipality's protection priority classification, assigning progressively higher weights to municipalities classified as Moderate, High and Very High priority. This approach produces an indicative **risk-weighted exposed population estimate** that reflects both the scale of earthquake exposure and the relative severity of protection risks. The resulting figure should be interpreted as an allocation and prioritization metric rather than a direct estimate of protection caseloads.

The resulting analysis identifies priority municipalities for protection assessments, monitoring, and response planning. The findings should be interpreted as a rapid prioritization tool. More detailed field assessments will be required to validate findings and inform the revision of Protection Cluster People in Need (PiN) and target figures for the HNRP addendum.

³ **Risk-weighting approach:** Very High = 1.00; High = 0.75; Moderate = 0.50; Low = 0.25; Very Low = 0.10