



Nicaragua

Earthquake

27 February 2023

Final Event Briefing

9 March 2023

1 INTRODUCTION

A magnitude 5.3 earthquake occurred at 18:46:06 (UTC) on 27 February 2023, 55.1 km (34.2 mi) E of Jiquilillo, Nicaragua; 85 km (52.8 mi) E of El Viejo, Nicaragua and 86.4 km (53.7 mi) ESE of Corinto, Nicaragua. Final estimates from the United States Geological Survey (USGS) located the epicentre of the event at 12.652°N, 87.950°W, and at a depth of 77.3 km (48.03 mi).— Figure 1.



Figure 1 Information from the Earthquake Hazards Program of the United States Geological Survey regarding the earthquake event on 27 February 2023 at 18:46:06 (UTC). Source: USGS¹

Nicaragua was the only CCRIF member country where peak ground acceleration, computed with the SPHERA model, was greater than 0.01 g for this earthquake.

Final runs of CCRIF’s loss model estimated no government losses for Nicaragua and therefore no payout under the country’s earthquake policy is due.

2 CCRIF MODEL OUTPUTS

Under CCRIF’s loss calculation protocol, a report using the CCRIF SPHERA model is produced for any earthquake with a magnitude greater than or equal to 5.0 that occurs within the region monitored by CCRIF and which generates a peak ground acceleration of at least 0.01 g in one or more grid cells of at least one CCRIF member country. Based on the SPHERA footprint for this earthquake, peak ground acceleration of up to 0.020 g was estimated in Nicaragua (Figure 2), but under SPHERA, the earthquake generated a loss estimation of zero.

¹ Download Event KML, United States Geological Survey, review date: 9 March 2023, available at: <https://earthquake.usgs.gov/earthquakes/feed/v1.0/detail/us7000jg21.kml>

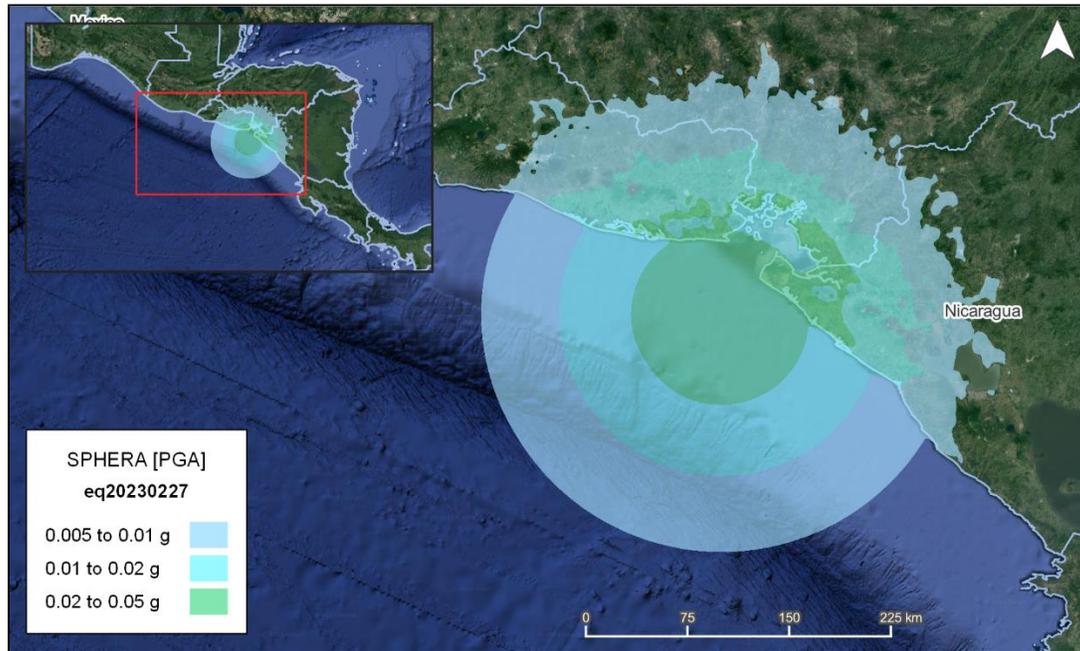


Figure 2 Map showing the peak ground acceleration in Nicaragua computed using SPHERA model following the magnitude 5.3 earthquake² on 27 February at 18:46:06 UTC
Source: *USGS & CCRIF SPHERA EQ Model.*

3 IMPACTS

At the time of writing this report, there was no available information on damage or loss in Nicaragua due to this earthquake.

According to the USGS “Did You Feel It?” online tool 2 persons in Managua, Nicaragua, within a radius of 205 km (127.3 mi) from the epicentre and 6 persons in El Salvador within a radius of 190 km (118.06 mi) from the epicentre reported the earthquake as being a “weak shake with no damage” (Mercalli intensity: II-III).

4 TRIGGER POTENTIAL

Final runs of the CCRIF loss model for peak ground acceleration produced no government losses for Nicaragua. Therefore, no payout under this country’s earthquake policy is due.

For additional information, please contact CCRIF SPC at: pr@ccrif.org

² United States Geological Survey (USGS), review date: 9 March 2023, available at: [M 5.3 - near the coast of Nicaragua \(usgs.gov\)](https://www.usgs.gov/earthquake-hazard-data/eqcatalog/m53-near-the-coast-of-nicaragua)
