



Nicaragua

Earthquake

24 March 2019

Event Briefing

25 March 2019

1 INTRODUCTION

A magnitude 5.3 earthquake occurred at 09:30:02 UTC on 24 March 2019 (03:30:02 local time), 26.9 km (16.7 mi) NE of Nagarote, Nicaragua; 39.1 km (24.3 mi) NNW León, Nicaragua and 44.7 km (27.8 mi) E Ciudad Sandino, Nicaragua. Initial estimates from the United States Geological Survey (USGS) located the epicentre of the event (Figure 1) at 12.107°N, 86.752°W, and at a depth of 95.7 km (59.5 mi). Nicaragua was the only CCRIF member country where peak ground acceleration, computed with the MPRES model, was greater than 0.01g for this earthquake.

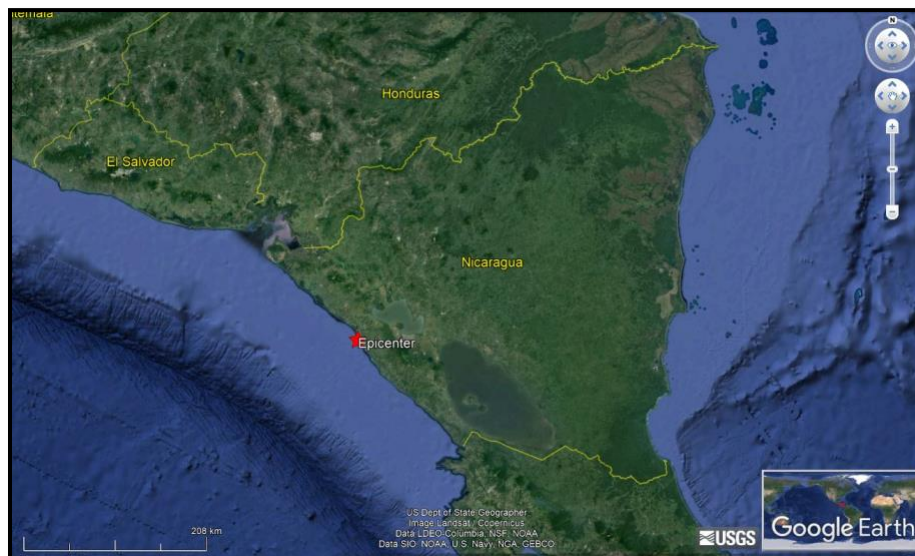


Figure 1 Information from the Earthquake Hazards Program of the United States Geological Survey, regarding the earthquake event on 24 March 2019. Source: USGS (<https://earthquake.usgs.gov>).

The earthquake was reported also by the Seismology Department of the Nicaraguan Institute of Territorial Studies (in Spanish: Dirección de Sismología del Instituto Nicaragüense de Estudios Territoriales), with epicentre coordinates 12.050°N and 86.790°W, magnitude 5.5 and depth of 78 km (48.5 mi).

This event briefing is designed to review the model outputs for affected CCRIF member countries using the seismic parameters reported by the USGS.

Preliminary runs of CCRIF's loss model reported no government losses for Nicaragua and therefore no payout is due.

2 CCRIF MODEL OUTPUTS

Under CCRIF's loss calculation protocol, a CCRIF Multi-Peril Risk Estimation System (MPRES) report is required for any earthquake with a magnitude of 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 member country. Based on the MPRES footprint for this earthquake, peak ground acceleration between 0.005g and 0.02g was estimated in the territory of Nicaragua (Figure 2), for which the MPRES loss estimation was zero.

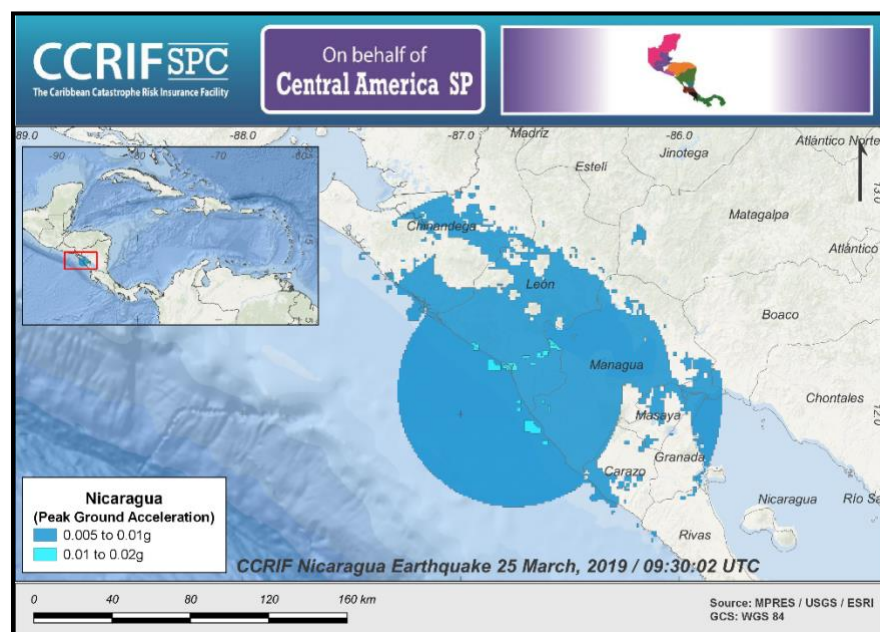


Figure 2 Map showing the peak ground acceleration computed using MPRES model in Nicaragua following the magnitude 5.3 earthquake on 24 March 2019. Source: USGS & CCRIF MPRES.

3 IMPACTS

According to Vice-President Rosario Murillo, no damages were identified due to this earthquake. At the time of this report, local media¹ had reported that this earthquake was felt by the population but no injuries or damage to infrastructure were reported.

According to the USGS “Did You Feel It?” online tool², in Nicaragua within a radius of 166 km (103 mi) from the epicentre, 55 persons reported the earthquake as a “weak shake with no damage” to “light shake with no damage” (Mercalli intensities: II to IV).

4 TRIGGER POTENTIAL

Preliminary runs of CCRIF’s loss model reported no government losses for Nicaragua and therefore no payout is due.

For further information, please contact ERN-RED, the CCRIF SPC Risk Management Specialist.

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¹ tn8, Canal 8, review date: 25 March 2019, available at: <https://www.tn8.tv/>

² Did You Feel It?, United States Geological Survey, review date: 25 March 2019, available at: <https://earthquake.usgs.gov/earthquakes/eventpage/us1000jkw/dyfi/responses>