



# Nicaragua

# Earthquake

**6 January 2022**

## Final Modelled Loss and Policy Payment Report

**Loss Event**

**17 January 2022**

A magnitude 6.1 earthquake occurred at 16:25:07 (UTC) on 6 January 2022, 58.4 km (36.3 mi) S of Corinto, Nicaragua; 60.8 km (37.8 mi) SSW of León, Nicaragua and 66.6 km (41.4 mi) SW of La Paz Centro, Nicaragua. Estimates from the United States Geological Survey (USGS) located the epicentre of the event at 11.959°N, 87.147°W, and at a depth of 26.9 km (16.7 mi). Nicaragua was the only CCRIF member country with earthquake policy where peak ground acceleration, computed with the CCRIF SPHERA EQ model, was greater than 0.01 g for this earthquake.

The following tables provides the results of the final run of the CCRIF SPHERA EQ Model, using the input data downloaded from the US Geological Survey (USGS) on January 17, 2022; demonstrating that the event qualifies as a Loss Event<sup>1</sup> under the CCRIF's Policy.

*Table 1 Nicaragua's Policy parameters for Earthquake*

<i>Country</i>	Nicaragua
<i>Claim Number</i>	-
<i>Event Type</i>	EARTHQUAKE
<i>Date of Event</i>	6 January 2022
<i>Event Loss Amount</i>	\$18,036.69
<i>Policy Attachment Point (for relevant peril)</i>	\$44,880,000.00
<i>Policy Exhaustion Point (for relevant peril)</i>	\$197,600,000.00
<i>Coverage Limit (for relevant peril)</i>	\$29,640,784.00
<i>Previous Payments per Policy Year/Peril</i>	\$0
<i>Final Policy Payment Amount</i>	\$0
<i>Deductible Cover (DC) Payment Amount</i>	\$0

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<sup>1</sup> Any earthquake event which produces a modelled loss greater than zero in one or more policyholder countries.

Table 2 SPHERA EQ Model results for a magnitude 6.1 earthquake off the coast of Nicaragua on 6 January 2022 at 16:25:07 UTC

SPHERA code		
Government Losses		
territory	Total loss	gov loss
Anguilla	0.00	0.00
Antigua_Barbuda	0.00	0.00
Bahamas	0.00	0.00
Bahamas_C	0.00	0.00
Bahamas_NW2018	0.00	0.00
Bahamas_SE	0.00	0.00
Barbados	0.00	0.00
Belize	0.00	0.00
Bermuda	0.00	0.00
Cayman_Islands	0.00	0.00
Cayman_Islands_GC	0.00	0.00
Cayman_Islands_SI	0.00	0.00
Dominica	0.00	0.00
Grenada	0.00	0.00
Haiti	0.00	0.00
Jamaica	0.00	0.00
Kitts_Nevis	0.00	0.00
St_Lucia	0.00	0.00
Trinidad_Tobago	0.00	0.00
Trinidad_Tobago_TOB	0.00	0.00
Trinidad_Tobago_TRI	0.00	0.00
Turks_and_Caicos	0.00	0.00
Vincent_and_Grenadines	0.00	0.00
CostaRica	0.00	0.00
El_Salvador	0.00	0.00
Guatemala	0.00	0.00
Honduras	0.00	0.00
Nicaragua	120,244.63	18,036.69
Panama	0.00	0.00
Aruba	0.00	0.00
DominicanRepublic	0.00	0.00
Guadeloupe	0.00	0.00
Guyana	0.00	0.00
Martinique	0.00	0.00
Montserrat	0.00	0.00
NetherlandsAntilles_Bonaire	0.00	0.00
NetherlandsAntilles_CUW	0.00	0.00
NetherlandsAntilles_Saba	0.00	0.00
NetherlandsAntilles_StEustatius	0.00	0.00
NetherlandsAntilles_SXM	0.00	0.00
PuertoRico	0.00	0.00
Suriname	0.00	0.00
BritishVirginIslands	0.00	0.00
(43 rows)		
Event characteristics:		
"M 6.1 - 58 km S of Corinto Nicaragua", eq20220106, 20220106, 11.959, -87.147, 6.1, 26.9, 304, 26, 74, 142, 65, 98		

The modelled loss computed for Nicaragua using the SPHERA EQ model is US\$18,036.69. According to the policy payment computed using Nicaragua’s policy parameters, no payout is due under the underlying policy (Image 1).

Additionally, Endorsement 2021\_01: Deductible Cover was not activated. This additional coverage was not activated because the modelled losses were below 10 per cent of the minimum payment of the policy (Image 2).

The following image explain in detail the payout calculation according to the policy parameters for the Government of Nicaragua.

*Image 1. Policy Payment Calculation for Nicaragua following of magnitude 6.1 earthquake on January 6, 2022*

<b>Country Event Payout Rate</b>	The Country Event Payout Rate is calculated as follows, expressed as a percentage:  $\frac{\text{Modelled Loss} - \text{Attachment Point}}{\text{Exhaustion Point} - \text{Attachment Point}}$ Provided that the Country Event Payout Rate shall not be less than or equal to 0% or greater than 100%
<b>Modelled Loss =</b>	\$18,036.69
<b>Country Event Payout Rate =</b>	$\frac{(\$18,036.69 - \$44,880,000.00)}{(\$197,600,000.00 - \$44,880,000.00)} = 0$
<b>Policy Payment</b>	This equals to the lesser of: (a) the Event Payout Rate multiplied by the Coverage Limit, or (b) the Event Payout Limit. In any case, the first payment in an insured year shall not be less than the Minimum Payment (c).
<b>Event Payout Limit</b>	In respect of any Insured Event, the limit of any payout for that Insured Event. Defined as the Coverage Limit less any Policy Payment previously made during the Policy Period.
<b>Coverage Limit</b>	The maximum payout for all claims in any one Policy Period under this Policy as specified in the Schedule for each covered peril  a) = 0 % * \$29,640,784.00 = \$0 b) = \$29,640,784.00 - \$0 = \$29,640,784.00 c) = \$1,000,000.00
<b>POLICY PAYMENT =</b>	<b><math>\min(0; 29,640,784.00) = \\$0</math></b>

*Image 2. Deductible Cover Payment Calculation for Nicaragua following of magnitude 6.1 earthquake on January 6, 2022*

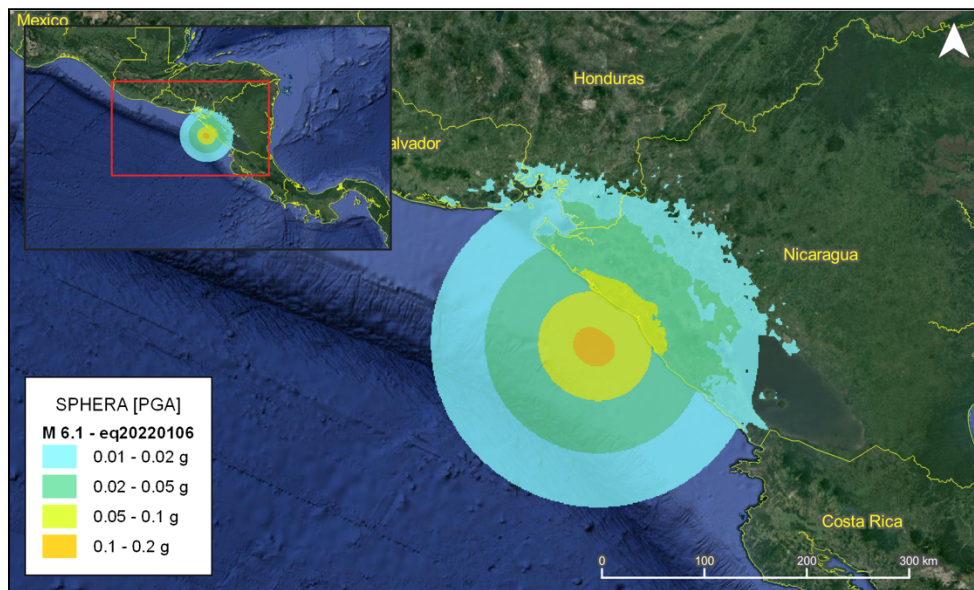
**ENDORSEMENT 2021\_01: CALCULATION OF DC PAYMENT**

The rule for the payouts under this endorsement is:

$$\text{payment} = \begin{cases} 10\% \text{ MP}; & \text{if } 10\% \text{ MP} < \text{ML} \leq 50\% \text{ AP and a DA is issued} \\ \left( \frac{6 \text{ ML}}{5 \text{ AP}} - \frac{1}{2} \right) \text{ MP}; & \text{if } 50\% \text{ AP} < \text{ML} \leq \text{AP} \\ 0; & \text{in any other case} \end{cases}$$

Minimum Payment (MP)	=	\$1,000,000.00
Modelled Losses (ML)	=	\$18,036.69
Attachment Point (AP)	=	\$44,880,000.00
Disaster Alert (DA)	=	No
<b>Modelled Payment for Deductible Cover (DC)</b>	=	\$0
<b>Previous Deductible Cover (DC) Payments</b>	=	\$0
<b>Sum insured remaining for ADC before this payout</b>	=	\$1,000,000.00
<b>PAYOUT FOR THIS EVENT UNDER DEDUCTIBLE COVER</b>	=	\$0
<b>Sum insured remaining for ADC after this payout</b>	=	\$1,000,000.00

The following figure provides the event impact footprint traces after model run (demonstrating that the event qualifies for analysis under the earthquake policy issued by CCRIF SPC on behalf of *Central America SP*).



*Figure 1. SPHERA EQ Model result of PGA footprint for an earthquake of magnitude 6.1 near the coast of Nicaragua, on 6 January 2022*

For additional information, please contact CCRIF SPC at: [pr@ccrif.org](mailto:pr@ccrif.org)