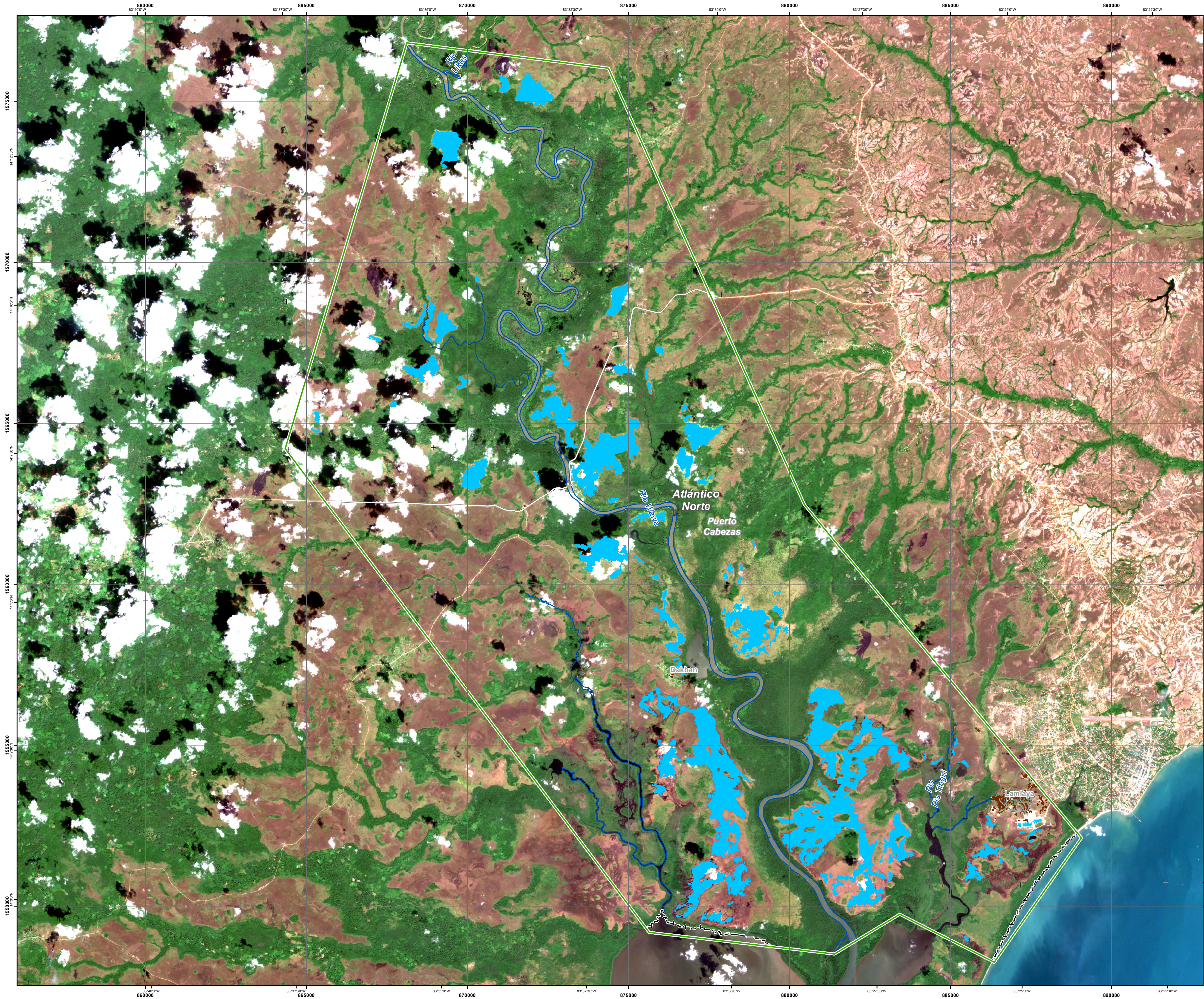




GLIDE number: TC-2020-000227-NIC Activation ID: EMSR482  
Int. Charter call ID: N/A Product N.: 10PUERTOCABEZASVALLEY\_v1

## Puerto Cabezas Valley - GUATEMALA, HONDURAS, NICARAGUA

### Flood - Situation as of 22/11/2020

#### Delineation - Overview map 01



#### Cartographic Information

1:54000 Full color A1, 200 dpi resolution

0 1 2 4 km

Grid: WGS 1984 UTM Zone 16N map coordinate system  
Tick marks: WGS 84 geographical coordinate system

#### Legend

|                                                                                                                               |                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| <b>Crisis Information</b>                                                                                                     | <b>Hydrography</b>                                                 |
| <span style="background-color: blue; border: 1px solid black;"> </span> Flooded Area (22/11/2020 22:57 UTC)                   | <span style="border-bottom: 2px solid blue;"> </span> Coastline    |
| <span style="border: 2px solid green;"> </span> Area of Interest                                                              | <span style="border-bottom: 2px solid blue;"> </span> River        |
| <b>Placenames</b>                                                                                                             | <span style="border-bottom: 2px solid blue;"> </span> River        |
| <span style="display: inline-block; width: 10px; height: 10px; border: 1px solid black; margin-right: 5px;"></span> Placename | <b>Transportation</b>                                              |
| <b>Administrative boundaries</b>                                                                                              | <span style="border-bottom: 2px solid grey;"> </span> Primary Road |
| <span style="border-bottom: 2px dashed black;"> </span> International Boundary                                                | <span style="border-bottom: 2px solid grey;"> </span> Local Road   |
| <b>Built-Up Area</b>                                                                                                          | <b>Land Use - Land Cover</b>                                       |
| <span style="background-color: brown; border: 1px solid black;"> </span> Residential                                          | Features available in the vector package                           |

| Consequences within the AOI |                                                | Unit of measurement   | Affected | Total in AOI |
|-----------------------------|------------------------------------------------|-----------------------|----------|--------------|
| Flooded area                |                                                | ha                    | 2566.2   |              |
| Estimated population        |                                                | Number of inhabitants | 214      |              |
| Buildings                   | Residential Buildings                          | ha                    | 0.0      | NA           |
| Transportation              | Primary Road                                   | km                    | 0.0      | NA           |
|                             | Local Road                                     | km                    | 0.0      | NA           |
| Land use                    | Forests                                        | ha                    | 1996.6   | 22472.8      |
|                             | Shrub and/or herbaceous vegetation association | ha                    | 624.0    | 7672.2       |
|                             | Inland wetlands                                | ha                    | 4.0      | 4730.9       |
|                             | Other                                          | ha                    | 21.6     | 785.5        |

#### Map Information

Hurricane Iota is an extremely strong hurricane bringing very high levels of rainfalls to Honduras, Nicaragua and Guatemala. The risk of flooding is extremely high and many 20yr + returns are to be expected as soil is already saturated by the passage of a previous hurricane (Eta) less than two weeks ago.

The present map shows the flood delineation in the area of Puerto Cabezas Valley (Nicaragua). The thematic layer has been derived from post-event satellite image using a semi-automatic approach.  
The estimated geometric accuracy (RMSE) is 25 m or better, from native positional accuracy of the background satellite image.

#### Relevant date records (UTC)

|            |                  |                 |                  |
|------------|------------------|-----------------|------------------|
| Event      | 17/11/2020 00:00 | Situation as of | 22/11/2020 22:57 |
| Activation | 17/11/2020 14:23 | Map production  | 23/11/2020       |

#### Data sources

Pre-event images: Sentinel-2A/B (2020) (acquired on 26/01/2020 at 16:05, GSD 10 m, approx. 15% cloud coverage in AoI) provided under COPERNICUS by the European Union and ESA.

Post-event image: COSMO-SkyMed © ASI (2020), distributed by e-GEOS S.p.A. (acquired on 22/11/2020 at 22:57 UTC, GSD 30.0 m), provided under COPERNICUS by the European Union and ESA, all rights reserved.

Base vector layers: OpenStreetMap © OpenStreetMap contributors, GeoNames 2015, Globe Land 30 (2010), Global Administrative Areas (2012), refined by the producer.  
Inset maps: JRC 2013, Natural Earth 2012, GeoNames 2013.

Population data: GHS - Population Grid © European Commission, 2019  
[https://ghsl.jrc.ec.europa.eu/ghs\\_pop2019.php](https://ghsl.jrc.ec.europa.eu/ghs_pop2019.php)

#### Disclaimer

Products elaborated in this Copernicus EMS Rapid Mapping activity are realized to the best of our ability, within a very short time frame, optimising the available data and information. All geographic information has limitations due to scale, resolution, date and interpretation of the original sources. No liability concerning the contents or the use thereof is assumed by the producer and by the European Union.  
Please be aware that the thematic accuracy might be lower in urban and forested areas due to inherent limitations of the SAR analysis technique.

Delivery formats are Layered Geospatial PDF, GeoJPEG and vector (ESRI shapefiles, Google Earth KML, GeoJSON).

Map produced by e-GEOS released by SERTIT (ODO).

For the latest version of this map and related products visit <https://emergency.copernicus.eu/EMSR482>

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