

SPECIAL FOCUS – December 2020

Hurricanes Eta and Iota bring destruction in Central America

Hurricane Eta made landfall on November 3rd in north-eastern Nicaragua as a category 4 hurricane, later downgrading to category 2 hurricane and continuing over Nicaragua, Honduras and Guatemala. Two weeks later, Hurricane Iota made landfall in Nicaragua on November 17th as a category 4 hurricane, the strongest Atlantic hurricane of the year ([WMO](#)), hitting the same areas in Central America affected by Hurricane Eta. Both hurricanes brought heavy rains (Figure 1), landslides and flooding that caused loss of lives, damage to infrastructure, and significant destruction to croplands, putting further stress to an already fragile food security situation. According to [USAID](#), 171 people have lost their lives due to Hurricane Eta, 5.2 million people have been affected by both hurricanes in Central America and 329,700 people are in emergency shelters in Guatemala, Honduras and Nicaragua.

In **Nicaragua**, torrential rains resulted in landslides and flooding, affecting 3 million people in 56 municipalities and damaging infrastructure and farmlands, particularly in the north of the country. Bean crops, which account for 25% of the national production, suffered the highest percentage of losses due to the excessive rainfall. Preliminary estimates suggest that losses in the most affected areas have gone up to 70% for beans and 60% for maize ([medias](#)). In **Honduras**, torrential rains resulted in landslides and flooding, damaging beans, maize and rice crops, among other. The heavy rains affected around 260,000 ha, of which 14,800 ha of beans and 8,700 ha of maize were destroyed (SAG in [media](#)). In **Guatemala**, Hurricane Eta resulted in loss of livestock and crop damage in 120,000 ha of 108 municipalities. *Postre* bean production in central, north and east Guatemala has suffered the highest impact of abundant rains, especially in Jutiapa (55,060 ha), Chiquimula (15,200 ha), Santa Rosa (13,704 ha), Alta Verapaz (10,950 ha), Zacapa (4,470 ha), (6,904 ha) and Izabal (6,714 ha) ([MAGA](#)). In mid-November, the torrential rains brought by Tropical Storm Iota damaged 9,978 ha of crops in 18 municipalities. Chiquimula, Zacapa, Alta and Baja Verapaz, Huehuetango, Izabal and El Progreso were among the regions hit hardest by floods ([MAGA](#)).

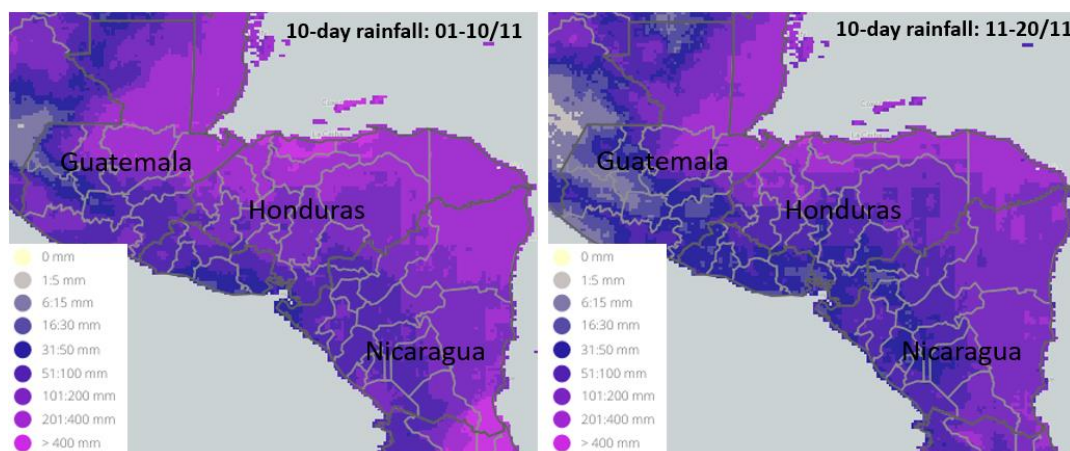


Figure 1. Cumulative rainfall for 10-day periods in the beginning of November (left) and mid-November (right) showing heavy rainfall amounts over Guatemala, Honduras and Nicaragua (source: CHIRPS, data mapped by JRC).

The flood extent was mapped by the Copernicus Emergency Management Service - Mapping for various areas affected in Central America. In this report the flood extent for two selected areas in Nicaragua and Guatemala (Figure 2) will be presented, and in figures 3 and 4 overlaid to the ASAP crop mask.



Figure 2. Overview map of Honduras and Nicaragua in Central America where the red color indicate areas with zoomed in maps included in this report.

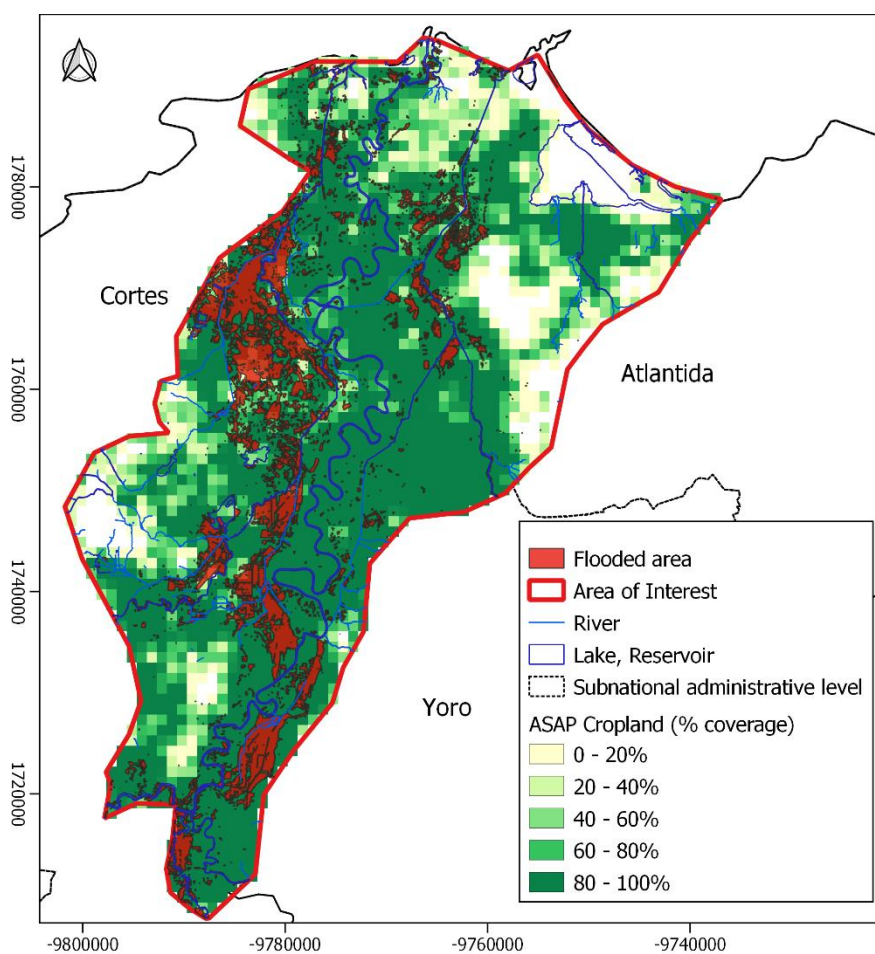


Figure 3. The area mapped is located in Ulua Basin in Honduras. According to [EMSR](#), heterogeneous agricultural areas affected are 6862.1 ha (Source of flood layer: [EMSR481: Tropical Cyclone ETA in Honduras](#), source of crop mask: [EC-JRC ASAP](#))

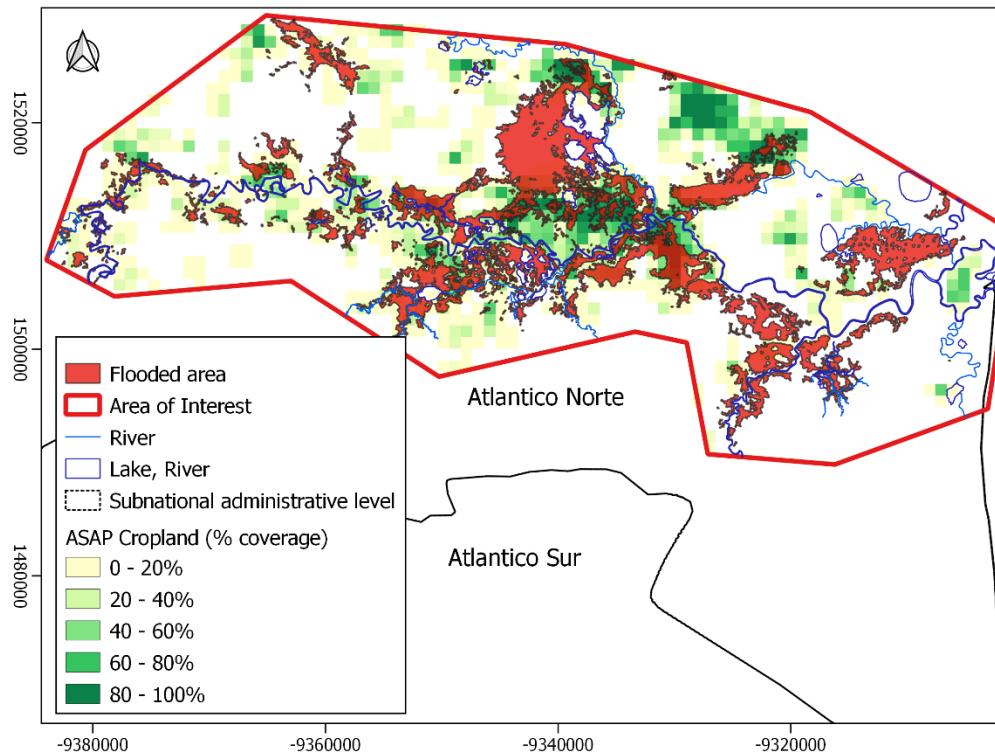


Figure 4. The area mapped is located in Prinzapolka in Nicaragua. According to [EMSR](#), forests affected are 14926.2 ha, shrub and/or herbaceous vegetation association affected are 12822.1 ha (Source of flood layer: [EMSR482: Tropical Cyclone Iota in Central America](#), source of crop mask: [EC-JRC ASAP](#))

More information can be found here:

- ECHO Daily Flash Archive: <https://erccportal.jrc.ec.europa.eu/ECHO-Flash/ECHO-Flash-List/yy/2020/mm/9>
- Emergency Management Service Mapping- Copernicus: [EMSR482: Tropical Cyclone Iota in Central America](#) and [EMSR481: Tropical Cyclone ETA in Honduras](#)
- Ministerio de Agricultura, Ganadería y Alimentación, Guatemala: <https://www.maga.gob.gt/download/info-2320.pdf>
- Floodlist- 04/11 : <http://floodlist.com/america/nicaragua-and-honduras-rain-from-hurricane-eta-causes-flooding>
- Floodlist- 19/11 : <http://floodlist.com/america/central-america-hurricane-iota-floods-landslides-november-2020>
- USAID: <https://reliefweb.int/report/nicaragua/am-rica-latina-tormentas-hoja-de-informaci-n-b-sica-n-2-o-fiscal-af-2021>
- Media: <https://www.laprensa.com.ni/2020/11/19/economia/2749813-preocupan-danos-en-el-frijol-arroz-y-lacteos-pero-cosep-descarta-desabastecimiento>
- SAG in Media: <https://www.radiohrn.hn/iota-y-eta-destruyen-115000-manzanas-de-cultivos-y-echan-a-perder-un-millon-de-litros-de-leche>

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