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# CONSEQUENCES OF THE HURRICANE 2020 SEASON ON INDIGENOUS COMMUNITIES IN CENTRAL AMERICA

**Destruction and Resilience** 









# PRELIMINARY REPORT ON THE CONSEQUENCES OF THE 2020 HURRICANE SEASON ON INDIGENOUS COMMUNITIES IN CENTRAL AMERICA DESTRUCTION AND RESILIENCE

**NOVEMBER 2020** 

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https://indigenascovid19.red/monitoreo/

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# Introduction

This document is a preliminary report on the human and material impacts of hurricanes Eta and Iota on the Central American isthmus.

It has been an extraordinary fact that two hurricanes of this size and strength have hit the region so close in time, affecting all Central American countries.

Because of the hurricanes' trajectory and the pre-existing vulnerability, many indigenous communities were hit and suffered significant human and material losses.

As has happened before, the official data does not address the impacts on communities and Indigenous Peoples, nor are these social sectors prioritized for prevention, mitigation, and reparation actions.

We have prepared this document to inform these severe events and call upon national authorities and international organizations to act according, considering the unique reality of the affected indigenous communities.

It is based on official information sources, the media, and testimonies of leaders and inhabitants of the indigenous communities impacted by the hurricanes and those who are trying to save lives and partly reduce the negative impacts.



# NATURAL PHENOMENA IN THE CENTRAL AMERICAN REGION

Latin America and the Caribbean is the second most disaster-prone region in the world after Asia. Between 2000 and 2019 alone, more than 150 million people have been seriously affected by 1,205 disasters (2000- 2019). <sup>1</sup>

Although many phenomena are cyclical, those most likely to trigger a major humanitarian response in the region are sudden onsets, such as earthquakes, hurricanes, and flash floods. The collective impact of recurrent climate crises, exceedingly prolonged droughts followed by seasonal flooding, results in complex and multidimensional humanitarian needs.

# **Recurring Climate Crises**

Communities and ecosystems in this part of the world are particularly vulnerable to climate change's adverse effects. The region is repeatedly affected by drought, heavy rains, cyclones, and the El Niño/La Niña phenomenon. El Niño and La Niña are global climatic phenomena caused by cyclical changes in the Pacific Ocean's water temperature.

These recurrent climatic shocks triggered by cyclical periods of drought and torrential rains have severely affected food security and agricultural production, livelihoods, health, water, sanitation, education, and other aspects in the region.

Between June and August 2018, the Dry Corridor of Central America (El Salvador, Guatemala, Honduras, and Nicaragua) experienced more extended and severe dry conditions than the average, the so-called heatwave. Agricultural production had a sharp decline of between 50% and 75%. As a result, more than 2.2 million people in those countries are food insecure, and more than 1.4 million people need food assistance.

Flooding is the most common disaster in the region. Since 2000, flooding in the region has caused more than \$1 billion in damage on twelve occasions.

Floods are one of the most costly natural disasters due to the wide range of damage caused, from loss of physical and environmental assets, including human belongings and housing, ecological systems and pro-

OCHA, Natural Disasters in Latin America and the Caribbean 2000 - 2019, March 2020

duction in all economic sectors, and health-related issues loss of life.

Excess water causes, among other consequences, landslides.

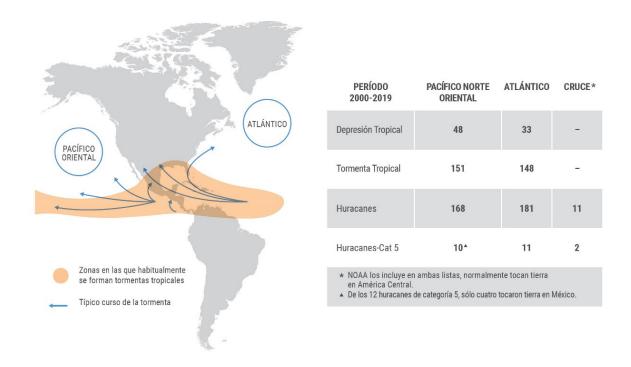
Since 2000, LAC has been impacted by 66 landslides, causing nearly 3,000 deaths, including the destructive landslides in Guatemala in 2015, which caused 350 deaths, and in Colombia in 2017, which caused 349 deaths and affected more than 45,000 people.

# Storms and hurricanes

The storms that usually affect Central America and the Caribbean are increasingly powerful and increase the rain and hurricane surges due to climate change. This higher frequency and intensity of storms in the region reduces recovery time between events.

The region averages 17 hurricanes per year. Between 2000 and 2019, there have been 23 category 5 hurricanes. In 2017, the hurricane season was the third-worst recorded regarding the countries affected and magnitude of damage. In 2019, Hurricane Dorian became the strongest Atlantic hurricane on record to impact a territory directly.

The OCHA monitors two active storm basins: The Atlantic (which includes the Eastern Atlantic, the Western Atlantic, the Caribbean Sea, and the Gulf of Mexico), which begins on June 1 and lasts until November 30, and the Eastern North Pacific, which extends from May 15 to November 30.



Storms should be assessed by their strength, location, and the response capacity of the affected government.

Even storms considered "weak" can be as destructive as strong ones, depending on the amount of rainfall they cause. This occurred in 2015 with Tropical Storm Erika, which killed and affected 40% of Dominica's population and damaged nearly 90% of its GDP.



## **IMPACT OF THE 2020 HURRICANE SEASON**

The United Nations calls the 2020 Atlantic hurricane season "a historical record and a tragedy for Central America". <sup>1</sup>

"We are running out of superlatives for this Atlantic hurricane season. It's a record in every sense of the word. Iota is the 30th named tropical storm of the season," said Clare Nullis, a spokesperson for the World Meteorological Organization (WMO)

The Atlantic has had two major hurricane formations in November (ETA and IOTA), at a time of year when the season usually is ending.

Since October, there have been four named storms: Delta, Epsilon, Eta, and lota, all taken from the Greek alphabet because the regular list of storm names has been exhausted.

"The number and strength of hurricanes this year is due to several factors: the absence of an El Niño event, ocean temperature, and atmospheric patterns, all occurring in an era of climate change. We usually talk about "above or below average." Still, these averages have a different meaning than they did 50 to 100 years ago," said spokeswoman Claire Nullis.

lota, the thirtieth storm of the season, touched ground less than two weeks after Hurricane Eta, which was also a category 4 hurricane, landing only 25 kilometers away.

Hurricane lota, the strongest hurricane of the year, touched ground in Nicaragua on November 17 as a powerful category 4 on the Saffir Simpson scale with maximum winds of 250 km/h.

The WMO has called it a catastrophic hurricane with potentially deadly cyclone surges, winds, flash floods, and landslides in Central America and up to 750 mm of rain in isolated locations.

Hurricane Eta's continuing impacts exacerbated flooding and landslides in Nicaragua and Honduras because the two storms hit virtually the same area. Honduras, northern Nicaragua, southeastern and central Guatemala, and southern Belize received 250 to 500 mm of rain; and El Salvador and Panama 100 to 200 mm, with maximum isolated totals of 300 mm.

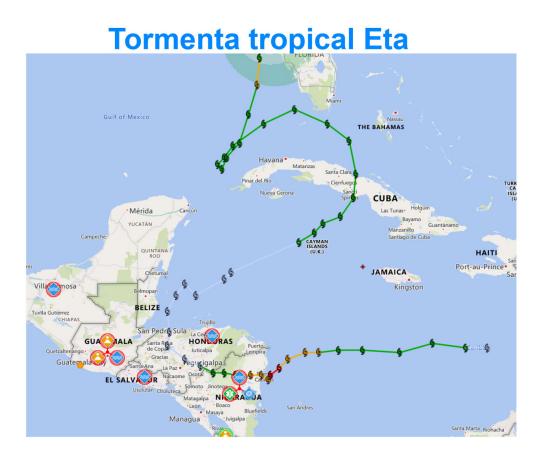
<sup>1</sup> https://news.un.org/es/story/2020/11/1484192

# Routes and main effects of Eta and Iota

Given the threat posed by Hurricane Eta and Iota, CEPREDENAC<sup>2</sup>, a specialized agency of SICA, through the Council of Representatives, activated the Regional Mechanism for Humanitarian Assistance in cases of mid to large scale disaster in the Central American Integration System (MecReg-SICA) to coordinate prevention, mitigation, response and recovery actions, and provide technical assistance and information on the situation.

Hurricane Eta left affected more than 3 million people in Central America; lota also caused considerable regional impacts, especially in Honduras, Guatemala, and Nicaragua.

The following image shows the path of Hurricane Eta.

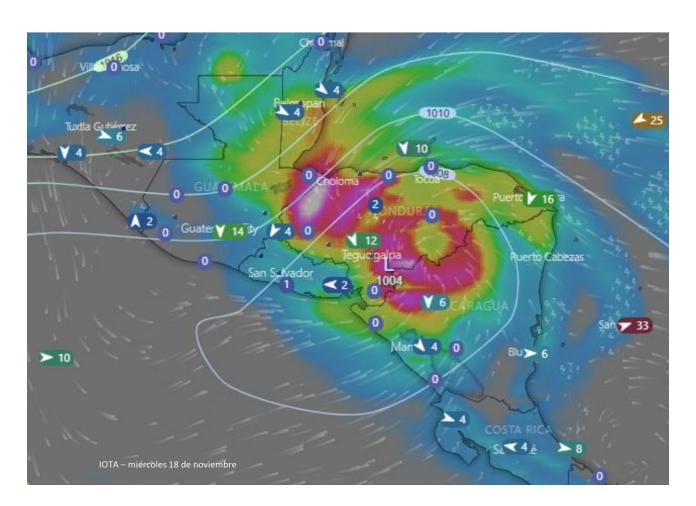


<sup>2</sup> Coordination Center for the Prevention of Disasters in Central America and the Dominican Republic

lota, with its catastrophic winds and deadly swells, had a notable impact on Nicaragua and Honduras. Therefore, after MecReg- SICA activation, a meeting was held with the National System for Disaster Prevention, Mitigation, and Response (SINAPRED) of Nicaragua and the Permanent Contingency Commission (COPECO) of Honduras.

Also, the Regional Committee on Water Resources (CRRH), a specialized body of SICA, monitors hurricanes through the Regional Climate Information Platform, CLIMA Center, a regional portal that contains integrated climate information.

Here is a picture of the areas affected by lota



The Secretary-General of SICA stated that the region is highly vulnerable to the effect of climate change. He said that, given the emergency caused by lota, the consequences of Eta, and the impacts of COVID19, cooperation, coordination, and solidarity from all at the national, regional and international sectors are needed today more than ever to rebuild and recover the Central American Region. "The integration process is our lifeline because it has allowed us to resist all these crises better, as

was the case with the financial crisis of 2008 or Hurricane Mitch in 1998"3.

CEPREDENAC began coordinating humanitarian aid in air and water rescue, health, and humanitarian assistance to Honduras, one of the most affected SICA member countries, which has registered more than 60 deaths and more than 2 million people affected.

According to CEPREDENAC report #30, "Remains of lota", it is reported that the tropical depression is dissipating over Central America.

However, the rains in the region continue to pose a threat, causing flooding and rising riverbeds. Landslides may occur in Nicaragua, Honduras, and Guatemala, which may be strengthened by the soils' current saturation. The tidal waves caused by lota keep affecting much of the Central American coast and the Yucatan Peninsula .

The following table summarizes some of the main effects recorded as of November 16, 2020

# Principales cifras por país

		BLZ	CRI	SLV	GTM	HON	MEX	NIC	PAN
PERSONAS AFECTADAS	<b>Ä</b> (	30 K	325 K	N/A	1.16 M	3.011 M	238.5 K	130 K	3.8 K
PERSONAS ALBERGADAS	(Î)	86	2.05 K	399	17.60K	55.43 K	17.13 K	N/A	2.4 K
PERSONAS FALLECIDAS	°†	0	2	2	46	74	27	2	19
PERSONAS EVACUADAS	13→	N/A	N/A	30 K	177.9 K	179.13 K	1404	30 K	833

Cifras preliminares, considerar que los países mantienen en operaciones de B&R y Evaluaciones de daños. Cifras oficiales de COPECO, CONRED, SINAPRED. GTM: Cifras de albergues oficiales.. Cifras de Panamá de La Estrella al 15 de nov y Cifras de evacuados al 8 de nov..

as of 16 of November

<sup>3</sup> https://www.sica.int/noticias/sica-presidente-de-honduras-juan-orlando-hernandez-y-secretario-general-vinicio-cerezo-llaman-a-la-unidad-y-a-la-reconstruccion-ante-emergencias-en-la-region\_1\_125334.

# COUNTRY ANALYSIS WITH EMPHASIS ON INDIGENOUS COMMUNITIES

## **Belize**

The National Meteorological Services of Belize and the National Emergency Management Organization (NEMO) permanently report on the development and effects of natural phenomena such as hurricanes.

Belize has six districts: Corozal, Orange Walk, Belize, El Cayo, Stann Creek, and Toledo, concentrating its population mainly in the Districts of Belize and El Cayo; followed by the Districts of Orange Walk, Corozal, Stann Creek, and Toledo.

Currently, most of the country's main roads are passable, except the Iguana Creek Bridge and the Low-lying Bridge in Cayo, which are closed.

Rivers slowly increased their flow in the following areas: White Ridge, Hope Creek, Sittee River, Fresh Water Creek, Cabbage Hay Creek (Santa Rosa) in the Stann Creek district.

Water continues to rise in Santa Ana, Big Falls, Blue Creek, and Crique Sarco in the Toledo district. The Mopan River at Calla Creek, Macal River at Cristo Rey, Belize River, Mount Pleasant Creek, J&W Creek, Maya Mopan Creek is also rising in the Cayo District. In the Belize District, water levels increased in the Belize River, Crooked Tree Lagoon, Mexico Creek, and Big Falls Creek. The Rio Hondo and New Rivers in the north keep rising steadily.

lota produced heavy rains in Belize, especially in the south, which caused floods with landslides, especially in the country's mountainous areas.

The most significant risks and flooding were in the Belize District and the Toledo, Stann Creek, and Cayo Districts.

When writing this report, it continues to rain in Belize. Hence, a full assessment of the effects of the hurricanes is not yet possible.

The most affected indigenous communities so far are the Garifuna and the Maya-Mopan. The warning for possible flooding anticipates that Mayan - Q'egchi' communities may be affected.

Approximately 46,000 indigenous people living in the following districts: Belize, Cayo, Stann Creek, and Toledo (2010 figures from the Belize Institute of Statistics) were affected. Hurricane Nana affected all of the above districts; however, Hurricanes Eta and lota have brought heavy rains, and



flood warnings are currently in effect.

There are 369 shelters throughout the country. In rural areas, there is usually only one shelter in each town. The largest areas are municipalities divided into sections or based on constituencies (Belize District). The shelters are designated within that area.

Buildings and homes were damaged: some houses fell; others suffered structural damage such as loss of the roof, leaks, and water damage. Seven structures were fractured at Hopkins, thirteen at Silk Grass, and four houses at Dangriga with roof damage (Source: NEMO Damage Assessment and Needs Analysis (DANA)

Crops such as bananas, citrus fruits, corn, avocado, plantains, and other basic foods and fruits grown in the area were severely damaged.

## Costa Rica

In early November, The National Commission for Risk Prevention and Emergency Care (CNE) in Costa Rica reported heavy rains in the country due to Hurricane ETA's indirect influence on the Pacific Slope, in the North Zone and Central Valley.

As a result of the heavy rains, 79 communities were affected in 33 cantons, with flooding problems along the Pacific slope and the Central Valley, Puntarenas and Guanacaste, specifically in the area of Liberia,

Abangares, Tilarán, and Nandayure.

As a result, three temporary shelters were set up: one in Corredores with ten people and two in Parrita, in Palo Seco and Barrio Vasconia, with eight people each. Also, 45 people from the communities of Coto 41, Central Campesina, and Abrojo in the canton of Corredores moved to their relatives' house.

The National Commission for Risk Prevention and Emergency Care (CNE), together with the Municipal Emergency Committees, set up 18 temporary shelters in 12 cantons for nearly 688 people in vulnerable conditions. The shelters were set up in Corredores (47), Parrita (12), Puntarenas (5), Nandayure (24), Hojancha (15), Paquera (14), Coto Brus (10), Cañas (272), Bagaces (42), Liberia (12), La Cruz (58) and Nicoya (177). All of them have the necessary safety measures to prevent the spread of COVID-19.

Subsequently, the CNE raised a Red Alert for the Parrita and Quepos canals in the Central Pacific region and Golfito in the Brunca Region. According to official data from the Municipal Emergency Committees (CME), 1,361 people were mobilized to 41 shelters in 16 cantons to guarantee their safety and security.

Sixty communities were affected to some degree by flooding or landslides.

Twenty-three communities were most damaged in Cóbano, Coto Brus, Nicoya, Quepos, Parrita, and Garabito, isolated due to the heavy rains, floods, and fallen trees that blocked the passageways. At the same time, 304 landslides were reported in different parts of the territory.

On November 10, President Carlos Alvarado announced the declaration of a State of National Emergency, based on a recommendation by the Board of Directors of the National Commission for Risk Prevention and Emergency Care (CNE). The Board of Directors elevated the request of the declaration of national emergency due to the emergency's impact. The decree will make it easier for institutions to manage the situation. The crisis caused the mobilization of a total of 2056 people to 77 temporary shelters in 23 cantons. A total of 325,000 people are directly and indirectly affected by the rains generated by the emergency.

The Huetar and Cabécar Indigenous peoples have been the most affected, as can be seen below.

# Indigenous Territory of Zapatón, Huetar People

Thirty hectares of corn crops, sixty hectares of bean crops, and twenty hectares of banana and plantain crops were destroyed.

Access to the territory has become extremely difficult due to the fracturing of road sections because of landslides and other damages.

This has led to a new suspension of indigenous community tourism, which was already beginning to recover after the pandemic.

The situation has also caused health services problems, including the cancellation of medical appointments at the Basic Team for Integrated Health Care, which is the front-line human resource unit for the provision of health services of the Costa Rican Social Security Fund.

# Indigenous Territory of Ujarras, Cabecar Village

Several roads have been closed in the communities of Progreso, Santa Ana, Lagasto, and Coquito, where a bridge was also destroyed.

The Indigenous School of the territory is threatened by flooding.

The inter-American highway that crosses the territory is in danger due to the force of the Rio Grande de Terraba.

Several isolated communities have been detected due to the destruction of internal bridges.

Most El Carmen community inhabitants took refuge in their neighboring relatives' homes, and at least 50% of the territories' communities did the same. At least 75 families were isolated in the community of Guanacaste. 50% of the road was destroyed in the community of Santa Maria.

In the Rey Curré Centro community, thirty families had to evacuate.

In La Campana, at least eleven homes were flooded.

As for the impacts on production and food security in the communities:

Fifty percent of the indigenous population grows corn and beans, and all their crops were damaged. The community of Lagarto lost its bean, rice, corn, and other crops. Besides, fifteen families lost their bean crops; three families lost 4 hectares of squash (ayote) crops and their watermelon crops. The community lost around 80 hectares of banana crops.

# **El Salvador**

Although less seriously than neighboring countries, El Salvador was affected by both hurricanes.

The Eta storm caused flooding and other wind-derived impacts. Twenty-two homes were registered as damaged, and two were destroyed.

There were 59 landslides, 3 gullies, 68 complications in communication routes, 19 communities with interrupted drinking water service, and 160 communities without electricity due to fallen trees.

There are also four fallen power poles, two affected communal houses, five collapsed walls, and 68 fallen trees.

Fifty-five shelters were set up to protect the lives of 2,123 people whose homes are located in vulnerable areas.

For its part, lota arrived in El Salvador as a tropical storm, with strong gusts of wind and constant low-intensity rainfall. The authorities counted 813 people evacuated and indicated that they are in 230 shelters in different country areas. At least one person died as a result of the tropical storm.

# Guatemala

The National Commission for Disaster Reduction -CONRED-, keeps responding and looking after the population affected by both hurricanes.

According to CONRED, 144,502 people were affected by ETA up until the early hours of Saturday, November 7, 2020.

Before the first rains caused by this cyclone, CONRED had been assisting the population in the face of 285 incidents, which have left 2,632 people at risk, 8,938 evacuated, 5,780 sheltered, 116 missing, 5 injured, and 12 dead.

In terms of infrastructure, 362 homes are at risk, around 1,882 homes have been damaged, 33 roads are affected, 5 schools are affected, 8 bridges are affected, and 2 destroyed.

The most affected areas have a high indigenous population, as in the departments of Alta Verapaz and Izabal.

The National Institute of Seismology, Vulcanology, Meteorology, and Hydrology -INSIVUMEH-, reported that Hurricane lota degraded to remnants of tropical depression since midday on November 18. However, it kept raining throughout the country.

Derived from the effects of this tropical formation until 7 p.m. on Wednesday, November 18, CONRED reported that 131,298 people were affected, 6,469 evacuated, 4,027 sheltered, 2 missing, and 2 dead.

In terms of damage to infrastructure, around 1,329 homes were reported damaged, 12 roads were affected, 2 roads were destroyed, 12 bridges were affected, 5 bridges were ruptured.

Most of the infrastructure damage occurred in the departments of Alta Verapaz, Baja Verapaz, Izabal, Chiquimula, Quiche, and Zacapa.

There was a landslide in the village of El Carmen Jalauté in Purulhá, Baja Verapaz, in which 2 people were reported dead, 2 disappeared and 2 houses were severely damaged

The authorized shelters operate in the departments of Alta Verapaz, Izabal, Quiché, and Zacapa. Also, families keep evacuating in the previously mentioned departments in compliance with CONRED's informative notice where the refugees are gathering.

People in areas surrounding the tributaries of the Motagua River have been advised to evacuate.

Fourteen rivers in the country flooded due to the rains caused by Hurricane IOTA, and they should increase their water levels in the next few days. The weather report warns that there could be an increase in landslides, mudslides, subsidence, river flooding, and flooding.

Eleven departments were flooded and are still at risk of further damage. The Petén and the Metropolitan Region are on yellow alert . As mentioned above, these regions have the largest number of indigenous people: in the north, over 70%, and in the south, over 50%.

The departments in Regions VII, II, III (North, Northwest, and Northeast) and Region I (Metropolitan) are on Red Alert for landslides.

In quantitative terms, the National Coordination System for Disaster Reduction (CONRED) addressed 248 incidents caused by the rains related to lota c. Landslides, mudslides, subsidence, and floods were re-



corded, affecting 190,634 people. CONRED evacuated 20,058 people. 5,177 were housed in centers that comply with the hygiene standards established in the Coronavirus response procedure, COVID-19, which is included in CONRED's 2020 Specific Rainy Season Protocol.

Concerning infrastructure, the Damage Assessment and Needs Analysis determined that 3,561 homes have moderate to severe damage, 17 highways and 15 bridges have been affected.

Indigenous communities were severely affected, including people killed, disappeared, injured, and homes destroyed, among other things.

Some situations are tragic, such as what happened in 2009, in the village of Quejá, located in the middle of the mountains bordering Alta Verapaz and El Quiche, near the pass known as Los Chorros, where a landslide buried more than 30 people. There was an elementary school that served as a high school in the afternoon, a church, and a soccer field of the Deportivo Quejá. The houses were made of block and sheet metal and others of wood.



On November 5, there was an avalanche as a result of the rains. Five days later, CONRED stopped rescuing, and the municipality declared the area a cemetery. At the beginning of the emergency, President Alejandro Giammattei calculated more than 100 deaths in Quejá. Still, CONRED only counted eight and closed the figure with 88 missing persons in that area.

The farmhouse was left uninhabitable. Those who lost relatives will not bury their dead, and those who are safe were left desolate.

The survivors live scattered among shelters and houses in Santa Elena and Chicuz, both neighboring Quejá. There are no mattresses in the schools and churches that shelter them and not enough clothes for everyone. Food is delivered to them by helicopters. They lost everything. The rain left them without electricity, without bridges, and almost without roads. It is still unknown if they will open new ones or rebuild the damaged ones.

In the Ixil Palop Indigenous People, located in Nebaj, El Quiché, an over-flowing river swept away houses and people, leaving four dead bodies: two of them 20 kilometers downstream. Four people are still missing. In another community, Xeucalvitz, a landslide affected 80 of the 220 families, damaged homes, and buried four people.

Many homes, crops, and drinking water systems have also been destroyed. Bridges and roads have been washed away, destroying many access routes to and within the region. Xeucalvitz was isolated and remains accessible only by air.

The communities believe that the deforestation of logging operations influenced the unexpected impacts.

The initial rescue and support efforts in Nebaj, as in other rural parts of the country, were carried out by locals: Ixil villagers and townspeople. It is the Ixil helping the Ixil, as stated here.

# **Honduras**

Eta hit the country hard with heavy rains in the eastern, central, and northern areas, causing floods and landslides. The airport had to close. The government declared an indefinite red alert in the country's 18 departments y, ordering mandatory evacuations in high-risk areas.

As of November 5, there were two deaths, 934 families affected, 360,170 people were affected, 581 families evacuated, 2,776 people evacuated, 719 families in temporary shelters, 3,539 refugees, and 200 people rescued.

UNICEF said, "This is the worst storm Honduras has seen in decades. The damage will undoubtedly be significant". More than 1.5 million children are being exposed to flood damage.

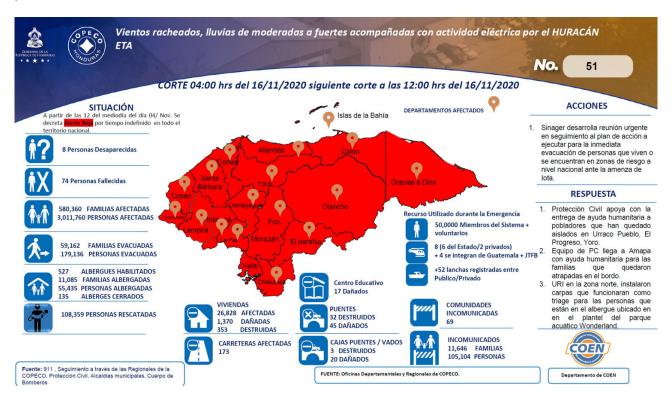
The Honduran Black Fraternal Organization (OFRANEH) reported that Eta left an official death toll of 63 and thousands of victims. Honduras is one of the countries most affected by climate chaos and its consequences.

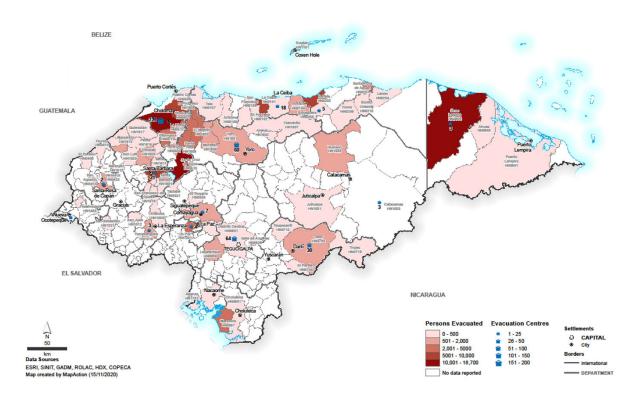


The OFRANEH highlights that the Sula Valley and the Moskitia were most affected by the severe flooding caused by the Eta when merging with the cold front 11, giving rise to endless rain. This forced making discharges from the Francisco Morazán hydroelectric plant, known as the Cajón, located at the country's center.

Something similar occurred at the Patuca III dam, which has not been inaugurated to date, after a long construction process peppered with allegations of corruption at all levels. The Patuca's discharges affected many populations, including indigenous riverine communities that lost their crops.

As of November 16, the following image summarizes some of the impacts of Eta





The National Center for Atmospheric, Oceanographic and Seismic Studies (Cenaos) of the Permanent Commission on Contingencies (CO-PECO) reported that Tropical Stormlota entered Honduran territory, through the southern part of the department of El Paraíso; producing intermittent rains and showers in most of the country, with greater intensity in the northwest, southeast, and center.

lota's effect was mainly concentrated on the departments of Gracias a Dios, Columbus, Atlantis, El Paraíso, and Cortés. The COPECO Minister, Max Gonzalez, assured that "Gracias a Dios reported 15 destroyed houses, 23 roofless homes, and damages in the community's health center ". The Codem reported 636 shelters and 13,320 sheltered families; "government aid has been allocated in the form of over 60,000 food rations and 235,000 masks for those affected". Some 70,000 Hondurans have

<sup>1</sup> http://copeco.gob.hn/?q=Iota-se-convirti%C3%B3-en-tormenta-pero-hay-que-evacuar-zonas-de-riesgo-porque-dejar%C3%A1-lluvias-catastr%C3%B3ficas

had to seek refuge in shelters. <sup>2</sup>

The industrial city of San Pedro Sula in Honduras was also affected by the rains that caused river flooding and landslides, with the local airport completely flooded, according to a video posted on social networks.

Honduran authorities spoke of 14 deaths after confirming that eight members of two families died after a stone and mudslide buried their homes in a village in the mountainous region populated by Lencas Indians near the border with El Salvador. <sup>3</sup>

The most affected Indigenous Peoples have been the Miskitu, Tawas-kaand Pech, the latter in particular on the Patuka Riverbanks. Both the department of Gracias a Dios and the Bay Islands have been severely affected by the hurricanes, and the Creole people are also suffering the consequences of the floods and winds.

In Moskitia, at least five people have died.

The destruction of infrastructure, housing, crops, and even processed areas, has been significant. In many communities, agriculture was seriously affected as well as poultry, pigs, and livestock. Even fishing will have serious recovery problems.

In places that practiced community tourism, such as Brus Laguna, the establishments, which were made of wood, were destroyed.

One of the most affected municipalities has been Brus Laguna, where 17,780 people live, mostly from the Miskitu and Pech villages, the latter in the Las Marías community. The first hurricane caused crop losses, but lota also destroyed at least 70 houses and blew the roofs of another 25. It also destroyed two sports fields and the health center.

Six shelters were established, including one in the municipality of Ahuas and another in Nueva Jerusalem. Now there are 1860 people evacuated and housed there.

However, the problems do not end here.

The rivers keep overflowing. The food situation is dramatic since they do not have any external aid, neither from state institutions nor international organizations.

It is a municipality significantly affected by COVID 19, having 32 deaths

<sup>2</sup> https://www.msn.com/es-xl/noticias/mundo/cifra-de-muertos-por-iota-crece-lentamente-en-centroa-m%c3%a9rica-en-medio-de-esfuerzos-de-rescates/ar-BB1bb4JM?ocid=msedgntp

<sup>3</sup> https://www.msn.com/es-xl/noticias/mundo/cifra-de-muertos-por-iota-crece-lentamente-en-centroa-m%c3%a9rica-en-medio-de-esfuerzos-de-rescates/ar-BB1bb4JM?ocid=msedgntp



out of 700 infected people. They managed to control the virus through traditional medicine. In September and October, they only had one or two cases a day. But now, the crowding of people in the shelters is increasing the contagion. They give out masks, but there are too many people to keep a safe distance.

The communities have proven to have high resilience. Thankfully, all families have large cayucos or duritaras, which carry people and things to high areas. The mayors, who are also indigenous and speak the local

language, have taken the role of leaders. They took preventive measures one day before the arrival of the hurricanes, moving people to the area of Ahuas to protect them, prioritizing the elderly and children. They did it through the waterways, by human traction, without the use of motors.

In this context, the absence of government action is notorious. They do not even maintain contact to obtain information about what is happening. Nor have they received collaboration from international organizations.

# Nicaragua

On November 2, Eta became a hurricane off the coast of Bilwi, evolving that same day to category 4, registering hurricane winds 240 km/h and gusts of greater intensity.

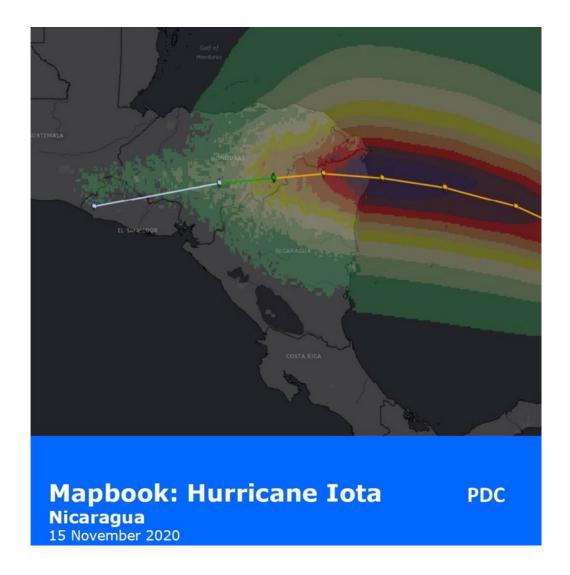
On November 3, it downgraded to category 2, going in the direction of the Mining Triangle. On November 4, it downgraded to a Tropical Storm, and hours later, it entered the Bosawas Biosphere Reserve in San José de Bocay and Wiwilí. By November 5, it degraded to a tropical depression and crossed into Honduran territory.

As a result of the passage of Eta, about 40 communities were flooded, among which are Alamikambam, Yulu Tingni, Walpasiksa, Whounta, Haulover, Lapan in the Caribbean

On the other hand, the Pacific area, specifically the Isthmus of Rivas, had a significant rainfall that caused severe flooding. This was mainly in Tola and San Juan del Sur, where the flood reached a maximum of 400 km2, causing the area between Salinas, El Limón, Las Pilas, and Tola to be practically cut off.

Eta kept going towards the Mining Triangle and Jinotega, the municipalities of Wiwilí and San José de Bocay, which are part of the Bosawas Biosphere Reserve in the Upper Wangky and Bocay Special Regime Zone. These municipalities are made up of the Miskitu Indian Tasbaika Kum (MITK), Mayangna Sauni Bu (MSB), and Kipla Sait Tasbaika (KST) indigenous territories. ETA has affected almost all the national settlements, but the most affected are the North Caribbean, the North Pacific, and the center of the country.

The highest accumulated rainfall in the first four days of November (under the incidence of Eta) was in the Northern Caribbean Coast, with a maximum rainfall of 334.5 mm in Bonanza's municipality, followed by Rosita with 282.0 mm and Siuna with 230.0 mm. On average, nearly 100%



of the anticipated accumulation in four consecutive days of rain was recorded in history for October. On the other hand, in November, the historical norm for the Northern Caribbean is 199.0 mm, which means that during these four days (November 1 to 4), it exceeded by 67% what it should have rained during the whole month.

The damage to the electrical energy and telecommunications cables in different parts of the territory was also one of ETA's effects, causing the interruption of communication, a vital element in keeping the population informed.

Hurricane lota, classified as "catastrophic" and "extremely dangerous," made landfall on Nicaragua's northeastern coast near the city of Haulover, about 45 kilometers south of Puerto Cabezas, with sustained winds of up to 250 kilometers per hour. The cyclone's force caused flooding, the collapse of power lines, and thousands of homes were affected. The number of people affected by lota is slowly increasing in the country as



emergency teams continue their search for the landslides caused by the catastrophic rains that hit the region this week.

The National System for the Prevention, Mitigation, and Attention to Disasters (SINAPRED) reported that lota, the strongest hurricane to hit Nicaragua since records began, hit the Caribbean coast, flooding low areas that were still unstable after the impact of Eta in early November, another cyclone that killed dozens of people in the region.

In Nicaragua, more than 20 deaths were confirmed by the storm so far. Rescue efforts continue after a landslide in the north of the country claimed the lives of eight people.

Recently, Nicaragua's vice president reported three deaths from a new landslide on El Puyú hill, in the department of Matagalpa, caused by soil saturation due to the heavy rains brought by Hurricane lota.

Nicaraguan institutions, both from the central government and, in particular, the autonomous regional government, proved great organizational and preventive capacity and the ability to attend to the inhabitants of the areas at risk. Before the arrival of both hurricanes, they took pre-emptive measures, including evacuating thousands of people to safe locations in the face of the hurricanes' imminent arrival through territories inhabited mostly by indigenous communities.

This measure resulted in the fact that, despite being the country most punished by both ETA and IOTA, the number of deaths is low as the care of human life has been paramount not only in speech but also in practical action.

However, the damage has been considerable, and there is still a lack of elements to make a complete assessment.

Around 160,000 people have had to seek refuge in shelters, 40,000 of them in the municipality of Puerto Cabezas<sup>4</sup> alone. The majority are members of Miskito or Sumu-Mayangna communities.

The following indigenous communities have suffered the complete destruction of their homes and infrastructure: Wawa Bar, Halower, Karata, Kligna, Walpasixa, Kukalay. Sukatpin and Lapan have suffered a partial collapse.

Nearly 60 communities along the Prinzapolka River and the Sumu-Mayangnas communities in the Mayangna Sauni territory have suffered severe flooding damage.

In the Municipality of Waspam 115, communities are still under tremendous flooding in recent years. In Waspma, Kum, Tuskru tara, Waslala, and in the community of Irlaya in Honduras, whose inhabitants have moved to Nicaragua, over 12,000 evacuees cannot return because the floods have not abated.

In the city of Bilwi, there are over 20,000 evacuees. Sixty percent of their homes have been totally or partially destroyed. Similarly, the Bilwi branch of URACCAN University has been partially destroyed.

1195 shelters and 2300 solidarity houses have been set up.

The health posts have provided care to 56,469 people throughout the country.

At least 103,210 people, including workers from government institutions, communities, squad workers, and Sandinista youth, have evacuated due to the emergency. 250 municipal brigades have been formed to clean up waterways, gutters, garbage collection, and preparing damage reports, in which more than 12,000 municipal workers also participate in supply tasks, food distribution, securing drinking water, and general organization.

Both hurricanes have caused enormous damage, which cannot yet be accurately assessed. Thousands of homes were destroyed or seriously affected. So far, 11,250 roofing plans have been drawn up for the same number of families in Bilwi, Puerto Cabezas, in the northern Caribbean, for families whose roofs were affected by the hurricanes.

<sup>4</sup> https://www.msn.com/es-xl/noticias/mundo/cifra-de-muertos-por-iota-crece-lentamente-en-centroa-m%c3%a9rica-en-medio-de-esfuerzos-de-rescates/ar-BB1bb4JM?ocid=msedgntp



The Regional Hospital of the Northern Caribbean Coast Autonomous Region was completely destroyed, as well as the National Technological Institute, which also seriously affected the equipment of the schools of electronics, gastronomy, dressmaking, carpentry, mechanics, and others.

The Wawa River ferry has been out of service for several days. The city's 800-meter-long pier was destroyed, broken into three segments.

Natural areas were also seriously affected, such as the BOSAWAS biological reserve and the Miskitus Cays protected area, which was totally destroyed. This is an archipelago with an area of 27 km 2, located in the sea off the northeastern Caribbean coast of Nicaragua. There, 1,650 people evacuated from the keys prior to the impact of the hurricanes. The Miskitus Cays and their Immediate Coastal Strip is a RAMSAR site, considered a Wetland of International Importance by UNESCO.

By September, the farmers had harvested their primary grain harvest, mainly rice, which they had already dried and macerated. With the hurricanes, this production was destroyed along with the premises where they store their produce.

If we fail in preparing for planting in November and December, as well as harvesting in March and April, regional food safety will be severely affected.

Fishing areas were also affected.

Artisanal fishing represents 80% of the fishing catch in the region, damaged by the loss of 15 collection centers, pangas; outboard motors; pots; trammel nets; canoes, diving tanks, and others.

As for industrial fishing, 8 collection centers and the Tilapia fish farm in Krukira were lost.

In general terms, the damage caused by hurricanes ETA and IOTA could be around 3% of the country's GDP.

As of November 12, the preliminary assessment of ETA damage was \$178 million. It damaged 1,890 homes, health infrastructure, schools, the fisheries, and the national road network that already needed \$107 million for repairs. At the time, losses were 1.5% of GDP, and the situation changed rapidly with Hurricane IOTA, which had a higher radius and intensity.

# Panamá

With Eta's arrival, Panama declared a red alert in the western provinces of Chiriqui and Bocas del Toro and in the indigenous Region of Ngä-Bugle, where Eta left 17 dead 68 missing, and millions of dollars in losses, according to the Minister of Public Security.

In Chiriqui, the storm caused the most damage, with the destruction of homes, roads, bridges, and crops. However, other western provinces such as Bocas del Toro and the Ngäbe Bugle indigenous region also suffered heavy losses.

Faced with these facts, the government declared a state of emergency in seven provinces of the country and the Ngäbe Bugle region. Besides, it approved 100 million dollars "that will be destined immediately to attend to the situation in those regions," indicated the Panamanian presidency in a communiqué

The situation is "critical" in terms of food production and infrastructure, which proves "the urgent need" to rehabilitate access roads, provide medical supplies, food, and basic necessities to the affected population, the communiqué states.



Although authorities have rescued affected people in several regions, the district of Tierras Altas in the western province of Chiriquí, bordering Costa Rica, is the most affected, with entire communities isolated by flooding or destroyed roads. According to locals, crops have been washed away in the Highlands, Panama's largest vegetable and legume producer, by the rains, the region's most frequent source of water in 50 years.

In response to the arrival of lateral impacts from lota, the government officially reported two fatalities, the death of a minor in the Ngäbe Bugle region and a man in the province of Los Santos. Similarly, there is a missing child of 8 years old in Soloy, district of Besikó in the Ngäbe-Buglé region.

With lota, the critical points in floods and landslides in the country rose to 94, of which 32 are in Chirichi, 25 in the Ngäbe Bugle region, and 37 in the province of Veraguas.

The number of evacuees in the Western Region of the country is 348, while members of SINAPROC and the Joint Task Force are bringing humanitarian assistance to hundreds of families affected by the floods. The items include mattresses, bags with food from Plan Panama Solidario, bottled water, and disposable diapers for children and adults, in addition to installing solar panels in schools, dining halls, and the Health Center in the towns of Boca de Remedios, Cascabel, and Soloy, in the Ngäbe-Buglé region.

For the first time in many years, a hurricane or tropical storm seriously affected indigenous communities such as the Ngäbe-Bugle region, where there were floods that destroyed houses and roads. Also, in the Emberá Wounaan region. There have been deaths, although precise figures are not yet available.

The rains recorded since November 2 have generated flooding, landslides, collapse, and subsidence of roads in several districts of the Ngäbe Bugle region, with the Soloy District being the most affected, among others the District of Mironó, District of Noleduima, and Müna District. At the moment, seven shelters have been installed: in Soloy (Soloy High School, Bahia Temple, Bahia School), Boca de Remedio School, the Peanut Board, Cascabel School, and the Baptist Church of Boca del Monte in the district of Noleduima.

As of November 11, 1049, indigenous people had been registered as affected.

So far, this region is not receiving help because the road is destroyed, and they are asking for help to be able to reach the community and provide food, clothing, and other things for this region.

# **CONCLUSIONS AND RECOMMENDATIONS**

## **Conclusions**

The hurricanes and storms affecting Central America and the Caribbean are increasingly powerful, resulting in higher rainfall and intensified storm surges due to climate change. The rising frequency and intensity of storms in the region reduces recovery time between events.

The collective impact of recurrent climate crises, particularly prolonged droughts followed by seasonal flooding, results in complex and multidimensional humanitarian needs.

Floods are one of the most costly disasters due to the wide range and extent of damage caused, from damage and loss to physical and environmental assets, production in all economic sectors, to the loss of life and disease of many people.

In this context, the 2020 hurricane season has been described by the UN as a record and a tragedy for Central America.

The floods and landslides in Nicaragua and Honduras were aggravated by the continuing impacts of hurricanes ETA and IOTA that hit virtually the same area. Honduras, northern Nicaragua, southeastern and central Guatemala, and southern Belize received 250 to 500 mm of rain, magnitudes far above the averages expected at this time. Also in Costa Rica, El Salvador and Panama, water records were high, especially in certain areas of those countries.

Hurricane ETA left more than 3 million people affected in Central America; with similar proportions, IOTA also caused considerable impacts in the region, especially in Honduras, Guatemala and Nicaragua.

Dozens of people died, many were reported missing, thousands were evacuated to shelters and there was widespread destruction of infrastructure, plantations and protected areas, among other impacts.

The information released by the States in general does not disaggregate data with ethnic indicators, but the evidence gathered by the Regional Indigenous Platform and FILAC is convincing enough to show that the region's indigenous peoples and communities have been seriously impacted by both hurricanes, as described throughout this report.

It is important to emphasize that the storms arrive at a region marked by its historical socioeconomic deficiencies, enormous inequality and the expansion of the pandemic, all of which creates conditions for the expansion of the ravages of this type of natural phenomenon, especially in the populations and communities with the highest levels of vulnerability.

If there were already serious problems of food security for the population in general and for many indigenous communities in particular, the situation is now worsening, but it also seriously conditions the immediate future by virtue of the floods and the destruction of basic infrastructure for the agricultural production cycle and commercial exchanges that are essential for the survival of thousands of people.

As the pandemic has shown, the health facilities closest to indigenous communities do not meet the minimum conditions required by the current context, without providing access to quality and culturally relevant medical care.

In addition, it will be difficult to carry out evacuation measures and to urgently set up temporary shelters in conditions that ensure physical separation, hygiene measures and other preventive actions against the expansion of COVID 19.

Although the competent institutions in risk and disaster prevention and attention are acting, in general the situation has overcome them and they present many limitations to be able to respond to the urgent demands. This situation is more evident in the rural areas farthest from urban centers where, in general, the state services have great deficiencies even in times of normality.

But it is also worth noting that, as we have detected in their struggle with COVID 19, the communities are once again demonstrating their enormous capacity for resilience in facing this new challenge that has added to all the previous problems they already had.

Through their own organizational structures, their great stock of traditional knowledge, and the exercise of collective rights, they are carrying out concrete actions of solidarity, support for the most affected people, and the use of ancestral health systems, which has allowed for a notable decrease in the negative effects of the hurricanes.

## Recommendations

In accordance with the evidence gathered and the priorities indicated by the indigenous organizations consulted, the following primary recommendations should be made, both to state institutions and to international organizations and other actors involved in this issue.

- A rapid needs assessment is required based on the demands of the affected communities themselves. The requirements are multiple and diverse since the communities were not impacted in the same way nor do they have the same resources to address them.
- It is essential to support the indigenous communities through actions that allow them to address the most urgent problems, ensuring, among other things, medical care, food and housing for those who have been most affected by the rains, floods and landslides.
- As the fight against the pandemic has shown, it is essential that both in the design and implementation of emergency and long-term actions that are adopted, the widest participation is provided to indigenous peoples and communities, because without this it is very difficult that the measures adopted are culturally relevant and can be implemented with the desired effectiveness.
- At this critical time in the region, as the Central American Integration System (SICA) has maintained, it is necessary to enhance institutional coordination with indigenous peoples in order to counteract the impact of climate change and promote the reconstruction and recovery of the region.
- National authorities must establish mechanisms for dialogue and coordination of actions with regional bodies, social organizations and Indigenous Peoples that will make it possible to respond in a timely manner to the serious present and future impacts of hurricanes in the region.

From the Regional Indigenous Platform and FILAC, we express our concern for the serious situation that the region, and especially the Indigenous Peoples and communities, are going through, while

Within this framework, we make available to state authorities and Indigenous Peoples, the information that we collect through different sources, as well as the possibility of facilitating spaces for dialogue that allow the identification of the needs of affected communities, as well as the

actions to be taken to respond to them, as well as the monitoring and evaluation of their results.

We have the full conviction that the sum of efforts between state authorities, international organizations, social organizations and Indigenous Peoples will allow us to respond in the best way possible to the consequences of Hurricane ETA, as well as to better prepare ourselves for future natural phenomena that will repeatedly strike our region.

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Belize	Melissa Zuniga	National Garifuna Council Belize
Costa Rica	Donald Rojas	National Indigenous Board of Costa Rica. MNICR
Guatemala	Hector Tuy	Naleb Indigenous Organization
Honduras ras.	Edy Mcnab	Confederation of Indigenous Peoples of Hondu-
		CONPAH Ingwaua Association.
	Teonela Paisano Wood	Mayor of Brus Laguna
Panama	Marcelo Guerra	National Coordinator of Indigenous Peoples of
		Panama. COONAPIP

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