# Case Study:

# Effects of Hurricanes Eta and Iota in Honduras

**First workshop on addressing loss and damage**

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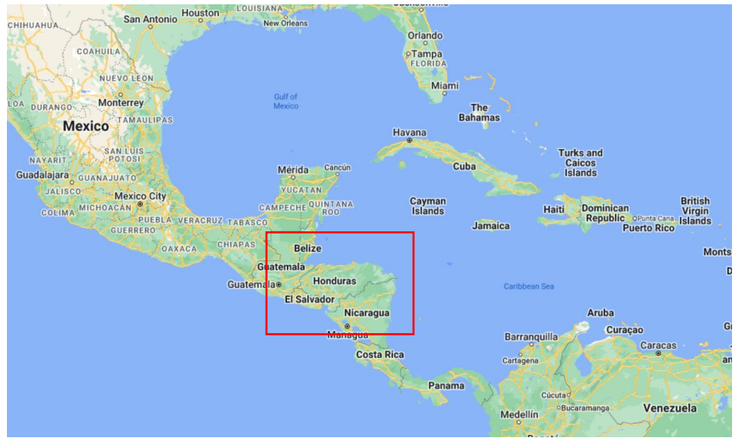
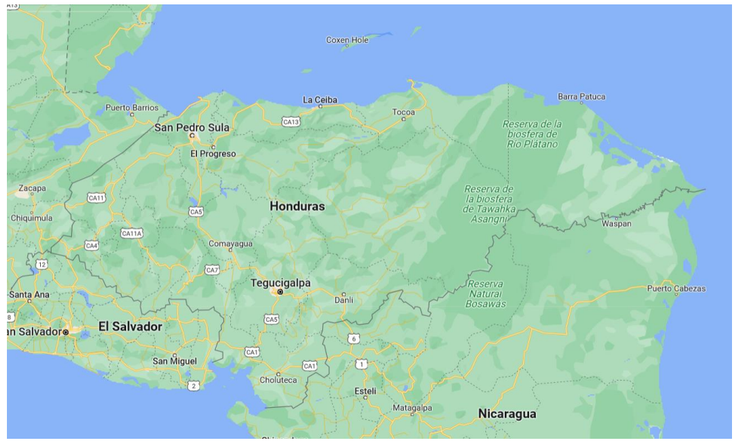
# Honduras

- Honduras is located in Central America, surrounded by the Caribbean Sea (Atlantic) to the north and east, and the Gulf of Fonseca (Pacific) to the south.
- Between 1998 and 2017, Honduras was in the top 3 most affected and vulnerable countries to extreme weather events by the Global Climate Risk Index[1].
- In 2019, 52.1% of the Honduran population was living in poverty, out of which 19.9% were in extreme poverty[2].
- For 2020, a 7.4% drop in GDP was expected due to the effects of the COVID-19 pandemic.




[1] GermanWatch. Global Climate Risk Index 2019.
[2] Economic Commission for Latin America and the Caribbean (ECLAC)

# Hurricanes Eta and Iota

- In 2020, the region experienced the most active hurricane season in history, recording 30 storms, more than double the anual average. Of the 30 storms, 13 were hurricanes, with 6 being classified as major hurricanes.
- In November 2020, Honduras was hit by hurricanes Eta and Iota within a span of two weeks.
- **Eta**: reached category 4, weakened to tropical storm. Left an estimated 380 to 635 mm of rain nationwide.
- **Iota**: reached category 4 and 5, weakened to tropical storm. Left an estimated 500 to 750 mm of rain in the northern part of the country.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), Interamerican Development Bank (IDB). May 2021. "Evaluación de los efectos e impactos de la tormenta tropical Eta y el huracán Iota en Honduras".

# Effects of Eta and Iota in Honduras

- ECLAC carried out a study estimating effects of both Eta and Iota in Honduras (DALA)
- Total estimated effects caused by tropical storm Eta and hurricane Iota were approximately USD 2.1 billion.
- Damages represented 44% of total effects; losses, 52%; additional costs, 4%.
- Private sector suffered 69% of the damages and 97% of total losses.

| Total Effects of Eta and Iota (in millions of USD) | | | |
|---|---|---|---|
| | **Public** | **Private** | **Total** |
| Damages | 282.34 | 633.68 | **916.02** |
| Losses | 31.95 | 1,062.01 | **1,093.97** |
| Additional Costs | 51.26 | 43.43 | **94.69** |
| **Total** | **365.56** | **1,739.12** | **2,104.67** |
| *Source: ECLAC (2021)* | | | |

Source: Economic Commission for Latin America and the Caribbean (ECLAC), Interamerican Development Bank (IDB). May 2021. "Evaluación de los efectos e impactos de la tormenta tropical Eta y el huracán Iota en Honduras".

# Effects of Eta and Iota in Honduras

- Majority of effects were in the productive sector, 68% of total effects, followed by social sector, 18%
- 99% of total effects in the productive sector occured in the private sector.
- 80% of the total effects in infrastructure occured in the public sector.

| Total Effects of Eta and Iota by Sector (in millions of USD) | | | |
|---|---|---|---|
| **Sectors** | **Public** | **Private** | **Total** |
| Social | 117.15 | 261.57 | **378.73** |
| Productive | 0.97 | 1,433.51 | **1,434.48** |
| Infrastructure | 176.13 | 44.03 | **220.17** |
| Environment | 71.30 | 0.00 | **71.30** |
| **Total** | **365.56** | **1,739.12** | **2,104.67** |
| *Source: ECLAC (2021)* | | | |

Source: Economic Commission for Latin America and the Caribbean (ECLAC), Interamerican Development Bank (IDB). May 2021. "Evaluación de los efectos e impactos de la tormenta tropical Eta y el huracán Iota en Honduras".

# Effects of Eta and Iota in Honduras

- Productive sector: 93% of losses; 44% of damages.
- Commerce and industry: 78% of productive damages; 62% of productive losses.
- Agriculture and livestock: 18% of productive damages; 27% of productive losses.
- Losses and damages in these subsectors were from ***private sector***.
- Social sector: housing represented 74% of damages.

- **Human dimension: the sources of income of families and the places where they live were the most affected**

**Total Effects of Eta and Iota by Subsectors (in millions of USD)**

| Sectors / Subsectors | Damages | Losses 2020 | Losses 2021 | Total Losses | Additional Costs | Total |
|---|---|---|---|---|---|---|
| **Social** | **318.54** | **1.01** | **0.69** | **1.70** | **58.50** | **378.73** |
| Education | 32.92 | 0.00 | 0.00 | 0.00 | 22.30 | 55.22 |
| Health | 50.62 | 0.89 | 0.44 | 1.33 | 5.82 | 57.77 |
| Housing | 234.99 | 0.12 | 0.24 | 0.36 | 26.22 | 261.57 |
| Cost of the emergency | 0.00 | 0.00 | 0.00 | 0.00 | 4.16 | 4.16 |
| **Productive** | **399.61** | **791.63** | **226.02** | **1,017.66** | **17.21** | **1,434.48** |
| Agriculture and livestock | 70.78 | 204.41 | 69.12 | 273.53 | 12.60 | 356.91 |
| Tourism | 19.11 | 78.98 | 29.21 | 108.18 | 0.00 | 127.29 |
| Commerce and industry | 309.73 | 508.24 | 127.70 | 635.94 | 4.61 | 950.27 |
| **Infrastructure** | **134.56** | **34.42** | **32.24** | **66.66** | **18.95** | **220.17** |
| Electricity | 4.40 | 5.90 | 0.00 | 5.90 | 0.24 | 10.54 |
| Water and sanitation | 46.94 | 0.32 | 0.00 | 0.32 | 0.40 | 47.67 |
| Transportation | 82.77 | 27.31 | 32.24 | 59.55 | 18.30 | 160.62 |
| Telecommunications | 0.44 | 0.89 | 0.00 | 0.89 | 0.00 | 1.33 |
| **Environment** | **63.30** | **8.00** | **0.00** | **8.00** | **0.00** | **71.30** |
| **Total** | **916.02** | **835.06** | **258.95** | **1,094.01** | **94.65** | **2,104.67** |

*Source: ECLAC (2021)*

Source: Economic Commission for Latin America and the Caribbean (ECLAC), Interamerican Development Bank (IDB). May 2021. "Evaluación de los efectos e impactos de la tormenta tropical Eta y el huracán Iota en Honduras".

# Impacts of Eta and Iota in Honduras

- Impacts of both events directly and indirectly affected 3.9 million people (more than 40% of the population).
- Primary affected population: 95 deceased, 24 injured, 10 missing, 437,212 evacuated, and 96,640 sheltered.

- ECLAC report details impacts in each sector and subsector.
- ECLAC estimated the drop in GDP at 8.2%, attributing 0.8 percentage points to the effects of Eta and Iota

Source: Economic Commission for Latin America and the Caribbean (ECLAC), Interamerican Development Bank (IDB). May 2021. "Evaluación de los efectos e impactos de la tormenta tropical Eta y el huracán Iota en Honduras".

# International Assistance and Humanitarian Aid

- By 1 December 2020, Honduras had received USD 7 million in international aid by several countries and organizations.
- A further USD 11.4 million had been pledged by other countries and organizations.
- Resources were channeled through different institutions and programs, such as the World Food Programme and the Red Cross, aiding with emergency shelters, food, supplies of critical assistance and protection for most vulnerable communities.

| Summary of International Aid Received and Pledged By 1 December 2020 | |
|---|---|
| **Status** | **USD** |
| Received | 7,058,433.50 |
| Pledged | 11,426,465.44 |
| **Total International Aid by 1 December 2020** | **18,484,898.94** |
| *Source: ECLAC, 2021 citing data from the Ministry of Finance* | |

Source: Economic Commission for Latin America and the Caribbean (ECLAC), Interamerican Development Bank (IDB). May 2021. "Evaluación de los efectos e impactos de la tormenta tropical Eta y el huracán Iota en Honduras".

# Financing Post-Disasters

- Government made efforts to seek financial resources from various sources and financial instruments.
- Between 2020-2022, the Government expended USD 124.91 million from its National Treasury to aid in recovery, rehabilitation and reconstruction, representing 49% of accrued figures.
- Domestic credit represented 29% of financing.
- External credit represented 16% of financing.

| Sources of Financing in Public Budget 2020-2022 (in millions of USD) | | |
|---|---|---|
| **Source** | **Budgeted** | **Accrued** |
| External Credit | 51.91 | **42.32** |
| National Treasury | 154.24 | **124.91** |
| Donations | 4.28 | **3.69** |
| Domestic Credit | 76.50 | **75.19** |
| Budget Support | 10.56 | **10.48** |
| **Total** | **297.49** | **256.60** |
| *Source: Ministry of Finance* | | |

Source: Ministry of Finance

# Financing Post-Disasters

- Resources within the public bugdet were allocated to address various aspects of the emergency.
- Between 2020-2022, financial assistance to families affected represented 44% of the resources for emergency attention.
- Rehabilitation and repair of infrastructure damage represented 30% of the resources.
- Resources allocated to the emergency by the government only represent 12% of estimated losses and damages at the national level, leaving an 88% gap in financing.

| Emergency Attention Categories Financed by the Government (in millions of USD) | |
|---|---|
| **Category** | **Total** |
| Rehabilitation and Repair of Infrastructure Damage | 21.34 |
| Financial Assistance | 31.30 |
| Housing Cleaning and Restoration | 1.91 |
| Food Supply | 9.03 |
| Rescue and Evacuation Activities | 4.24 |
| Support for Farmers | 2.66 |
| **Total** | **70.48** |
| *Source: Ministry of Finance* | |

Source: Ministry of Finance

# Lessons learned

- Housing, commerce and industry, and agriculture and livestock reported the highest damages and losses. Integrally, this comes to mean that **the sources of income of families and the places where they live were the most affected**. This placed an additional economic burden to families, 52.1% of which live in poverty.

- Continued impacts in the agriculture and livestock sectors by extreme weather events like Eta and Iota become an economic burden for the State, as this leads to agricultural subsidy policies.

# Lessons learned

- The government had to redefine the purpose and prioritized areas of the loans that were planned with MDBs (WB, IDB). Loans that were initially planned to go towards other sustainable development areas had to be redirected to address the emergency, rehabilitation, recovery and reconstruction after both Eta and Iota. Clear example of how a country like Honduras is forced into climate-induced debt.
- Given Honduras' geographical location, the country will always be in the pathway of extreme weather events. The effects of these events have a negative impact on the country's development. Creating true adaptive capacities and climatic resilience becomes increasingly harder as these extreme weather events become more frequent and more intense. Increased funding that does not lead to further debt is necessary to create these adaptive capacities, and to be able rehabilitate, recover and reconstruct in a truly resilient manner.

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# Thank you!