

Characterization of the Dry Corridor in Central America's Northern Triangle

Executive Summary



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General description

The Central American Dry Corridor, or CDC, **extends from southern Chiapas in Mexico to Guanacaste in Costa Rica**, primarily in low-lying and tropical dry forest zones along the Pacific coast. Some 1,600 kilometers long and 100-400 kilometers wide, the CDC covers 30% of Central

American territory. Of this, 80% is located in the Northern Triangle countries of Guatemala, Honduras and El Salvador.

The Northern Triangle Dry Corridor, or NTDC, is home to approximately **22.5 million people**,

62% residing in urban areas and 38% in rural zones. Most of Central America's most densely populated municipalities and three of its capitals (and most populous cities) are located in the NTDC: Guatemala City, San Salvador and Tegucigalpa.



CDC risk from climate change

Hydrometeorological pattern

The corridor's dual hydrometeorological pattern of alternating dry and wet seasons is accentuated by the **El Niño – Southern Oscillation phenomenon and climate change**, resulting in a period of **intense drought** followed by one of **torrential rains and floods**. Nevertheless, water shortages

predominate in the corridor, along with prolonged dry periods lasting more than three months.

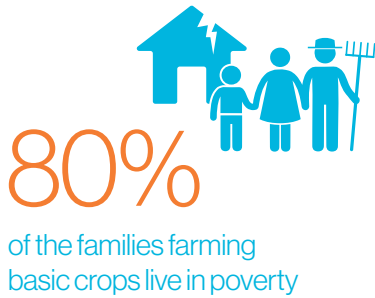
Drought and excessive precipitation **affect** the two main harvesting cycles that comprise the productive strategy of **more than a million**

families who live in the corridor and practice subsistence farming of basic crops. The recurring droughts affect **the first harvest** during the first half of the year, while intense rains with their accompanying floods and mudslides affect the **last harvest** in the second half of the year.



Drought (first harvest)

Excessive precipitation (last harvest)

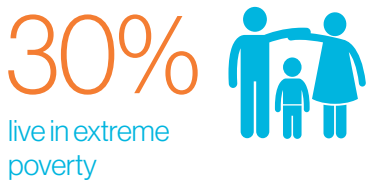


Impacts on economic activity and food security

A survey by Consorcio de Organizaciones Humanitarias¹ established that **almost a fifth of all households in the Guatemala and Honduras Dry Corridor experience food insecurity.**

In the medium and long terms, the well-being of these households is compromised by the very emergency strategies they employ to alleviate vulnerability:

- **Taking on burdensome forms of debt.**
- **Selling livelihoods.**
- **Reducing food intake.**



Effect of climate change on the CDC

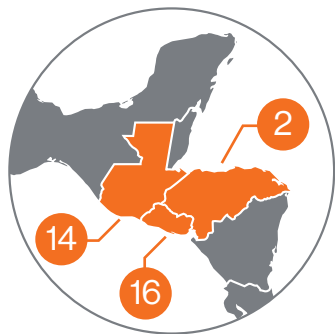
In the Latin American context, the poorest countries and regions are more exposed to climate shocks associated with high temperatures, as occurs in the Northern Triangle countries.

The number of storms and floods increased **500%** from 1991 to 2015, compared with the 1966-90 period.

In Central America, **82%** of climate events are of this nature.

In 2020 alone, Tropical Storms Amanda and Cristobal and hurricanes Eta and Iota adversely affected some **6.5 million people** in the Northern Triangle countries.

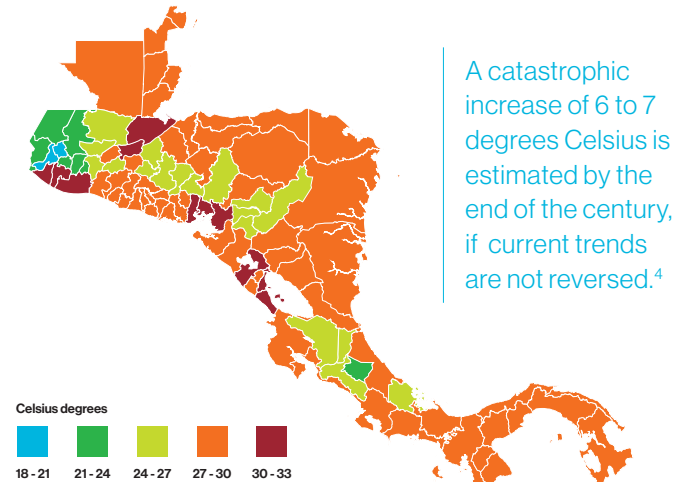
Global Climate Change Risk Index (1998-2017)



- ✓ Honduras ranks **second in the world** of countries affected by climate impacts.
- ✓ Guatemala is in **14th position.**
- ✓ El Salvador is **16th.**²

According to the Prevalent Vulnerability Index, after Haiti, these three countries are the most vulnerable in Latin America and the Caribbean.³

Average temperature in the CDC by 2100 if the current trends are not reversed



¹ Consorcio de Organizaciones Humanitarias, Informe de situación de familias en inseguridad alimentaria, (s.l. COH, 2020), 24, www.siinsan.gob.gt/siinsan/wp-content/uploads/13-echo_ca4_2020_informe_situacion_familias_en_inseguridad_alimentaria_0.pdf | ² German Watch, "Global Climate Risk Index 2019 Who Suffers Most from Extreme Weather Events?" https://germanwatch.org/sites/default/files/Global%20Climate%20Risk%20Index%202019_2.pdf | ³ IDB. "Riskmonitor", IDB, accessed June 10, 2021, www.riskmonitor.iadb.org/es/home | ⁴ Based on Julie Lennox, Diana Ramirez y Jaime Olivares, Cambio climático en Centroamérica: Impactos potenciales y opciones de política pública (México: CEPAL, 2015), 36, "www.cepal.org/es/publicaciones/39149-cambio-climatico-centroamerica-impactos-potenciales-opciones-politica-publica" www.cepal.org/es/publicaciones/39149-cambio-climatico-centroamerica-impactos-potenciales-opciones-politica-publica

Socioeconomic precariousness in a context of risk

The economic dynamics of Northern Triangle countries create **structural weaknesses leading to poverty, vulnerability and intensive migration**.

An elevated occupational deficit makes the three countries net expellers of labor, which in turn drains the productive capacity of their populations.

Most work is **informal**:

- **Honduras and Guatemala** 80%
- **El Salvador** 68.5%

This corresponds with **low economic growth** during the past 40 years.

General poverty:

- 70.9% in Honduras
- 65.8% in Guatemala
- 42.8% in El Salvador

Extreme poverty:

- 34.7% in Honduras
- 23.4% in Guatemala
- 9.6% in El Salvador

These indices are associated with the high number of households practicing **subsistence agriculture**, whose productive and social characteristics place them in socioeconomic vulnerability:

- **Reduced size of parcels.**
- **Traditional, low-productivity practices.**
- **Limited access to credit and agricultural inputs.**

These households frequently need to supplement their income as seasonal workers on large plantations, particularly coffee or sugar cane.

In addition, **57% to 75%** of family expenditures are for food.

On average, household income covers less than 50% of expenses.



Impact of the pandemic: Ramping up the problems

GDP for 2020 was expected to decline

- **6.3%** in Guatemala
- **11%** in Honduras and El Salvador

Oxfam and other humanitarian organizations found that severe food insecurity in the CDC rose 12% between August 2019 and June 2020.⁵



In addition, country containment measures caused household income to shrink as much as 20% in the CDC because of the barriers restricting mobility and different economic activities.

These restrictions, coupled with food hoarding and commercial speculation, raised the prices of essential products.

According to forecasts by ECLAC,⁶ **higher unemployment will increase extreme poverty in the Northern Triangle**, as shown here (national data):



- **Guatemala:** from **19.8%** to **22.7%**
- **Honduras:** from **18.7%** to **22.8%**
- **El Salvador:** from **7.4%** to **11.9%**

Inequalities in gender relations



Effects on **women** will intensify because **the pandemic increases household care work** for minors, the elderly, people with disabilities, and others.

Additionally, **7 of every 10 households experiencing food insecurity are single-parent, the majority headed by women.**

Demand for medical services exacerbates household economic crises in countries with low investment in public health. The significant cost of such expenditures is a burden on the family budget, mainly in Guatemala and Honduras.

⁵ OXFAM, "Aquí lo que hay es hambre". Hambre y pandemia en Centroamérica y Venezuela. (s.l., OXFAM Internacional, 2020), 9, https://oi-files-cng-prod.s3.amazonaws.com/lac.oxfam.org/s3fs-public/file_attachments/Aqui%CC%81%20lo%20que%20hay%20es%20hambre.%20Hambre%20y%20pandemia%20en%20Centroame%CC%81rica%20y%20Venezuela.pdf | ⁶ ECLAC, "Addressing the Growing Impact of COVID-19 with a View to Reactivation with Equality: New Projections." (Santiago: CEPAL, 2020), 11, https://repositorio.cepal.org/bitstream/handle/11362/45782/4/S2000471_es.pdf **Photo 2** Mason assistant Jose Menjivar works on the construction of a house after three months of being unemployed. / Habitat for Humanity Honduras / Luis Madrid.

The phenomenon of migration associated with CDC vulnerabilities

From 2007 to 2017, migration to the United States from the Northern Triangle has grown some 25%,⁷ more than any other sending region in the world.



Reasons for migrating

- **Economic crisis.**
- **Unemployment.**
- **Poor working conditions.**
- **Very low incomes affecting the population in their place of origin.**

Incidence of drought in Northern Triangle countries, and its translation into food insecurity, is very directly correlated with increased migratory flows, including a greater influx of underage migrants unaccompanied by adults.



Flows from the three Northern Triangle countries reflect a pattern of irregular migration:

- Over **50%** of those arriving in U.S. territory.
- Less than **25%** of migrants manage to settle in the U.S.
- In 2019, immigration authorities returned almost **193,000** people.⁸

Return to countries



This worsens the very economic condition that spurred their departure, since the high costs of out-migration usually entail **economic sacrifices** (selling livelihoods, burdensome debt) with no compensation when the migratory attempt fails.



When violence motivates migration, as particularly occurs in El Salvador, returning means **a situation of great personal risk, prompting people to relocate when returned to their country of origin.**



The national effort to reinsert returnees **can require up to 1%** additional growth in GDP.

⁷ "Mexicans Decline to Less Than Half the U.S. Unauthorized Immigrant Population for the First Time", Pew Research Center, accessed May 29, 2021, <https://www.pewresearch.org/fact-tank/2019/06/12/us-unauthorized-immigrant-population-2017/> | ⁸ El Colegio de la Frontera Norte et al. Boletín de Indicadores de la Encuesta de Migraciones de la Frontera Sur de México. Informe de resultados 2019, (Tijuana: COLEF, 2020) 26 y 36, <https://www.colef.mx/emif/datasets/indicadores/Emif%20Sur%20Indicadores%20Trimestrales%20Julio-Septiembre%202020.pdf>

The housing deficit



Northern Triangle countries show especially high levels of qualitative deficit, equal to or greater than the Central American average.

Sources specifying regional housing deficits haven't been found, although there is data at a national level that indicate the housing realities in this context:

TABLE 1⁹

Country	Housing deficit		
	Quantitative	Qualitative	Total
El Salvador 2014	191,810	1,147,699	1,339,509
Guatemala 2014	475,703	1,747,807	2,223,510
Honduras 2013	43,050	1,011,190	1,054,240
Total	710,563	3,906,696	4,617,259

Types of qualitative deficit:

- **Poor quality of housing materials.**
- **Insecure tenure.**
- **Deficient access to water and sanitation services.**

Causally, these deficits are usually associated with low incomes and such factors as disasters, limited access to credit and the negative effects of out-migration.



Because of the significant presence of urban settlements in the CDC, manifestations of such housing deficits take an accentuated profile in this context. A census of precarious urban settlements in Honduras¹⁰ revealed aspects that, while not generalized, nonetheless indicate such conditions are repeated in other Northern Triangle urban areas:

- Prevalence of dirt roads that jeopardize health and limit transportation services.
- Housing built of cast-off materials, exposing households to the extreme climate events characteristic of the CDC and to high rates of respiratory, infectious and parasitic disease.
- Water from cistern trucks being sold at prices 10 times higher than from public water supply networks. Even when obtained from unsafe sources, water for consumption purposes is untreated, and there is a near-total absence of sewerage systems to eliminate wastewater.
- Frequent use of firewood or charcoal employing deficient technologies and endangering respiratory health, especially of women and minors.

⁹ Table 1 Based on Porfirio Guevara and Ronald Arce, Estado de la vivienda en Centroamérica, (San Jose: Habitat for Humanity-LAC, 2016), 26-41, http://www.miu.buap.mx/infoRNIU/ene17/2/estado-vivienda-centroamerica_pguevara-rarce.pdf | ¹⁰ TECHO, Censo de Asentamientos Informales. Casco Urbano Distrito Central 2018, (Honduras: TECHO, 2018) <http://datos.techo.org/dataset/8efe820f-fda2-4ff6-a0a5-6c28b57596e6/resource/5e75ac50-44c9-4450-ab8b-872ba939bbc4/download/informe-censo-de-asentamientos-informales-casco-urbano-dc-honduras-2018-interactivo-light.pdf>



Water

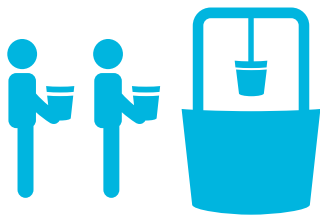
Droughts in the CDC have decreased supply and increased the costs of alternative sources to make up for shortages.

The imbalance characterizing water supply in Central America is another key aspect:

70% of freshwater available for human use (consumption, irrigation, etc.) is concentrated in the Atlantic zone, but the CDC and largest agglomerations of population are located in the Pacific region.¹¹

At the national level, Northern Triangle countries **have the least annual availability of water resources per capita in Central America**, yet Guatemala and El Salvador show the highest rates of water importation.

In terms of services, the three Northern Triangle countries have made progress in access to water within the home, although rural areas are lagging:



- Somewhat more or less than **20%** of this population does not have indoor plumbing.
- Only **25% to 31%** of Northern Triangle populations have water available whenever required.



Sanitation

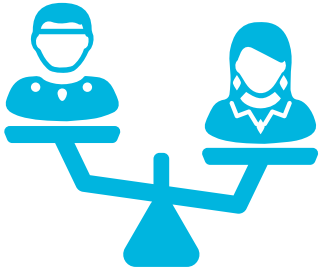
Percentages of the population regularly practicing open-air defecation:

- **El Salvador: 5%** of the population (rural area)
- **Guatemala: 10%** of the population
- **Honduras: 13%** of the population

To cope with the challenges of water and sanitation services, self-managed community organizations perform the important work of attending to **14.7 million people** in the three Northern Triangle countries.

However, 80% of these entities in Latin America have significant organizational, logistical, technical and financial weaknesses.

¹¹ Francisco Sancho, Luis Rivera y Ronald Arce, Proceso Regional de Las Américas Foro Mundial del Agua (2018) Informe subregional Centroamérica. Cela Bedoya, ed., (Washington: BID, 2018), 21, https://www.incae.edu/sites/default/files/proceso_regional_de_las_americanas_foro_mundial_del_agua_218_informe_subregional_centroamerica_es_es_1.pdf



Land tenure

Acute inequality in the habitational and productive use of land has been recorded, with thousands of smallholdings making up a very low percentage of national farmland.

Women are particularly affected, given the traditional, male-dominated pattern of tenure, and division of labor by gender means they receive **little or no remuneration** for their work.

Land granted to women is usually poor quality, and their power of decision and control is co-opted by masculine power, imposed in accordance with the patriarchal family structure.

La Red Centroamericana de Mujeres Rurales Indígenas y Campesinas (Central American Network of Indigenous and Country Rural Women) has documented low indices of land tenure by women in the Northern Triangle:¹²

- **Honduras: 12% of the land**
- **El Salvador: 13% of the land**
- **Guatemala: 15% of the land**

Indigenous communities are also greatly affected by land tenure inequalities because of the lack of legal recognition and effective enforcement of collective property rights, an ancestral practice. This aspect is fundamental, given that approximately **3.5 million indigenous people** live in the Central American Dry Corridor.

¹² Arantxa Guereña, Tierra para nosotras. Propuestas políticas de las mujeres rurales centroamericanas para el acceso a la tierra (Ciudad de Guatemala: RECMURIC, 2015), 9, <https://genderandsecurity.org/projects-resources/research/tierra-para-nosotras-propuestas-politicas-de-las-mujeres-rurales>

Habitat for Humanity International Latin America and the Caribbean, along with its national organizations in Guatemala, El Salvador and Honduras, commissioned the study “Characterization of the Dry Corridor in Central America’s Northern Triangle” to understand environmental and climate change impacts on the population’s living conditions as directly related to the right to adequate housing.

As an international organization driven by the vision that everyone deserves a decent place to live, we commissioned this study to present the problems afflicting the more than 22 million people who live in the Northern Triangle countries of Central America’s Dry Corridor. The inhabitants of this region face great economic, social and environmental vulnerability, and it is for them that we advocate by means of the information presented in this document.

The experience of Habitat for Humanity International indicates that unless regulatory measures are taken, urbanization, migration and climate change will continue rising unchecked, and needs among the most vulnerable will be greater in coming years. For this reason, we have proposed an articulated regional approach and strategic programmatic initiatives to mitigate threats and vulnerabilities in this territory as means for improving the living conditions of its population.

For more information about the study “Characterization of the Dry Corridor in Central America’s Northern Triangle,” visit [habitat.org](https://www.habitat.org).

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