EL NIÑO 2023-2024

LATIN AMERICA AND THE CARIBBEAN

ACTION AGAINST HUNGER

WFP World Food Programme

INTRODUCTION

This publication represents a collaborative endeavour between the **World Food Programme** (WFP) and **Action Against Hunger**. We aim to provide a comprehensive understanding of the humanitarian impacts of El Niño experienced in the Latin American and Caribbean (LAC) region, shedding light on the phenomenon's impacts in 2023 and 2024 and the urgent needs demanding international attention.

El Niño is a meteorological phenomenon characterised by periodic warming of sea surface temperatures in the central and eastern equatorial Pacific Ocean. El Niño represents the warm phase of the El Niño-Southern Oscillation (ENSO), contrasted by the cold phase known as La Niña. During an El Niño episode, conventional atmospheric and oceanic circulation patterns in the Pacific Ocean are disrupted, resulting in widespread alterations to precipitation patterns, cyclonic activity, and global temperature averages. El Niño usually occurs every two to seven years, and can affect the LAC region, increasing vulnerability to droughts, floods, hurricanes, storms, and wildfires. Furthermore, it can have significant impacts on global, regional, and local food production, as well as economic growth, leading to escalations in food prices, agricultural inputs, and energy costs.[1]

The 2015-2016 El Niño episode left a profound humanitarian mark on over 60 million individuals worldwide, impacting agricultural production, food security, livelihoods, health, water, sanitation, and education.[2]

El Niño can affect the Latin American and Caribbean region in the following ways:

- The Central American Dry Corridor spanning parts of Nicaragua, El Salvador, Guatemala, and Honduras, as well as northern South America, experience drier-than-usual conditions. Historically, the El Niño phenomenon has been associated with drier and warmer weather from June to October, followed by above-average rainfall from September to May, especially along coastal regions.

- Typically, El Niño conditions suppress hurricane activity in the Atlantic basin and the Caribbean Sea.

- Warmer waters in the Pacific basin can increase the frequency and intensity of storms, heavy rains, and flooding along the western coasts of Colombia, Ecuador, and Peru.

The World Meteorological Organization (WMO) officially declared the start of the El Niño season in early July 2023. El Niño is expected to weaken by April 2024, with neutral ENSO conditions likely to prevail thereafter.[3] La Niña conditions are anticipated to return between July and September 2024.[4]

In 2023, El Niño conditions led to prolonged droughts and water shortages in the Central American Dry Corridor, Bolivia, and Colombia, alongside intense rainfall and flooding along the coasts of Ecuador, Peru, and inland Bolivia. These climatic variations led to agricultural impacts, with crops at risk of being lost due to droughts or destroyed by floods. Agricultural losses exacerbated food insecurity, created economic hardships, and heightened the vulnerability of communities reliant on agriculture for their livelihoods.

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[1] Economic Implications of El Niño on Asian Countries and the Global Rice Market, July 2023 | WFP Emergency Operations Division, Analysis & Early Warning
[2] El Niño: Overview of Impact, Projected Humanitarian Needs and Response as of 16 August 2016 | ReliefWeb
[3] El Niño expected to last at least until April 2024 | WMO
[4] ENSO Forecast March 2024 Quick Look | International Research Institute for Climate and Society

KEY FIGURES

The climate impacts of El Niño in the LAC region occur within a context of elevated food insecurity.

43.2 MILLION
people are **undernourished** in Latin America and the Caribbean.
(SOFI, July 2023)

28.5 MILLION
people are experiencing **acute food insecurity** in LAC countries where WFP operates. (GORP, February 2024)

3 times higher than pre-COVID 19 pandemic levels.

83.4 MILLION
people in LAC are experiencing **severe food insecurity**.
(SOFI, July 2023)

743.000
people in **severe food insecurity**, in El Salvador, Guatemala, and Honduras.
(WFP and IPC, February 2024)

1.3 MILLION
people were exposed to severe drought due to El Niño.
(Bolivia, Colombia, El Salvador, Guatemala, Honduras, Nicaragua, Peru and Venezuela, April - November 2023)

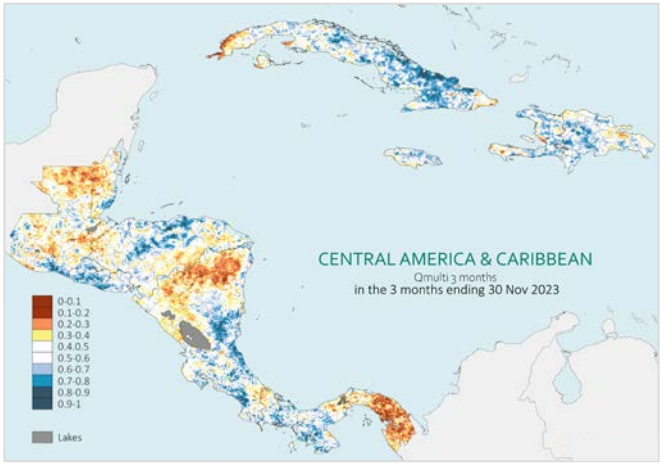
DROUGHT AND LACK OF RAINFALL IMPACT IN 2023

Although by no means the only impact of El Niño, one of the main effects is the increased likelihood of droughts and reduced precipitation. Some of the populations most affected by El Niño reside in rural areas, particularly small-holder farmers who may lack access to credit and have limited resources to invest in water collection or irrigation systems to cope with reduced or erratic precipitation. Among this population, women, Indigenous communities, and persons with disabilities can be most vulnerable to adverse climate impacts of El Niño.[5]

According to estimates from the WFP, based on a model (Qmulti) developed jointly with the Geographic Information System (GIS) unit of WFP Headquarters and the Research, Assessment, and Monitoring Unit (RAM) of the WFP Regional Office in Panama, **486,000 people living in rural areas of Central America were exposed to severe drought between April and November 2023,** spanning both the Primera and Postrera agricultural seasons, representing a precipitation deficit of at least 20% for both seasons (Figures 1 and 2).[6]

There was an irregular increase in rainfall at the end of 2023, meaning that the Postrera season in Central America was less impacted by drought, with estimates indicating that 347,000 people in rural areas were affected by severe drought.[7]

[5] Indigenous Peoples, Afro-descendants and climate change in Latin America - Ten scalable experiences of intercultural collaboration. Santiago. | FAO, 2021
[6] Qmulti: Three indicators have been identified as key climatic drivers to inform the impact of this phenomenon on crop conditions. These are (i) normalized difference vegetation index (NDVI), widely used to monitor vegetation growth and health; (ii) precipitation accumulation as measured by its long-term average value; and (iii) land surface temperature (LST), which can be used as a proxy indicator of significant soil moisture deficits and may be more sensitive to problematic conditions in deep vegetation areas.
[7] The main agricultural seasons in Central America are the Primera (main season), generally from May to mid-July, and the Postrera (second season), from September to November.



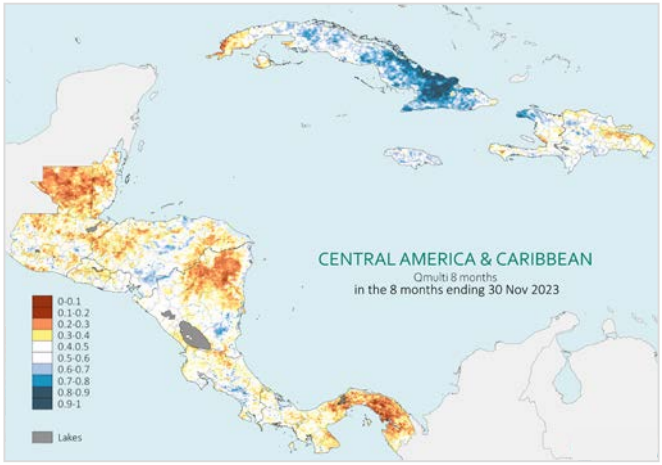
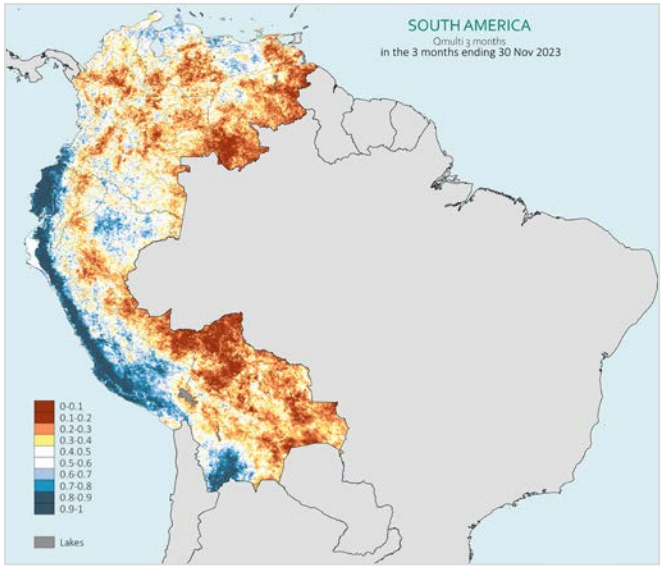


Figure 1 and 2: Figure 1 represents the Postrera season, from September to November 2023. Figure 2 represents the Primera and Postrera seasons, from April to November 2023. The rainfall deficit was more pronounced when assessing rainfall averages over the eight months spanning the Primera and Postrera. The population was less exposed to drought in the Postrera than in the Primera due to an increased, albeit irregular, amount of rainfall observed in the last months of the year.



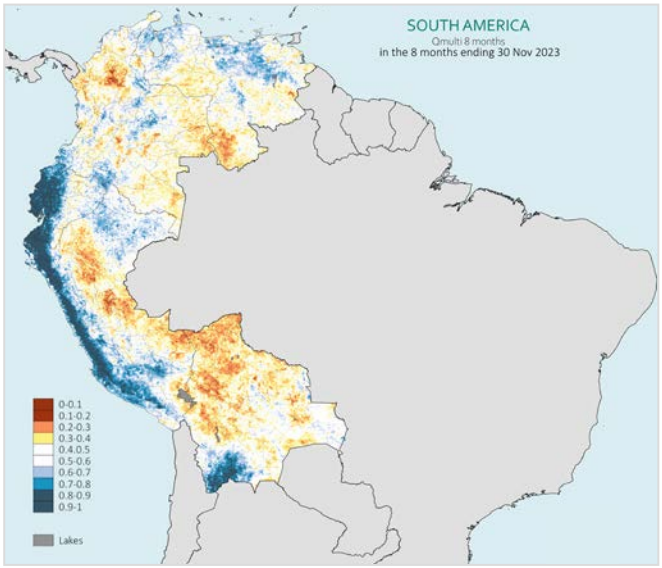


Figure 3 and 4: Figure 3 represents the Qmulti analysis from September to November 2023 and Figure 4 represents the Qmulti analysis from April to November 2023. It can be seen that during the last months of 2023, several parts of the region, especially in Bolivia, Peru, and Colombia, were exposed to severe drought.

The WFP Qmulti model indicates that between April and November 2023, a total of **803,000 people living in rural areas were exposed to severe drought in Bolivia, Colombia, Peru and Venezuela** (Figures 3 and 4). When considering moderate and severe drought, up to 2.7 million people in Colombia alone may have been exposed to drought impacts due to El Niño. This figure could increase to over 3 million people if the estimates account for indirect impacts of price inflation on urban populations suffering from food insecurity.[8]

Additionally, households below the poverty line with multiple indicators of social vulnerability, such as dependency ratio, earning at or below the minimum wage, reliance on informal and subsistence work, people with disabilities in the household, the elderly with chronic illnesses, and pregnant and lactating women, among others, may be more susceptible to impacts due to climate shocks and indirect price increases due to El Niño. Some of the most vulnerable populations to climate risks are Indigenous and Afro-descendant communities, considering they constitute 46% of the rural population in LAC.[9] Rapid climate variability increases risks for farmers and rural communities[10], who find many of their traditional practices at risk in a changing climate and need support to increase adaptation capacities.

[8] WFP Qmulti estimates and WFP Colombia country office estimates.
[9] Indigenous Peoples, Afro-descendants and climate change in Latin America - Ten scalable experiences of intercultural collaboration. Santiago. | FAO, 2021
[10] Diagnosis of droughts and climate change in rural communities in Central America. | Action Against Hunger, 2024.

I AM A WOMAN FIGHTER, I FEEL LIKE A FIGHTER, AND THAT'S HOW WE HAVE MOVED FORWARD IN MY FAMILY. WE WORK TOGETHER, WE HELP EACH OTHER IN THE COMMUNITY [...]

LUISA'S FIGHT AGAINST CLIMATE CHANGE IMPACTS

In the fields of the El Naranjo community, located in the department of Madriz, Nicaragua, a voice marked by determination rises. Luisa Oliveira, a farmer, maintains her strength amidst the challenges imposed by climate change in the Dry Corridor of Central America.

"We have had quite a few impacts on agriculture. Climate change is complicated; the rainy season is sometimes good, sometimes bad, it comes late, it ends early, so we have to work on other things, do alternative activities to survive," she says.

Adversity has not broken Luisa's resilient spirit. Instead she diversifies her activities, turning challenges into opportunities. "I am a farmer, but this year we had little to harvest, due to the unpredictable climate. But I am also involved in raising chickens, I have pigs for fattening, and a small grocery store," she proudly explains, noting that she allocates part of the scarce bean and corn harvest for sale in her store, while another part feeds her family.

"I support myself with the store, the pigs, and the chickens because that's how we can survive to have a slightly better standard of living."

Her story is not only one of personal struggle but also a testimony of solidarity and community work. "I am a woman fighter, I feel like a fighter, and that's how we have moved forward in my family. We work together, we help each other in the community," she emphasises with gratitude.

The Dry Corridor of Central America is a territory 1,600 kilometres long and 100 to 400 kilometres wide, which concentrates 90% of the population of Central America and the main capitals of this geographic region. It is plagued by cyclical droughts closely related to the El Niño phenomenon. It is a territory marked by aridity and scarcity, where every seed planted is an act of resistance. Luisa Oliveira is more than a farmer; she is a symbol of strength, an inspiration to all those who face the hardship of a changing climate and the difficulties of rural life.

Luisa Olivera
El Naranjo Community, Madriz, Nicaragua.

CENTRAL AMERICA

The region has witnessed detrimental impacts of reduced precipitation and above-average temperatures since 2022. During the Primera and Postrera planting seasons of 2023, the Central American region experienced seasonal precipitation deficits, irregular rainfall distribution, and warmer than usual temperatures. WFP estimates that 486,000 people in the four countries of the Dry Corridor were exposed to severe drought in 2023 (Figures 1 and 2). Following the onset of El Niño, by July 2023, total precipitation reached 40-year historic low levels in much of the Central American Dry Corridor.[11] Precipitation deficits can lead to agricultural losses, resulting in economic hardships for already vulnerable small-scale farmers and, in turn, can increase food insecurity. Due to the impacts of El Niño in the Dry Corridor, by March 2024, FEWS NET predicts that between 1.7 and 2.7 million people will need food assistance in El Salvador, Guatemala, Honduras, and Nicaragua.[12]

GUATEMALA

Guatemala's Dry Corridor spans 36% of the country's departments and has seen nearly 360.000 hectares affected by the lack of rainfall due to El Niño, according to the Ministry of Agriculture and Livestock (MAGA in its Spanish acronym). Many regions of Guatemala also experienced heavy rains, localised flooding, and unexpected cold fronts following the outset of El Niño conditions. In 2023, according to data from the regional platform **PREDISAN** developed by Action Against Hunger, Guatemala experienced severe drought, especially in Petén, Escuintla, Suchitepéquez, Retalhuleu, and partially in San Marcos, Quetzaltenango, Sololá, and Chimaltenango.[13] Crop losses in areas with Action Against Hunger projects ranged between 25% and 75% compared to non-El Niño years.

HONDURAS

El Niño caused below-average rainfall and localised flooding in several areas of Honduras. From June to August 2023, the number of people experiencing crisis or severe acute food insecurity, phase 3+ of the Integrated Food Security Phase Classification (IPC), in Honduras was estimated at 2.4 million, around 25% of the population, including 352,000 people in emergency situations (phase 4 of the IPC). While these figures represent a slight improvement compared to the same period the previous year, the impact of below-average rainfall due to El Niño increased the risk of deteriorating food security in the Dry Corridor of Honduras.[14] The departments of Ocotepeque, Copán, Lempira, Santa Bárbara, Intibucá, La Paz, and El Paraíso were particularly affected by drought. Although the production of staple grains was affected, supply was ensured through imports.[15]

EL SALVADOR

Although the outcomes of the Primera and Postrera seasons in El Salvador were close to average, the country experienced significant agricultural losses due to drought conditions and heavy rainfall. El Salvador recorded increased rainfall on the Pacific coast and intense precipitation due to the proximity of Tropical Storm Pilar, which affected over 8,000 people, according to WFP estimates. The rise in food prices, which has been increasing since 2021, heightened the vulnerability to food insecurity for many families, especially those dependent on agriculture, livestock, fishing, and informal trade.

NICARAGUA

Nicaragua's Dry Corridor, home to nearly 20% of the country's rural population, only received 30% of the total expected seasonal precipitation.[16] There are approximately 67,000 small farms in the Dry Corridor, almost half of which have less than 2 hectares and predominantly practice subsistence agriculture. Below-average and erratic total rainfall affected overall crop production, increasing food prices and food insecurity in households dependent on the minimum agricultural wage.

[11] Special Report Central America November 2023 | GEOGLAM Crop Monitor
[12] Famine Early Warning Systems Network (FEWS NET)
[13] PREDISAN is developed in coordination with the academy GIS4TECH-University of Granada, with the participation of international organizations such as FAO and financed by the European Union Humanitarian Aid.
[14] Honduras: Acute Food Insecurity Situation December 2022 - February 2023 and Projections for March - May 2023 and June - August 2023 | IPC - Integrated Food Security Phase Classification
[15] FAO, 2023.
[16] Special Report Central America November 2023 | GEOGLAM Crop Monitor

OUR RESPONSE

1. Strengthening Early Warning Systems (EWS), anticipatory action plans, and micro/macro insurance coverage.

- **WFP supported over 5,000 vulnerable farmers in Guatemala with drought-tolerant seeds, fertilisers, and cash transfers** through the activation of its anticipatory action plan.
- **WFP ensured that more than 5,300 households received microinsurance payments in Guatemala** due to drought and excessive rainfall.
- **Action Against Hunger** developed PREDISAN, an information system that collects data, makes analyses using machine learning techniques, and monitors indicators linked to food insecurity to support decision-making. PREDISAN can support the humanitarian response decisions of national institutions, international agencies, and NGOs.

2. Emergency response through cash transfers and delivery of in-kind food assistance.

- **WFP Guatemala supported 29,000 people with cash transfers** in response to emergencies caused by rains and droughts.
- **WFP Honduras** was able to test operational readiness and improve its response time before drought impacts by distributing **cash transfers to 2,500 vulnerable individuals** in Choluteca, as part of an **anticipatory action collaboration with FAO** and the Red Cross.
- **WFP El Salvador assisted 2,500 families,** approximately 10,000 people, with cash transfers to mitigate the impact of food insecurity.
- With the support of the European Commission's Directorate-General for Civil Protection and Humanitarian Aid Operations (ECHO), **Action Against Hunger assisted more than 27,000 people** (108,200 cash transfers in total) during the seasonal hunger period in Guatemala and Honduras.

3. Bolstering institutional capacities and support to national social protection systems.

- **WFP closely collaborated with the Government of Nicaragua** to provide a second meal to **120.000 boys and girls, who were already benefiting from the school meal programme**, covering seven departments of the Dry Corridor.
- In January 2024 in Nicaragua, **WFP supported the first regular snack distribution, reaching more than 175,000 students.**
- **Action Against Hunger** facilitated the inclusion in **social protection networks of almost 1,300 people in Guatemala and Honduras.** In Guatemala, support has been provided to 940 families through various programmes hosted by the Ministry of Social Development (MIDES in its Spanish acronym) and Rural Development Learning Centers (CADER in its Spanish acronym) under MAGA. In Honduras, Action Against Hunger facilitated the inclusion of more than 250 families in national social protection programmes.

4. Resilience programmes and capacity-strengthening offered to smallholder farmers and agricultural cooperative groups.

- **WFP Nicaragua supported nearly 6,400 small farmers, over half of whom were women,** through technical assistance, including training sessions on water resource management and crop diversification, and the distribution of agricultural inputs.

- **Action Against Hunger**, with the support of the Spanish Cooperation (AECID), provided technical assistance to **970 partners from 8 cooperatives** in Honduras, Guatemala, and Nicaragua. Promoting sustainable agricultural practices and increasing resilience to climate shocks that allows small-scale farmers to improve their production.

5. Multi-sectoral partnerships with international organisations and the promotion of national technical working groups to improve humanitarian coordination.

- **WFP, FAO, UNICEF, and PAHO/WHO** collaborated with OCHA to develop the **first regional multisectoral anticipatory action framework funded by the Central Emergency Response Fund** (CERF) to mitigate the impacts of drought in the Dry Corridor of El Salvador, Guatemala, Honduras, and Nicaragua. The framework is ready for possible activation in 2024.

- WFP promoted the commitment to anticipatory a**ction in Honduras by forming a national working group** with the participation of over 20 UN agencies, NGOs, and government entities.

- As part of the ALCANCES II project, carried out by **Action Against Hunger** and financially supported by the United States Agency for International Development (USAID/BHA), **100 rainwater harvesting reservoirs were built in Guatemala and Honduras, each with a storage capacity of 100 m³.** This initiative will serve to irrigate the cultivation of avocado trees and beans to support income generation for vulnerable families (more than 13,000 people) exposed to climate shocks.

SOUTH AMERICA

El Niño conditions can lead to increased drought, heatwaves, and forest fires in parts of Colombia, Venezuela, Bolivia, and Peru. It can also lead to increased storms, rainfall, and flooding along the Pacific coasts of Peru and Ecuador. WFP estimates that between April and November 2023, 803,000 people in Bolivia, Peru, Colombia, and Venezuela were exposed to severe drought. The Amazon region experienced unprecedented drought, with the Amazon River basin reaching its lowest levels in 120 years.[17] The effects of El Niño in South America could also be felt indirectly through price fluctuations, affecting urban populations in the region. According to the latest food security assessments by WFP, nearly 6.8 million people are facing severe food insecurity in Colombia, Ecuador, Peru, and Bolivia, representing 70% of the total population facing severe food insecurity in countries in which WFP has presence in the LAC region.

ECUADOR

In 2023, Ecuador experienced more impacts from excessive precipitation and floods than from drought or reduced rainfall. In June 2023, before the official declaration of the El Niño season, over 20,000 people had already been affected by heavy rains and floods in Esmeraldas, in the north of the country. Between January and March 2024, nearly 130,000 people and 29,000 homes were affected by heavy rains in the coastal region of the country.[18]

BOLIVIA

WFP estimates suggest that the rural population of Bolivia was the most exposed to severe drought compared to other South American countries. Forest fires severely affected the country, and in November 2023, a state of emergency was declared in 51 municipalities due to community disruption, material and economic losses, and environmental damage. Bolivia's Ministry of Civil Defense estimated that over 4,900 families were affected by the fires. Bolivia has also experienced heavy rains and droughts in the interior and northwest of the country. As of March 2024, floods and landslides caused by heavy rains have affected over 155,000 people.

COLOMBIA

Colombia faces multiple climate threats across its diverse landscapes. Between November 2023 and January 2024, at the peak of El Niño conditions, there were reports of 323 forest fires, six droughts, and two cold fronts, with 69 municipalities experiencing water scarcity and an estimated 45,000 people directly affected. Water shortages impacted crop and dairy production, as well as river transport, disrupting the national agricultural supply chain. Reduced water flow due to El Niño can also diminish the livelihoods of Colombia's fishing communities, who rely on fish as a source of income and primary food. According to a study by Action Against Hunger Colombia, 63.4% of nearly 2,000 surveyed households experienced income losses due to El Niño's climate impacts, especially in rural areas linked to the agricultural sector. 69% of households reported increased mosquito presence, with higher rates in rural areas showing a rising pattern of suspected cases of Zika, dengue, malaria, or chikungunya.[19]

As part of the El Niño preparedness process, OCHA estimated that 9.3 million people in the country were exposed to risks associated with increased temperature, precipitation variability, and food and water shortages.

PERU

El Niño has left its mark on Peru, with a combination of heavy rains on the coast and drier-than-usual temperatures in the Andean and Amazonian regions inland. The combination of increased temperatures and rains in certain regions of Peru has triggered a significant increase in dengue cases, surpassing the previous year's records by 50%, with over 13,000 cases reported to date in 2024.[20] Since the start of the rainy season, over 714,000 people in the country have been affected by extreme weather conditions.

Piura, Tumbes, Lambayeque, and Indigenous territories like Condorcanqui have been heavily impacted by El Niño, resulting in increased food insecurity, livelihood losses, shortages of drinking water, and rising rates of child malnutrition. Smallholder farming families in rural areas have been heavily impacted, with over 38,000 hectares of crops affected by adverse El Niño conditions .

[17] Climate change, not El Niño, main driver of extreme drought in highly vulnerable Amazon River Basin, January 2024, World Weather Attribution, http://hdl.handle.net/10044/1/108761
[18] Gestion de Riesgos Ecuador, 2024, Infografia_Nacional_Lluvias_29012024_06032024-SitRep34-12h00.pdf (gestionderiesgos.gob.ec)
[19] Fenómeno El Niño En Colombia (2023-2024): percepción de Impactos comunitarios y Estrategias de Afrontamiento. Acción contra el Hambre Colombia 2024
[20] Latin America & The Caribbean Weekly Situation Update as of 16 February 2024 | OCHA

OUR RESPONSE

1. Generation of evidence and needs assessments on the climatic impacts of El Niño and food security.

- **Action Against Hunger in Colombia,** has conducted a study titled "El Niño Phenomenon in Colombia (2023-2024): Perception of Impacts and Coping Strategies from Communities", to understand the impacts of El Niño and the response measures adopted by affected communities.

- **WFP Colombia conducted risk and vulnerability assessments** in areas affected by the El Niño phenomenon. Based on initial estimates indicating that El Niño could push an additional 2.1 million people into food insecurity, a national response plan was developed jointly with the Government.

2. Technical assistance offered to governments on preparedness and emergency response measures.

- **WFP supported the efforts of the Government of Bolivia** to assist populations affected by drought in 36 municipalities.

- **WFP Peru** provided technical support to the government's response to El Niño impacts through humanitarian transportation and logistics. WFP facilitated the **prepositioning of 166 metric tons of humanitarian items** for the National Institute of Civil Defense (INDECI in its Spanish acronym), as part of emergency response measures.

3. Resilience and capacity building activities offered to local communities and agricultural cooperatives.

- **Action Against Hunger Peru** trained and supported **20 community organisations** to promote health, hygiene, and nutrition. It worked in collaboration with local communities to strengthen their integrated response to these organisations.

- Through the Amazon Alliance Project, funded by the European Civil Protection and Humanitarian Aid Operations (ECHO), **Action Against Hunger Colombia** worked to reduce environmental risks associated with water source contamination in the departments of Putamayo and Amazonas.

- **WFP Colombia worked with local communities to diversify their livelihoods** and better prepare for climate variability and the effects of El Niño. This included promoting sustainable agricultural practices, encouraging alternative income-generating activities such as agrotourism, and strengthening skills and capacities for efficient water management.

[21] Informe de situación No 4. Situación epidemiológica del dengue en las Américas - Semana epidemiológica 03, 2024.

4. Development of institutionalised anticipatory action plans and the improvement of Early Warning Systems (EWS).

- **WFP Ecuador is developing an anticipatory action plan for floods** that could trigger cash transfer distributions and early warning messages to more than 8,000 people based on forecasts of excess rainfall.

- WFP is developing an **anticipatory action plan in the Amazon and San Martín regions of Peru** to act before floods if activation levels are reached.

5. Humanitarian emergency response through cash transfers and deliveries of in-kind food assistance.

- Through the Intersectoral Emergency Response Mechanism (MIRE+[22]), **Action Against Hunger Colombia**, reached over 15,000 individuals with life-saving food assistance.

- **Action Against Hunger Peru assisted over 73,400 people,** providing multipurpose cash transfers, hygiene items, and food to families in positions of heightened vulnerability. It also responded to flood impacts, providing clean water and hygiene items to curb the spread of dengue reaching over 40,000 people directly and indirectly.

- In **Colombia**, the Government has requested WFP to mobilise resources to **provide food assistance to over 136,000 people** as part of the national response plan to El Niño expected to launch in March 2024.

- In **Ecuador, WFP assisted over 200,000 people with hot meals across** six emergency shelters following the impacts of devastating floods in Esmeraldas. Since January 2024, WFP has been supporting the Government's flood response by scaling up the reactive emergency social protection system.

[22] Mecanismo Intersectorial de Respuesta en Emergencias, que funciona gracias a la financiación de ECHO, BHA, AECID y COSUDE.

EL NIÑO AND THE CARIBBEAN

Although they may share mutual connections and influences, climate change and El Niño are distinct phenomena. Climate change refers to long-term alterations in global or regional weather patterns due to human behaviour, mainly greenhouse gas emissions. On the other hand, El Niño is a natural climate cycle and occurs independently of human influence.

Though it is difficult to reach a consensus on the relationship between climate change and El Niño due to the variable nature of ENSO, studies indicate that rising global temperatures due to human-induced climate change may lead to increasingly intense El Niño events.[23, 24] Climate change could also alter the frequency and habitual patterns of El Niño phases, leading to more unpredictable and damaging impacts. **According to the Intergovernmental Panel on Climate Change (IPCC), the frequency and strength of both El Niño and La Niña ENSO phases is expected to increase in the next century and intensify existing climate hazards, such as droughts and storms.**[25]

Global El Niño conditions may influence temperatures, precipitation patterns, and storm formations affecting the Caribbean region. In 2023, parts of the Caribbean, such as Haiti and the Dominican Republic, experienced both droughts and floods, resulting in reduced crop yields and financial capacity to cope with shocks.[26]

Increased vertical wind shear and atmospheric stability over the tropical Atlantic during El Niño years tend to inhibit hurricane development and intensification, leading to fewer and weaker hurricanes in the Atlantic basin. The 2023 hurricane season produced seven hurricanes, three of which were considered major storms (category 3-5) and experienced the highest number of storms on record during an El Niño year due to exceptionally warm sea surface temperatures across the Atlantic. Although it is still too early to predict accurately, expectations of La Niña conditions could result in an active and above-average 2024 hurricane season, as decreased wind shear and warmer Atlantic waters, typical of La Niña conditions, facilitate storm formation and strengthening.

In the first six months of 2024, El Niño conditions are predicted to cause record-high global temperatures, including in the Caribbean Sea, which could influence the development and intensity of storms in the Atlantic basin.[27]

Predictions of La Niña conditions and global temperature increases due to climate change underscore the importance of prioritising preparedness, anticipation, and response to the 2024 hurricane season.

WFP PRIORITY ACTIONS IN THE CARIBBEAN [28]

Preparedness measures through anticipatory action and agroclimatic insurance coverage.

- WFP activated its anticipatory action plan in Haiti, supporting more than 500,000 people with early warning messages and nearly 19,000 people with cash through the national social protection system.
- In the Dominican Republic, WFP significantly expanded its AA plan to include drought as a hazard and expand coverage for floods from 6,000 people to 19,500 if trigger thresholds are met.
- In 2023, WFP facilitated coverage for 700 farmers against crop failure in Cuba and 10,500 farmers with parametric insurance against excess rainfall and drought in Haiti.[29]

Technical support for government preparedness and response through social protection systems and strengthening of logistics capacities.

- WFP partnered with the Caribbean Disaster Emergency Management Agency (CDEMA) to deploy the CDEMA Logistics System (CLS) among participating Caribbean states. The CLS is a digital platform that allows national, regional and international humanitarian actors to register and track logistics, food and other assets that can be used in an emergency.
- In June 2023, WFP facilitated a South-South Cooperation meeting between the Governments of Cuba and the Dominican Republic to strengthen adaptable social protection schemes to share lessons learned and tools on beneficiary and supply chain management.

[23] Cai, W., Borlace, S., Lengaigne, M. et al. Increasing frequency of extreme El Niño events due to greenhouse warming. Nature Clim Change 4, 111–116 (2014).
[24] Cai, W., McPhaden, M.J., Grimm, A.M. et al. Climate impacts of the El Niño–Southern Oscillation on South America. Nat Rev Earth Environ 1, 215–231 (2020).
[25] Collins M., M. Sutherland, L. Bouwer, S.-M. Cheong, T. Frölicher, H. Jacot Des Combes, M. Koll Roxy, I. Losada, K. McInnes, B. Ratter, E. Rivera-Arriaga, R.D. Susanto, D. Swingedouw, and L. Tibig, 2019: Extremes, Abrupt Changes and Managing Risk. In: IPCC Special Report on the Ocean and Cryosphere in a Changing Climate [H.-O. Pörtner, D.C. Roberts, V. Masson-Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, A. Alegría, M. Nicolai, A. Okem, J. Petzold, B. Rama, N.M. Weyer (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 589–655.
[26] Special Report Central America November 2023 GEOGLAM Crop Monitor.
[27] Jiang, N., Zhu, C., Hu, ZZ. et al. Enhanced risk of record-breaking regional temperatures during the 2023–24 El Niño. Sci Rep 14, 2521 (2024).
[28] WFP tiene presencia en República Dominicana, Haití, Cuba, y 22 territorios y países en el Caribe desde Barbados.
[29] Strengthening Resilience and Linking Private Sector Support to Farmers in Haiti, March 2024 | World Food Programme

CALL TO ACTION

The lingering effects of El Niño in 2023 will escalate food security needs and increase the risk of climate shocks in 2024. These conditions heighten the imperative for swift collective action to address escalating humanitarian challenges, emphasising the need for collaborative efforts to respond to current and future regional crises. Here is what is on the horizon in 2024.

CENTRAL AMERICA

- In 2024, WFP **Guatemala** expects to increase its coverage of parametric microinsurance and further develop its anticipatory action plans, covering at least 7,000 people under AA plans for droughts and floods. WFP will continue to prioritise cash transfers to ensure food security as an emergency response and hopes to reach 120,000 people in the first half of 2024 if adequate financial resources are secured.
- WFP **Honduras** will expand its emergency response to vulnerable, hard-to-access communities, including those in the drought-affected Dry Corridor and the Caribbean coast affected by floods and storms. It aims to reach 225,000 people through its various programs in 2024.
- In 2024, WFP **El Salvador** aims to scale-up its cash assistance programme for food security, aiming to reach over 43,000 families facing food insecurity.
- In **Nicaragua**, WFP aims to support a shock-responsive social protection (SRSP) system to respond to emergencies in the Dry Corridor, as well as the strengthening of the emergency preparedness and response protocols under SINAPRED related to anticipatory actions and Early Warning Systems (EWS).
- Action Against Hunger will focus investments in **Guatemala, Honduras, and Nicaragua** on anticipatory action, parametric climate insurance, and technical support for small-scale producers, aiming to strengthen their resilience to climate shocks. Action Against Hunger prioritises enhancing the adaptive capacity and response of vulnerable communities to extreme weather phenomena, promoting effective coordination among stakeholders for a sustainable, long-term response.
- Action Against Hunger aims to reach 60,000 people during the first six months of the year in **Guatemala, Honduras, and Nicaragua**. Greater investment is needed in social protection, agricultural extension, and resilient technology to achieve the goal of improving the resilience and food security of vulnerable communities.

SOUTH AMERICA

- In **Colombia** Action Against Hunger will work to address deficiencies in water quality and access, as well as to promote public health through specific programs and policies related to clean water access. WFP and Action Against Hunger will continue to promote community level disaster-risk reduction practices and facilitate grassroots-level coordination to improve the response and resilience to unexpected climate shocks.
- According to OCHA and the food security and nutrition cluster, there are 7.3 million people in need in **Colombia,** of which almost 900,000 are targeted under the humanitarian response plan WFP has been requested by the Government to support the national response to El Niño to mitigate the food security impacts of climate shocks on 34,000 families.
- In **Peru**, Action Against Hunger has identified several areas requiring action, including the delivery of supplies to ensure hygiene, disease prevention, and the provision of emergency water storage systems to households and emergency shelters. Emergency assistance activities for vulnerable families are proposed in coordination with local governments, as well as the promotion of public health campaigns and the adaptation of food baskets to local preferences. WFP prioritises its support to the Government response through shock-responsive social protection systems and emergency preparedness measures.
- WFP will continue to support the development of AA and EWS in **Colombia, Ecuador, and Peru** that allow actions be taken before flood and drought impacts. It hopes to have finalised anticipatory action plans in each country ready to activate by the end of the year.
- Action Against Hunger aims to reach 160,000 people across the South American countries where it works during the first half of 2024.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