



Food and Agriculture  
Organization of the  
United Nations

**El Niño**

# Anticipatory Action and Response Plan

October 2023–March 2024

Mitigating the expected impacts of El Niño-induced climate extremes  
on agriculture and food security



---

The increased likelihood of extreme weather events linked to El Niño calls for Anticipatory Action to mitigate the impact on vulnerable people in the countries most at risk.

---

## Context

**The El Niño Southern Oscillation (ENSO) is a natural climate phenomenon** (alternating between El Niño and La Niña episodes), in which surface waters of the central and eastern Pacific become unusually warm and cause changes in weather patterns around the world, driving extreme weather events including drought, flooding and storms. It occurs every two to seven years and typically lasts 9-12 months. Since El Niño can often be predicted months in advance, has a slow onset and a regular pattern, it is possible to design anticipatory actions and prepare emergency responses well ahead of time. The current El Niño immediately follows a three-year La Niña phase, which brought the opposite extremes to affected countries, including severe drought to the Horn of Africa.

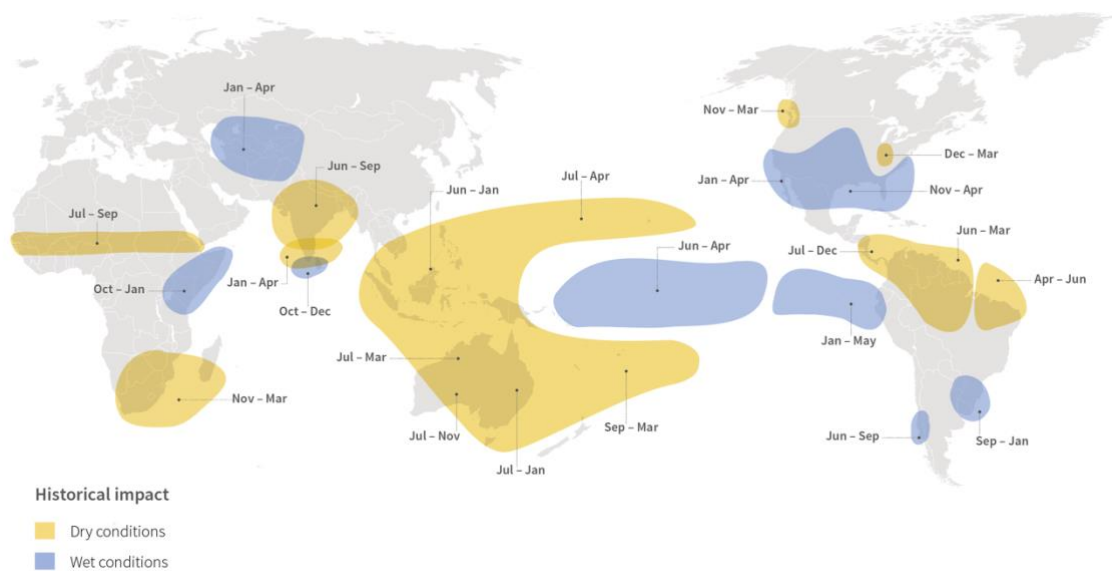
**The latest predictions point to a greater than 80 percent chance of El Niño continuing through March-May 2024**, following declaration of the onset of El Niño conditions in early July 2023 by the World Meteorological Organization (WMO). The strength is expected to be comparable to the top six strongest events in recorded history (National Oceanic Atmospheric Administration's Weather Prediction Center and Climate Hazards Center, Santa Barbara). The magnitude of El Niño's effects on precipitation varies notably from one event to another depending on the specific anomalies in sea surface temperature and atmospheric behaviour, including its interaction with other climate phenomena such as the Indian Ocean Dipole. Of particular concern this year is the anticipated positive state of the Indian Ocean Dipole in late 2023, which tends to amplify El Niño's effects on weather in several regions. The latest [International Research Institute \(IRI\) multimodel precipitation forecasts](#) initialized in September 2023 for October 2023–March 2024 indicate the latest probabilities of below- and above-normal rains.

**El Niño-induced climate hazards pose high risks to food security.** The world enters this El Niño cycle with a record 258 million people experiencing acute hunger and only 20 percent of the funds needed to deliver food security assistance to the most vulnerable. Many countries facing humanitarian crises also risk being affected by El Niño impacts in the coming weeks and months. The impact of ENSO events on agriculture and food security can be severe and cause significant human suffering and economic loss. The 2015-2016 El Niño episode severely affected over 60 million people worldwide, causing 23 countries to appeal for international humanitarian assistance totalling USD 5 billion.

**By disrupting rainfall and temperature patterns, El Niño may strongly impact agriculture, rural livelihoods and food security.** Farmers, pastoralists, fishers and other small-scale producers bear the most direct and immediate impacts of climate shocks. Effective Anticipatory Action must therefore concentrate on preventing damage and loss to crops, livestock, productive lands, waters and infrastructure to protect food at its source. This not only safeguards local food supply but also mitigates wider effects on communities, local economies and humanitarian aid requirements. Food and Agriculture Organization of the United Nations (FAO) studies show that every USD 1 invested in Anticipatory Action can create a return for farming families of more than USD 7 in avoided losses and added benefits.

**FAO has developed Anticipatory Action protocols and is part of inter-agency Anticipatory Action frameworks** in many of the countries historically affected by El Niño, and where food security is a major concern. In close coordination with governments and other key partners, FAO is already implementing Anticipatory Action to mitigate the impact of forecast El Niño-induced climate extremes on agriculture and food security. However, the available financial resources are extremely limited compared to the expected effects of this phenomenon.

Figure 1. Historical El Niño trends



**Source:** Columbia Climate School International Research Institute for Climate and Society. 2023. El Niño and rainfall. In: *ENSO Resources*. [Cited 3 August 2023]. <https://iri.columbia.edu/our-expertise/climate/enso/>

The final boundary between the Sudan and South Sudan has not yet been determined. Final status of the Abyei area is not yet determined. The dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

## Objectives

FAO's El Niño Anticipatory Action and Response Plan aims to protect the food security and livelihoods of rural communities at high risk of El Niño impacts through the first quarter of 2024. Its activities cover two critical time windows: (i) acting ahead of El Niño shocks to prevent their impacts and (ii) delivering first responses where devastation from El Niño could not be avoided.

**The Plan's objectives are three-fold:**

1. **Mitigate El Niño disaster impacts through anticipatory actions**, such as helping fishers protect their boats ahead of storms, reinforcing river embankments ahead of floods, distributing drought-tolerant seeds to rainfed farmers and protecting livestock health.
2. **Capitalize on the positive spillover effects of El Niño and offset losses**, for example by supplying seeds to flood-affected farmers so they can plant and regain a harvest as flood waters recede.
3. **Deliver early response where El Niño causes devastation**, including through prepositioning the most time-sensitive supplies such as veterinary medicines, seeds and water bladders, while providing cash to severely affected families to meet their most immediate needs.

## Geographic coverage

**FAO's revised Plan currently prioritizes actions in 34 countries (Figure 2) across Eastern and Southern Africa, Asia and the Pacific and Latin America and the Caribbean.** The countries were identified by assessing historical impacts of El Niño and considering key factors such as latest seasonal climate forecasts, agricultural seasonality and current vulnerabilities.

**The below steps were taken to identify priority countries** at high-risk of El Niño impact during the coming months for Anticipatory Action:

- The IRI El Niño and rainfall map<sup>a</sup> (page 2) was used to list the countries historically impacted by El Niño and outline when El Niño historically shifts rainfall patterns in those countries (months) and how (dry/wet).
- Seasonal climate forecasts for the October 2023–March 2024 period were applied as a filter, with countries facing normal conditions removed from the list. The main sources used include global forecast models (e.g. IRI Seasonal Climate Forecast, European Centre for Medium-Range Weather Forecasts [ECMWF], WMO), as well as regional and national seasonal climate forecasts when available.

---

<sup>a</sup> In some cases, this has been triangulated with the Famine Early Warning System Network teleconnection.

- Agricultural seasonality was analysed to determine which agricultural seasons will potentially be affected during the outlook period.
- Additional factors considered include current humanitarian needs, as well as the risk analyses conducted by the Inter-Agency Standing Committee (IASC) Global ENSO Analysis Cell.<sup>b</sup>

Based on these criteria, Figure 2 outlines the countries prioritized under the revised Plan.

Figure 2. Current geographic coverage of the Plan (34 countries)



Source: United Nations Geospatial. 2022. Map of the World. [Cited 25 October 2023].  
<https://www.un.org/geospatial/content/map-world-1>

The final boundary between the Sudan and South Sudan has not yet been determined. Final status of the Abyei area is not yet determined. The dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

**Countries where the impact of El Niño is expected to occur after the period covered by available climate forecasts were not included in the Plan**, while countries that were previously flagged and for which El Niño effects were not experienced during the historical impact period, were removed (i.e. Bangladesh). Importantly, the list of countries prioritized does not include all countries at risk of being affected by El Niño-induced hazards. The list focuses specifically on countries where FAO plans to support actions to reduce expected humanitarian impacts. As new forecasts will become available, the country coverage of the Plan will be updated accordingly.

<sup>b</sup> The IASC Global ENSO Analysis Cell is an inter-agency group that is convened based on the Standard Operating Procedures for early action to El Niño/La Niña episodes. Since early April 2023, the Cell continues to meet on regular basis to identify the priority countries at highest-risk of humanitarian impacts of El Niño episode, with a focus on different sectors. The outcome analysis is followed by a summary note and disseminated to relevant humanitarian and resident coordinators of prioritised countries calling for Anticipatory Action planning and close monitoring of climate information at regional and country level. Participants in the Cell include ACAPS, FAO, International Federation of Red Cross and Red Crescent Societies, International Organization for Migration, IRI, Médecins Sans Frontières, Office for the Coordination of Humanitarian Affairs, SCI, Office of the United Nations High Commissioner for Refugees, United Nations Children’s Fund, World Food Programme, World Health Organization, WMO.

## Funding needs and modalities

El Niño impacts will unfold in different places, at different times, with varying intensity and magnitude. In view of the revised list of countries, including ten additional countries/hotspots as per newly released forecasts, **FAO's Anticipatory Action and Response Plan urgently requires nearly USD 160 million** to deliver immediate support to over 4.8 million of the most at risk and affected people through March 2024.

**Effective anticipation and response to El Niño requires flexible funding at scale** to allow for agile planning and rapid action when and where it is needed most. Contributions made to FAO's Special Fund for Emergency and Rehabilitation Activities will support fast decision-making, disbursement of funds and actions on the ground. Some of the most urgent activities in this Plan require funding as soon as possible, including to get the right seed varieties to farmers to secure a crop despite the odds of drought or flood conditions. FAO urgently calls for funding to support rural communities at scale and in time.

**Funds are needed most immediately to carry out Anticipatory Actions in time.** The triggers for Anticipatory Action have already been reached in most regions. FAO was able to immediately initiate Anticipatory Actions in 19 prioritized countries<sup>◦</sup> thanks to flexible funding from resource partners such as Belgium, Canada, the Directorate-General for Humanitarian Aid and Civil Protection, Germany, Norway, Sweden and the United Kingdom of Great Britain and Northern Ireland. In other countries, FAO has advanced preparations in place, that involve local partners and suppliers of goods, to ensure activities can start quickly once new triggers are reached.

**The Plan is risk-based and forward looking.** Therefore, there is an unavoidable level of uncertainty with regards to the actual occurrence of the forecast hazards. For this reason, the activities are planned following a no-regret approach. An adaptive approach will be used to ensure that resources are re-allocated where they are most needed to prevent and mitigate the effects of El Niño across the world. The Plan will be updated on a regular basis to reflect latest developments and new forecasts.

---

<sup>◦</sup> The Plurinational State of Bolivia, Colombia, Ecuador, Ethiopia, El Salvador, Fiji, Guatemala, Honduras, Kenya, Madagascar, Malawi, Mozambique, Nicaragua, Papua New Guinea, Somalia, Timor-Leste, Uganda, the Bolivarian Republic of Venezuela and Zimbabwe.

# Priority actions by region

## Eastern Africa

### Context

Since October 2020, the region has been hit by the most extensive and persistent drought episode since at least 1981. The drought damaged livelihoods and incurred debilitating, repeated cumulative shocks to herds, crops, water availability and household incomes in southern and southeastern Ethiopia, northern and eastern Kenya and Somalia. Although the rainy season has generally been above average, recovery from a drought of this magnitude will take years.

### Seasonal forecast

For Eastern Africa, El Niño is associated with above-average rains during the October–December rainy season. While El Niño often receives the most global attention, it is not the only climate driver that is important for potential rainfall outcomes in the region during this period. A positive Indian Ocean Dipole will likely strengthen the impacts of El Niño. Current seasonal forecasts for October–December reflect a likely situation that is in line with expected impacts from an El Niño and positive Indian Ocean Dipole. All major meteorological agencies<sup>d</sup> show an increased probability of above-average rains. A recent special report from the Food Security and Nutrition Working Group in the region by the Intergovernmental Authority on Development (IGAD) Climate Prediction and Applications Centre and the Climate Hazards Centre and FAO, indicates an elevated probability of above-average rains in southern Ethiopia, northern Kenya and Somalia; a similar shift is also expected in Rwanda and Uganda.

### Expected impact on agriculture and food security

El Niño-induced above-average rainfall could support the recovery from the ongoing drought conditions experienced in the region, improving crop and livestock production. However, such rains can also result in heavy rainfall episodes, flooding and landslides especially in eastern Ethiopia, Kenya, Somalia and southern Uganda. Therefore, households that have already experienced back-to-back shocks over the past several years face an increased risk of additional crop and livestock losses and diseases, infrastructure damages, population displacements and water-borne diseases. This includes cholera, which is already a major source for concern across the region. After a drought and especially when there is no time to transition between droughts and floods, livestock are often nutritionally challenged and stressed, leading to reduced immune system functioning, increasing the likelihood of diseases. Furthermore, wet conditions enhance the probability of vector-borne diseases. In addition, forecast flooding will likely drive additional population displacements in a region with a caseload of already 18 million internally displaced people.

---

<sup>d</sup> The agencies include the National Oceanic and Atmospheric Administration, WMO, IRI, ECMWF and the United Kingdom Met Office.



It should be noted, however, that the impacts of El Niño are not homogeneous across the region. In the western parts of the East Africa region, such as South Sudan, the Sudan, and western Ethiopia and Kenya. El Niño is associated with below-average rains during this rainy season.

### Planned activities

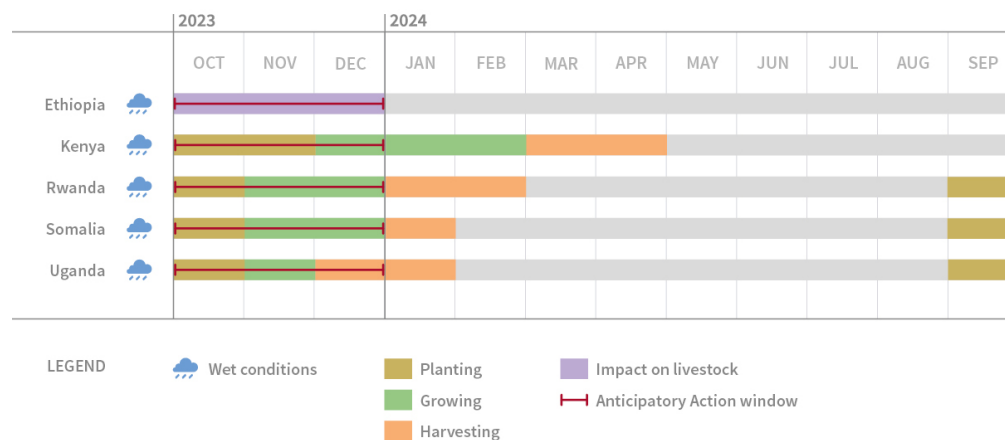
 **USD 21.3 million**       **427 950 people**

FAO has launched Anticipatory Actions for floods in Ethiopia, Kenya, Somalia and Uganda. In these countries, FAO has successfully mobilized USD 11.7 million, with ongoing activities targeting or reaching more than 283 250 people, through the provision of immediate flood defense infrastructure, early warning information and livelihoods assistance for at-risk communities. However, additional support is needed to implement Anticipatory Actions and rapid response interventions at a larger scale. Immediate support should include unconditional cash and animal health interventions to limit the spread of flood-induced diseases. In areas where floods will not be averted and crops will be partially or destroyed, the residual soil moisture from the receding flooding will still allow farmers to enjoy a harvest if supported for immediate replanting and with tools and equipment to protect the harvest.

Prioritized actions:

- Provide unconditional cash to the most vulnerable households to support their activities to prepare for and cope with the impact of floods.
- Deliver animal health interventions to reduce the risk of flood-induced disease outbreaks and parasites.
- Distribute seeds for rapid replanting using the receding floodwater.
- Distribute hermetic bags and tools to help farmers safely store their harvest.

Figure 3. Eastern Africa priority countries seasonal calendar



Source: FAO. 2023. *Internal document*. Rome.

## Southern Africa

### Context

Following the end of the 2023 harvest season, vulnerable farming households throughout the region have begun off-farm income-generating activities. These households are currently engaging in preparations ahead of the 2023/24 agricultural season. The persistent strong El Niño weather pattern is likely to cause a delayed and irregular onset of the rainy season, adversely affecting crop production and income-generating opportunities.

### Seasonal forecast

The majority of the Southern Africa Development Community region is anticipated to experience regular to below-average precipitation from October to December 2023, according to the Twenty-seventh Southern Africa Regional Climate Outlook Forum. Exceptions are expected in the northwestern part of Angola, northeastern Zambia, northern Malawi, northern Mozambique and eastern Madagascar, where normal to above-average rainfall is expected. For the remainder of the rainy season through February 2024, the southwestern regions of Namibia, the southern section of Zimbabwe, Eswatini, southern Mozambique and the southernmost part of Madagascar are expected to experience below-average rainfall.

### Expected impact on agriculture and food security

In Southern Africa, El Niño-induced drought in 2023 could impact the performance of the main agricultural season between October 2023 and March 2024, especially in countries and areas that registered below-average cereal production in 2022/23 as a result of climate extremes (cyclones). Croplands in countries likely to face dry conditions are highly susceptible to water stress, with potential adverse implications on crop yields in the 2023/24 season. Drought could also lead to an increased incidence of plant and animal pests and disease outbreaks.

In 2015-2016, El Niño-induced drought affected an estimated 32 million people in Southern Africa. In 2023-2024, high impacts on food security are expected, especially in areas already facing Integrated Food Security Phase Classification (IPC) Phase 3 and above outcomes. The resulting food insecurity has the potential to adversely affect the nutritional well-being of at-risk groups, including children, pregnant and breastfeeding women and older people. In addition, if there were substantial disruptions to production in major producing countries, reduced outputs could lead to price spillover effects, along with the possibility of increased domestic inflationary pressures.

## Planned activities



USD 55.16 million



2 629 500 people

FAO will work with partners to ensure that early warnings and related agricultural advisories are disseminated to at-risk people, and that Anticipatory Actions are implemented to protect the livelihoods of the most vulnerable people ahead of the forecast drought. If the expected hazards materialize, FAO will conduct post-disaster impact assessments and kick-start activities to address the remaining needs of affected people. This will contribute to protect development gains, strengthen the humanitarian–development–peace nexus and build the resilience of communities in the face of future shocks.

FAO is already launching a set of Anticipatory Actions in Madagascar, Malawi, Mozambique and Zimbabwe. In these countries, FAO has successfully mobilized USD 15.8 million, reaching or targeting more than 276 000 people. Ongoing activities will contribute to minimize crop losses, ensure continuation of food production through short-cycle off-season crops, and improve the availability and management of scarce water resources for crops and livestock production. However, urgent additional support is required to ensure the following actions can be implemented at the required scale and coverage in 2023.

### Priority actions:

- Disseminate early warnings and agricultural advisories widely to ensure farmers are aware of appropriate risk management options to minimize crop, livestock and other livelihood losses.
- Provide farming inputs, including drought-tolerant short cycle crop seeds (cereals and legumes) for the main 2023/24 season, vegetable seeds, small irrigation kits and training in water management.
- Protect animal health and productivity, through livestock disease monitoring, vaccination and treatment, community watering points, distribution of feed and drought-tolerant fodder seed, as well as poultry and small ruminants where appropriate.
- Protect community fisheries resources and aquaculture assets and provide fishing kits.
- Deliver cash programmes, including unconditional cash, cash+ (cash transfers plus seeds to support off-season production) and cash for work associated with small-scale irrigation, water harvesting and soil conservation.

Figure 4. Southern Africa priority countries seasonal calendar



Source : FAO. 2023. *Internal document*. Rome.

## Asia and the Pacific

### Context

El Niño has contrasting impacts across Asia and the Pacific. It can bring both too much rain as well as too little to the region. Historically, and depending on the strength of the El Niño, subregions face the following conditions:

- Southeast Asia: drier conditions and heightened typhoon activity.
- South and central Asia: a mix of both drier and wet conditions depending on the time of year and geography.
- Pacific Islands: located in the epicentre of El Niño, the region experiences all key climatic forms of the event. Fiji, Samoa, Palau, Papua New Guinea, the Marshall Islands and the Federated States of Micronesia can experience drier conditions.

Conversely, the Solomon Islands, Vanuatu, Tuvalu and Kiribati can experience much wetter conditions. Overall, the subregion can also experience heightened cyclone activity.

To address challenges in Asia and the Pacific, adopting a multihazard approach is of utmost importance. Past occurrences of El Niño events have revealed the simultaneous risks of multiple hazards, such as droughts occurring alongside floods or cyclones being followed by droughts. El Niño intensifies the frequency of natural hazards while also bringing them closer in time and space. For instance, during the 2015/16 El Niño event, both Vanuatu and the Philippines encountered a cyclone-vis-drought scenario.

In both countries, the cyclones were particularly severe, classified as Category 5, resulting in widespread devastation to the agriculture sector. This led to significant losses in crops and livestock and caused damage to boats and fishing equipment. The unfortunate timing of these cyclones was aggravated by the subsequent onset of dry conditions, further hindering the communities' ability to recover and restore their agricultural activities. The compounding effects left livelihoods already compromised and severely challenged their capacity to bounce back from the disasters.

### Seasonal forecast

Long-range precipitation forecasts (3-6 months) showcase typical signs of El Niño across the region. Based on seasonal forecasts, Timor-Leste is currently raising significant concerns due to the strong indications of drier than usual conditions, particularly over the upcoming rice and maize season. Papua New Guinea is also at high risk with drier than normal conditions already being felt, and the need to drive up Anticipatory Action until the end of the year is critical. The conditions in both countries are expected to persist until early next year. Additionally, over the next six months, other Southeast Asian countries, including Indonesia, Myanmar, the Philippines, Viet Nam, Lao People's Democratic Republic are likely to experience similar patterns, although this shift may occur at a later stage. In Pakistan, the southern region typically experiences drier conditions from June to September, while the northern region usually receives more rainfall from January to April. Afghanistan is expected to observe wetter conditions in the same timeframe. In these countries, while abundant rainfall is generally beneficial for crop growth, the coexistence of elevated temperatures in the forecast might lead to potential pest infestations, thereby causing localized crop damage. The Pacific Island subregion is further showing both above average and below average precipitation forecasts; El Niño is also associated with higher cyclone activity in the Central Pacific basin. Tropical cyclones have a substantial impact throughout the Southwest Pacific, with the season commencing in November and extending until April. Vanuatu and Fiji face an elevated risk, exemplified by the recent occurrence of Cyclone Lola, which made landfall in Vanuatu with a Category 5 intensity on 25 October. Such an occurrence is unprecedented, with no similar event recorded since the commencement of record-keeping in 1969.

### Expected impact on agriculture and food security

Diverse impacts on agriculture and food security are expected across the region, considering the variety of contexts and agroecological conditions. In the Pacific, namely Timor-Leste and Papua New Guinea, drought can lead to significant water and food shortages due to crop losses. During extreme events, increased rates of internal displacement and malnutrition have been recorded. Furthermore, potential drought in Southeast Asian countries is expected to cause losses in main cereal crops (e.g. rice, maize), pulses as well as perennial cash crops (e.g. coffee, pepper). The aquaculture sector could be significantly impacted by saltwater intrusion, especially in the Mekong Delta region which is also a water lifeline for many at-risk families. Increased livestock

mortality, especially among small stock (e.g. chickens, ducks) is expected due to higher temperatures, pasture depletion and lack of drinking water, potentially leading also to animal disease outbreaks. In Fiji, cyclones could result in damages to fishing boats and fishing equipment, sugarcane and root vegetable production, as well as livestock death.

El Niño events, historically, have been associated with a rise in food insecurity due to decreased crop production and lower yields in Asia and the Pacific. This, in turn, has led to an increase in food prices both within the region and on a global scale. Notably, the Mekong River delta has experienced significant impacts, with countries like Viet Nam relying heavily on this area, which contributes to more than half of their national rice production and 70 percent of aquaculture. Additionally, the drier conditions brought about by these episodes can lead to water stress, reducing water availability for agricultural activities, drinking water supplies and hydropower generation. Moreover, areas experiencing such dryness face a higher risk of forest fires, posing further challenges to the region's environmental stability. Furthermore, the agriculture sector is susceptible to the onset of pests and diseases during these periods. For instance, in the Philippines, mice outbreaks can occur with drier conditions that can devastate maize crops already under stress from lack of precipitation. In Afghanistan, above-average rainfall will potentially support the 2024 winter crops after three years of drought. However, heavy precipitation can also lead to floods and landslides, destroying crops, triggering higher livestock mortality, and impacting human health and nutrition. The northern regions of Pakistan are at risk of experiencing significant floods caused by the accumulation of heavy snowfall and intense rainfall. These conditions may result in livestock fatalities and the failure of the 2024 wheat crop, which is the primary staple in the country. This situation could exacerbate the existing issue of elevated prices.

### Planned activities



USD 41.6 million



676 450 people

As of this update, FAO in the Asia and the Pacific region has successfully mobilized USD 1.36 million, with ongoing activities reaching or targeting more than 13 750 people. FAO urgently requires additional funding to expand and strengthen Anticipatory Action efforts in the prioritized countries. Additionally, it seeks support for rapid response interventions to support families affected by disasters. Prolonged periods of drought can significantly impact plant growth, leading to reduced yields, while powerful cyclones can swiftly devastate livelihoods and assets. The funds will be used to implement a range of activities tailored to each country's context, comprising both Anticipatory Action and rapid response measures.

Priority actions for drought:

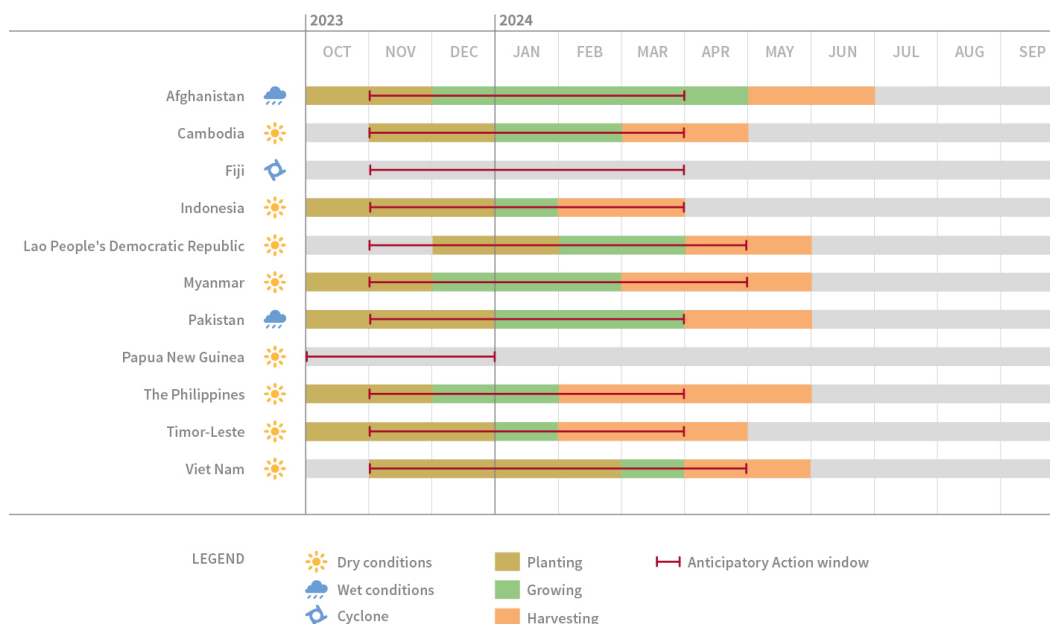
- Disseminate early warnings on the most suitable planting time and conduct awareness campaigns and trainings on good water management practices and post-harvest techniques for food preservation.

- Provide water harvesting and storage equipment.
- Deliver cash assistance, such as cash for work to increase water storage capacity (e.g. water points, ponds, wells) and multipurpose cash to support access to basic needs and services, including irrigation.
- Provide farming inputs, including drought-tolerant seeds, short cycle crop seeds, microgardening and micro-irrigation kits for rapid food production during affected seasons, as well as drip irrigation for perennial crops, followed by inputs to restore crop production in the immediate aftermath of drought.
- Distribute livestock feed before drought impacts animal health, set up fodder banks, and restock small livestock and fingerlings to rapidly restore production in the immediate aftermath of the drought.
- Provide fisheries assistance packages.

Priority actions for floods/cyclones:

- Disseminate early warning messages with agricultural advisories.
- Distribute seed/feed storage silos.
- Provide animal feed at evacuation points.
- Protect fisheries assets, including boat strengthening kits and watertight drums to keep fishing gear safe.
- Support boat repair and fishing gear replacement after cyclones.
- Distribute root crops and support the chain of farm to market.
- Deliver cash assistance, including multi-purpose cash to ensure access to food and other basic needs and cash-for-work to help rebuild markets.
- Carry out animal re-stocking.

Figure 5. Asia and the Pacific priority countries seasonal calendar



Note: No specific cropping season is indicated for Papua New Guinea and Fiji, as the planting of root crops (e.g. taro, cassava, kumara) is continuous and rotational.

Source: FAO. 2023. *Internal document*. Rome.

## Latin America and the Caribbean

### Context

In recent years, smallholder farmers in Latin America and the Caribbean have faced a succession of shocks with cascading effects on their food security and agricultural livelihoods. Added to the socioeconomic impacts of the COVID-19 pandemic, were those of the war in Ukraine and of extreme weather events. Today, many communities are still struggling to recover from the 2020 hurricane season – the strongest on record for the region.

These drivers are combined with the fragility of the food systems on which the most vulnerable populations in rural areas depend. According to the Global Report on Food Crises (mid-year review), 13.6 million people in the region experienced Crisis or Emergency levels of acute food insecurity (IPC Phase 3 and above). Thus, any new shock or stressor has a more devastating impact on food security.



## Seasonal forecast

Earlier forecasts (August 2023) had indicated below-normal precipitation predicted over northern South America (Colombia, the Bolivarian Republic of Venezuela) and Central America (El Salvador, Guatemala, Honduras, Nicaragua), consistent with El Niño impacts. Forecasts also indicated that below-normal rainfall is expected in the Plurinational State of Bolivia and eastern Peru. On the other hand, above average rains were forecast towards the end of the year in coastal areas of Ecuador and Peru. From March to October 2023, warmer than normal temperatures have been observed, especially during the months of August and September. Likewise, below-average rainfall was recorded in some areas of Central America, the Bolivarian Republic of Venezuela, Colombia and the Plurinational State of Bolivia (Centro Internacional para la Investigación del Fenómeno de El Niño, October 2023). In some Central American countries, losses in basic crops are already being recorded and in the case of the Plurinational State of Bolivia, a state of disaster and state of emergency due to hydrological and meteorological drought has been declared in three departments and 44 municipalities of the country (Office for the Coordination of Humanitarian Affairs, October 2023).

## Expected impact on agriculture and food security

In the Plurinational State of Bolivia, below-normal precipitation forecasts have strengthened and potential impact on the summer planting season and livestock production has increased. This could cause delays in planting and losses of key crops such as maize, potatoes, quinoa, as well as impacts on livestock due to lack of pastures, feed and water, leading to higher incidence of diseases and higher mortality rates. According to the Government of Colombia, about 3.8 million ha of crops are under high threat of El Niño -induced drought, and many animals risk being affected and displaced. In Ecuador, the Ministry of Agriculture and Livestock identified 49 cantons as being at high or very high risk of potential floods occurring at the end of the year; potential crop, fisheries and livestock losses could amount to USD 136 million. In the Dry Corridor of Central America (El Salvador, Guatemala, Honduras, Nicaragua), below-average rains during the period from July to September directly affected the planting of the *postrera* season, postponing the sowing and reducing planted areas, which will certainly lead to lower crop yields of basic grains; the livestock sector will likely be affected with possible increased incidence of animal diseases and mortality rates. In Peru, on the one hand, El Niño is expected to cause rainfall deficits in some regions of the country, especially in the highlands of Puno, Moquegua and Tacna, affecting staple crop and livestock production. On the other, from the last quarter of 2023 until March 2024, above-normal rainfall is likely in the northern coast, the northern highlands and the northwestern region of the country, triggering floods and landslides. These new shocks will hit when vulnerable rural populations will have not yet had the chance to recover from previous floodings (first quarter of 2023) and keep the pressure on agricultural livelihoods and food prices. In the Bolivarian Republic of Venezuela, drought is expected to cause partial or total loss of crops in the arid zones of La Guajira, Zulia and Falcon states, particularly affecting small farmers; further, livestock (cattle, sheep, goats) are expected to be

impacted by increased temperatures, depletion of pastures and water resources. El Niño-induced changes in precipitation patterns are also expected to affect fisheries and aquaculture production across the prioritized countries.

The impacts of El Niño-induced hazards could cause further deterioration in acute food insecurity across the affected countries. According to FAO's Data in Emergencies, most agricultural producers in the Dry Corridor are smallholders who already face food insecurity and challenges in accessing agricultural inputs and commercializing their produce. Indigenous communities in the region would be particularly affected especially due to impacts on agricultural livelihoods.

### Planned activities



**USD 41.8 million**



**1 081 118 people**

FAO has already launched Anticipatory Actions to mitigate the expected impact of drought in the Plurinational State of Bolivia, Colombia, Ecuador, El Salvador, Guatemala, Nicaragua, Honduras and the Bolivarian Republic of Venezuela. In these countries, FAO has successfully mobilized USD 6.28 million, with ongoing activities reaching or targeting more than 121 437 people. Additional resources are urgently needed to expand the scale and coverage of the interventions, and to ensure support can be provided to vulnerable households across all prioritized countries. The sequencing and combination of activities would depend on each country context and agricultural calendars.

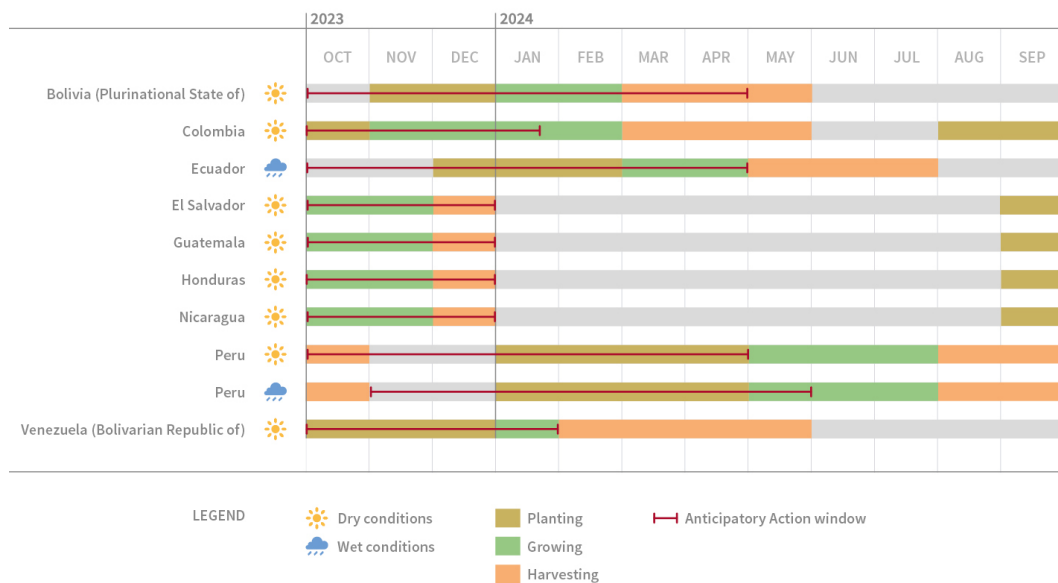
Priority actions for drought:

- Implement El Niño risk communication strategies for the agriculture sector.
- Deliver drought-tolerant and short-cycle seeds ahead of the planting seasons, provide backyard vegetable gardening kits, and support community seed banks.
- Conduct trainings on water resource management practices, and rehabilitate water harvesting, storage and irrigation systems.
- Protect livestock assets, through animal health campaigns; sanitary and zoonotic disease control campaigns; provision of animal feed, fodder seeds and support to fodder storage and conservation.
- Distribute water in areas where water collected through rainwater harvesting systems was insufficient.
- Support the rehabilitation of irrigation and water harvesting and storage systems.
- Provide fishing inputs and trainings on fishing as a livelihood diversification strategy.
- Provide training and support to establish community savings and loan schemes.
- Restock animals when needed and conditions allow.

Priority actions for floods:

- Clear drainage canals and support conservation work to avoid soil erosion.
- Distribute waterproof silos to safeguard crop seeds, tools, fishing gear.
- Support livestock evacuation from areas exposed to flood risk and supply fodder to evacuation centres.
- Carry out animal health campaigns to prevent flood-induced animal diseases.
- Undertake activities to prevent plant pests likely to emerge with abundant rains.
- Repair flood-affected assets, such as livestock shelters, fishing boats and related storage facilities.

Figure 6. Latin America and the Caribbean priority countries seasonal calendar




Source: FAO. 2023. *Internal document*. Rome.

## Coordination

**The activities foreseen in the Plan cannot be implemented in isolation.** FAO will continue to coordinate closely with affected communities and their national and local governments, including disaster risk management authorities and ministries of agriculture, as well as national meteorological services and civil protection. Country led efforts are reinforced by strong collaboration with regional organizations such as IGAD, Southern African Development Community, the Association of Southeast Asian Nations, the Pacific Islands Forum and the Coordination Centre for the Prevention of Natural Disasters in Central America.

**Coordination on Anticipatory Action is pursued through global platforms,** such as the Anticipatory Action Task Force, the Anticipation Hub and Risk-Informed Early Action Partnership, as well as through regional and national technical working groups for Anticipatory Action. Where the cluster system is active, coordination with humanitarian actors will be ensured both within the Food Security Cluster and across clusters. Joint implementation with partners will be favoured wherever possible, including through Central Emergency Response Fund inter-agency Anticipatory Action frameworks. Close coordination and collaboration with the World Food Programme will be ensured wherever both agencies are activating Anticipatory Action protocols.





FAO's Anticipatory Action uses risk analysis and forecasts to trigger interventions before a crisis escalates into a humanitarian emergency.

#### REQUIRED CITATION

FAO. 2023. *El Niño: Anticipatory Action and Response Plan, October 2023–March 2024. Mitigating the expected impacts of El Niño-induced climate extremes on agriculture and food security*. Rome. <https://doi.org/10.4060/cc8496en>

The boundaries and names shown and the designations used on the map(s) in this information product do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries. Dashed lines on the map represent approximate border lines for which there may not yet be full agreement.

Office of Emergencies and Resilience  
OER-Director@fao.org | Anticipatory-Action@fao.org  
[fao.org/emergencies](http://fao.org/emergencies)

**Food and Agriculture Organization of the United Nations**  
Rome, Italy



Some rights reserved. This work is available under a CC BY-NC-SA 3.0 IGO licence