

El Niño and La Niña: Preparedness and Response

SITUATION REPORT – July 2016

IN NUMBERS



people affected by El Niñorelated droughts, floods and extreme hot and cold weather.



(maize and bean) in the Dry Corridor of Central America.



80% of total needs

(USD 4 billion) required to meet the humanitarian demands is for the food security and agriculture sector.



developing towards the end of 2016.



people are projected to be food insecure in Southern Africa.

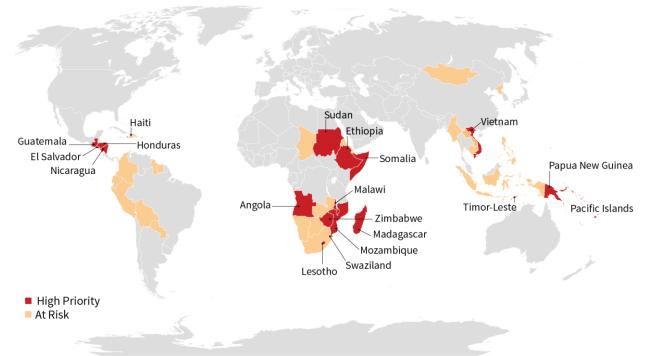


funding required for 23 countries most affected by El Niño

(of which USD 8.7 million has been mobilized from FAO resources and USD 43.4 million from funding partners)

RESPONDING TO EL NIÑO

PRIORITY AND AT-RISK COUNTRIES



OVERVIEW

The current 2015-2016 El Niño cycle has been one of the strongest on record and has had significant impacts on agricultural production and food security across the globe.

At present, the agriculture, food security and nutritional status of more than 60 million people are affected by El Niño-related droughts, floods and extreme hot and cold weather.

FAO is continuously monitoring the status of El Niño. While it has declined in strength and a return to a neutral state is indicated, its impacts on the agriculture sector are still continuing. Climate models are now predicting an increasing likelihood of La Niña developing in 2016, which is an opposite phenomenon. If this develops, the impacts could not only be the opposite, for example,

increased rainfall and flooding instead of drought, but it could also be in the same areas already affected by El Niño.

Harvests in several parts of the world have already failed and are forecast to fail in others, which will result in a dramatic increase in acute household food insecurity.

The regions most affected include the Horn of Africa, southern Africa, the Dry Corridor of Central America, Caribbean Islands, southeast Asia and Pacific Islands. Many countries within these regions have already declared a national state of emergency. In many of the affected countries, FAO is using early warning information to design and implement early action and response plans.

IMPACT ON AGRICULTURE AND FOOD SECURITY

SOUTHERN AFRICA

Regional overview



40 million people

are projected to be food insecure

While the El Niño phenomenon is now declining, its impact continues to be felt across Southern Africa, where preliminary figures indicate 39.7 million people are projected to be food insecure by the peak of the 2016/17 lean season. Its impact on food security and agricultural production in the region has been particularly severe and the effects of the drought and resulting food insecurity will likely peak during the first quarter of 2017. Severely reduced seasonal rains and higher-than-normal temperatures linked to El Niño caused an anticipated 12 percent drop in aggregate cereal production compared to the already reduced 2015 output. Drought emergencies were declared in Lesotho, Malawi, Swaziland and **Zimbabwe**. In addition, seven of South Africa's nine provinces, which account for almost 90 percent of the country's maize production, have been declared drought disaster areas. In Angola, Madagascar, and Mozambique, food insecurity is expected to worsen and aggravate the already fragile nutrition situation in these countries.

FAO's response

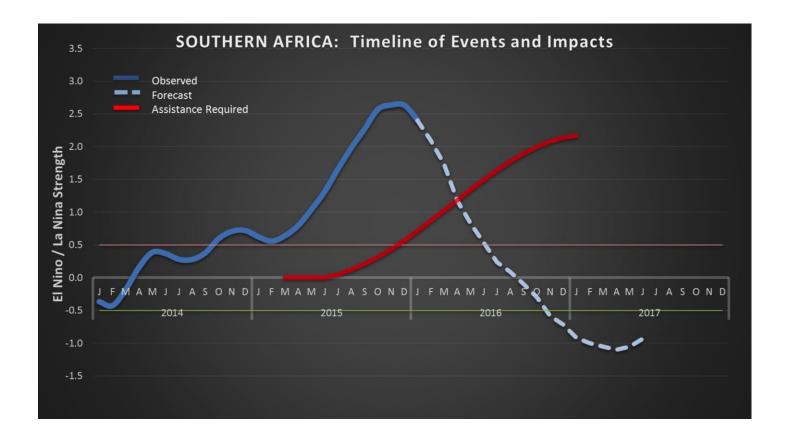
The El Nino-induced drought comes after drought in the 2014/15 season. Last year, farmers were able to cope a bit better because of the previous season's bumper harvest but this year their reserves have been exhausted. Given that drought events are frequently cyclical in the region, efforts will focus on building resilience, as well as the season. upcoming planting FAO is supporting 8 000 households in **Zimbabwe** to access livestock survival feed and drought-tolerant seeds of sorghum and cowpea in Mangwe, Matobo, Beitbridge, Gwanda and Chivi. In Malawi, support has included vaccinating small livestock, providing early maturing varieties of drought-resistant cereals and irrigation support to around 42 000 households in the six districts more prone to erratic rainfall and dry spells. In Namibia, FAO is supporting the Government in the rehabilitation of boreholes and training farmers on conservation agriculture, while in Lesotho Mozambique, FAO has been strengthening national capacity for response and providing coordination support.

Priority actions and funding requirement



USD 147 million

FAO has launched a region-wide response plan in close cooperation with national governments and aligned with emerging needs highlighted in the SADC regional appeal.



GREATER HORN OF AFRICA

Regional Overview



20 million people in the region

are facing critical and emergency food insecurity levels

Humanitarian needs in Ethiopia have tripled since the beginning of 2015. The drought has caused successive crop failures and widespread livestock deaths, and some 10.2 million people remain in need of humanitarian food assistance. Over one-third of Ethiopia's districts are officially classified as facing a food security and nutrition crisis. The belg (spring) rains were at first delayed and erratic, but by April had become abnormally heavy, causing flooding and landslides in six regional states. Farmland was submerged, livestock killed and key infrastructure damaged, hindering the delivery of humanitarian aid. The Government-led belg assessment is currently underway, which will determine humanitarian funding needs for the second half of 2016. In Somalia, nearly 4.7 million people, 38 percent of the population, are food insecure (IPC phases 2, 3 and 4) and will need humanitarian assistance through June 2016. Drought emergencies have been declared in Puntland and Somaliland. South Somalia experienced flooding in May affecting about 100 000 people, with 72 000 displaced from riverine areas. In Sudan, 4.6 million people are acutely food insecure (excluding West and East Darfur) as a result of El Niño. Below-average agricultural production in 2015, rising staple food prices, very poor pasture conditions and continued conflict in Greater Darfur, South Kordofan and Blue Nile States are leading to much higher food insecurity in 2016.

Funding requirement 5 USD 90 million



FAO's response

As co-chair of the Disaster Risk Management Agriculture Task Force in Ethiopia, FAO is working with the Government to conduct seasonal assessments and develop preparedness and response plans as well as guidelines for emergency agriculture support. Delivery of emergency seed support is ongoing, benefiting 145 000 households, and survival and supplementary livestock feed is being provided to 9 600 households, with an additional 1 600 households being supported to produce fodder. In addition, 18 water points are being rehabilitated, benefiting livestock owned by over 12 000 households, and some 1.4 million animals have been treated and/or vaccinated. The destocking of livestock has also provided much-needed income and improved the nutritional intake of 7 568 households. In Somalia, a mass vaccination campaign is underway in Puntland and Somaliland with six million doses of CCPP vaccines delivered. In Somaliland, FAO reached 6 000 households with cash transfers, 18 water catchments were rehabilitated and some 23 000 tractor hours were provided to drought-affected farmland enabling preparation 2016 cropping season. The community-based warning systems put in place by FAO and other partners helped to reduce the flood damage in the south. In Sudan. FAO has provided technical leadership and coordination support to develop the joint UN-Government of Sudan El Niño Mitigation and Preparedness Plan; and an assessment is being conducted of El Niño impacts across the country in order to update the number and location of those worst affected to ensure targeted responses are funded and implemented quickly.

CENTRAL AMERICA AND THE CARIBBEAN **Regional Overview**



3.5 million people

food insecure in the Dry Corridor of Central America

One of the areas most affected is the **Dry Corridor** in Central America consisting of El Salvador, Guatemala, Honduras and Nicaragua which is currently experiencing the worst drought in decades. More than 3.5 million people are food insecure and in need of humanitarian assistance after suffering major crop losses due to prolonged drought conditions. The 2016 maize harvest is expected to be well-below average and losses range from 50-100 percent in several areas. The joint FAO/WFP food security assessment in Haiti indicated that of the 3.6 million food insecure, over 1.5 million are severely food insecure. The main harvest for 2015 fell below average with losses of up to 70 percent in some areas. Above-normal rainfall across the region, coupled with a more active Atlantic hurricane season (June-November) typical of a La Niña episode — could have serious consequences for the agriculture sector.

FAO's response

FAO is supporting farmers with seeds and tools in the most drought-affected areas of Haiti, along with strengthening the community adaptation capacity and improving the resilience of the agro-ecosystems through farmer field schools and training. In the Dry Corridor, funds have been committed to promote actions aimed at reducing vulnerability and to increase livelihood resilience in the agriculture, forestry, livestock and fisheries sectors. In Guatemala, an emergency response programme is currently targeting 7 000 families. In El Salvador, support is focusing on local capacity development and rehabilitating and diversifying the agricultural production of more than 17 000 people affected by drought.

Funding requirement 5 USD 24.9 million

ASIA AND THE PACIFIC

Regional overview



1.9 million people

at risk of drought in northern and western Pacific

Viet Nam is currently experiencing the most severe drought in more than 60 years, affecting the livelihoods of 1.7 million people in 18 provinces. A State of Emergency has been declared and to date, 52 (out of 63) provinces — more than 83 percent of the country — have been affected by drought and saltwater intrusion. In addition, the central highlands are also facing a high risk of floods and landslides. In the northern and western Pacific region, drought is forecast threatening the livelihoods and well-being of 1.9 million people. Below normal rainfall is forecast over the next 3-6 months in the Federated States of Micronesia, Fiji, New Caledonia, Niue, Tonga, western Kiribati, southern Cook Islands and northern Vanuatu. A state of emergency remains in place for the Federated States of Micronesia, Marshall Islands and Palau as a result of El Niño-induced drought conditions, while in Timor-Leste, food insecurity is affecting 40.6 percent of the rural and agriculture-dependent population. After months of drought, large parts of Papua New Guinea have experienced torrential rain since early February, exacerbating the existing levels of vulnerability.

FAO's response

In Viet Nam, FAO in close collaboration with the Government, WFP and UN Women conducted an in-depth assessment in 54 villages of the damages and losses caused by the drought to the food security and livelihoods of affected rural households. In Fiji, a FAO multidisciplinary team is supporting the most-affected areas through three emergency response projects, while in Papua New Guinea a preparedness and response strategy for the food security sector is being developed with WFP. In Timor-Leste, maize and cover crop seeds are being distributed to beneficiaries for El Niño-affected fields. FAO is also implementing El Niño drought monitoring in Micronesia and Melanesia.

Funding requirement 5 USD 25.89 million

PREPARING FOR LA NIÑA

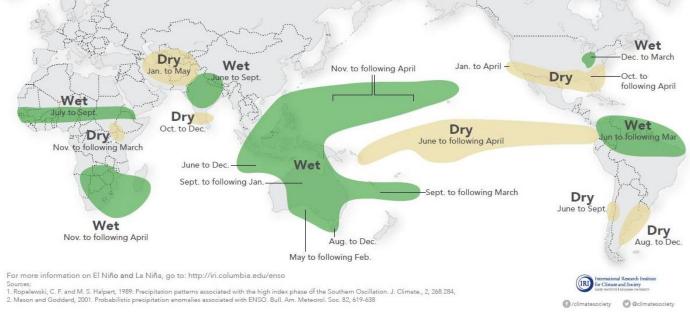
According to the Climate Prediction Center and the International Research Institute for Climate and Society, the current 2015/16 El Niño has now dissipated. Forecasts indicate that there is currently a 55-70 percent chance of a La Niña episode developing towards the end of 2016, with a slightly lower chance that the onset may occur as early as July. La Niña episodes normally persist for about one year, peaking between October and January, and mainly induces the opposing climatic effects of El Niño. Historically, La Niña has been associated with the following weather patterns:

- In Southern Africa, the occurrence of a La Niña event would increase the probability of above-normal precipitation from December to March, which if not excessive, could benefit the development of the 2016/17 cereal crops (October-March) in several countries, including the northern maize triangle in South Africa. Heavier rainfall also raises the possibility of flooding.
- By contrast, in **East Africa**, La Niña events during December–February are mostly associated with drier-than-normal conditions in the eastern areas of the subregion, which could negatively affect the "short-rains" season crops, normally harvested in February.
- In West Africa, the main cereal harvest is normally concluded by December, as a result cool weather conditions associated with La Niña from December to February are unlikely to adversely impact crop development. However, in 2011, severe floods associated with La Niña, caused considerable human casualties and livestock losses.
- In Asia, the La Niña phenomenon increases the probability of above-normal rainfall in much of south and southeast Asia during the end of 2016 and start of 2017, beneficial for planting of the main cereal season crops in the Southern Hemisphere countries, although excessive rains could also raise the potential for flooding. If La Niña occurs between July and September, the resulting effect tends to be cooler and wetter weather across large parts of southeast Asia, which corresponds with the tail-end of the planting period for the main season in Northern Hemisphere countries.
- In South America, La Niña is associated with wetter-than-normal conditions during December—February over the northern areas of the region. In northern Brazil, this tends to benefit planting and early development of food crops. By contrast, drier-than-normal conditions are generally observed along coastal Ecuador and northwestern Peru. In the event of an earlier onset, drier-than-normal weather tends to prevail in southern Brazil and central Argentina (main producing areas) between June and August, during the wheat planting period.
- In Central America and the Caribbean, La Niña is associated with above-normal rains during June–August, which may benefit the main "de primera" season cereal crops, currently being planted under overall dry weather conditions. However, the likelihood of excessive rain, coupled with a more active Atlantic hurricane season (June–November), typical of a La Niña event in the region, may have serious implications for the agricultural sector.

FAO will continue to closely monitor the development of La Niña and possible weather anomalies in the coming months to assess the potential impact on crop production.

Historical La Niña trends

The Institute for Climate and Society at Colombia University has developed a typology of La Niña climatic impacts based on analysis of La Niña events over the years. The following map indicates the typical impacts of La Niña on the continent.



KEY MESSAGES

- The impact of the current El Niño is overwhelming for any one agency or government and requires concerted and decisive assistance from the international community.
- **This is primarily a food and agriculture crisis.** Of the almost USD 4 billion required to meet the humanitarian demands of El Niño affected countries, almost 80 percent is for food security and agriculture.
- Without joint action, the economic and social gains made by the affected countries will be diminished and progress against the Sustainable Development Goals will falter.
- The importance of early action cannot be underestimated. Early action saves lives, conserves resources and results in more effective responses. Timeliness of early action interventions is crucial to address needs on the ground and there is a need for a strong livelihood recovery programme within the broader multi-sectoral response.
- In Southern Africa, we have a 3-month window of opportunity before the 2016/17 planning rains begin. If we miss this, millions of rural families will be forced into dependence on expensive humanitarian assistance well into 2018.
- With the likely onset of La Niña, we must act immediately, so that we can reduce negative impacts on communities already affected by El Niño while capitalizing on potential positive effects.