



Food and Agriculture Organization
of the United Nations

2015–2016 El Niño

Early action and response for
agriculture, food security and nutrition

Report

WORKING DRAFT (August 2016)

Update #10



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What is El Niño?

El Niño is the warming of sea surface temperatures in the tropical Pacific, which occurs roughly every two to seven years, lasting from six to 24 months. While reduced rainfall and drought is a key outcome of El Niño, the phenomenon can also cause heavy rains and flooding. Impacts of El Niño on agriculture and food security depend on a complex interplay of meteorological factors and range from minor to severe. The current 2015–16 El Niño is notable in terms of its strength and also its negative impact on crop production, livestock and agricultural livelihoods around the globe.

Background and purpose

The impact of the 2015–16 El Niño weather phenomenon has been one of the most intense and widespread in the past one hundred years. The agriculture, food security and nutritional status of more than 60 million people around the globe is affected by El Niño-related droughts, floods and extreme hot and cold weather. While the El Niño itself has passed its peak and is now declining, its impact is still growing. Harvests in several parts of the world have already failed and are forecast to fail in other areas.

This report provides a global analysis of the El Niño-related disasters and their impact on agriculture, food security and nutrition. It aims to give a consolidated outlook of the situation and the early actions being taken by governments, partners and the Food and Agriculture Organization of the United Nations (FAO). Analysis in the report is divided between FAO high priority countries (pp 5-25) and other countries at risk (pp 26-39). Countries were selected based on a combination of analysis of the El Niño event and FAO priorities for strengthening the resilience of livelihoods to threats and crises.

In view of the rapid evolution of the El Niño phenomenon, this report is updated regularly. It is part of a more general effort by FAO to increase the resilience of rural populations threatened by crises, including extreme climatic events such as El Niño. Given the high degree of exposure and vulnerability of populations to such events, the need for a focus on resilience building is clear. A recent ten-year analysis led by FAO's Climate, Energy and Tenure Division showed that 25 percent of all damage caused during natural disasters is in the agriculture sector. For drought, agriculture is the single most affected sector, absorbing around 84 percent of all the economic impact.¹

¹ <http://www.fao.org/3/a-i5128e.pdf>

Country Priority Criteria

For each country, the following pieces of evidence have been collated to inform decision-making:

- ♦ **Country rank within the Index for Risk Management – INFORM.**
 - INFORM is a global, open source risk-assessment index for humanitarian crises and disasters in support of prevention, preparedness and response. It is a collaboration of the Inter-Agency Standing Committee (IASC) and the European Commission. (www.inform-index.org).
- ♦ **The impact of the El Niño event** within the country. Agricultural and food security impacts of El Niño-related droughts, floods and other climatic events is recorded. (Global, regional and national forecasts and food security analysis centres, FAO GIEWS country updates).
- ♦ **Major disasters that have occurred in previous El Niño years**, specifically 1997–1998, 2002–2003 and 2009–2010, and the **highest population and economic impacts** recorded. These figures are only for a single disaster (unless otherwise indicated). For example, if multiple floods occurred during an El Niño year, only the impacts of the most severe event are indicated. (www.emdat.be/database).
- ♦ **Planned and ongoing response actions** carried out by FAO and partners. This information is based on available data (FAO, government statements, UN/NGO reports) and will evolve as the situation progresses.

Regional highlights

Africa

- Ethiopia – an estimated 9.7 million people are still in need of food and non-food assistance in 2016. The number of Ethiopia's *woredas* classified as facing a food security and nutrition crisis has decreased to just over 25 percent, indicating a slow improvement in the overall food security and nutrition situation.
- Somalia – drought has been declared in Puntland and Somaliland, where some communities have not experienced normal rains for up to four seasons, spanning two years. Nearly 4.7 million people are food insecure. Of this figure, 1.7 million people are in Puntland and Somaliland.
- Southern Africa – latest estimates by SADC indicate almost 40 million people are projected to be food insecure by the peak of the 2016/17 lean season. Regional cereal balance sheet analysis (excluding DRC, Madagascar, Mauritius, Seychelles and Tanzania) shows overall cereal deficit of about 9.3 million tonnes. Lesotho, Malawi, Swaziland and Zimbabwe have declared drought emergencies. The forecast continues to indicate drier than normal conditions.
- Sudan – 4.6 million people are acutely food insecure, primarily due to the effects of El Niño, and is likely to increase due to below-average agricultural production in 2015, rising staple food prices, very poor pasture conditions and continued conflict.

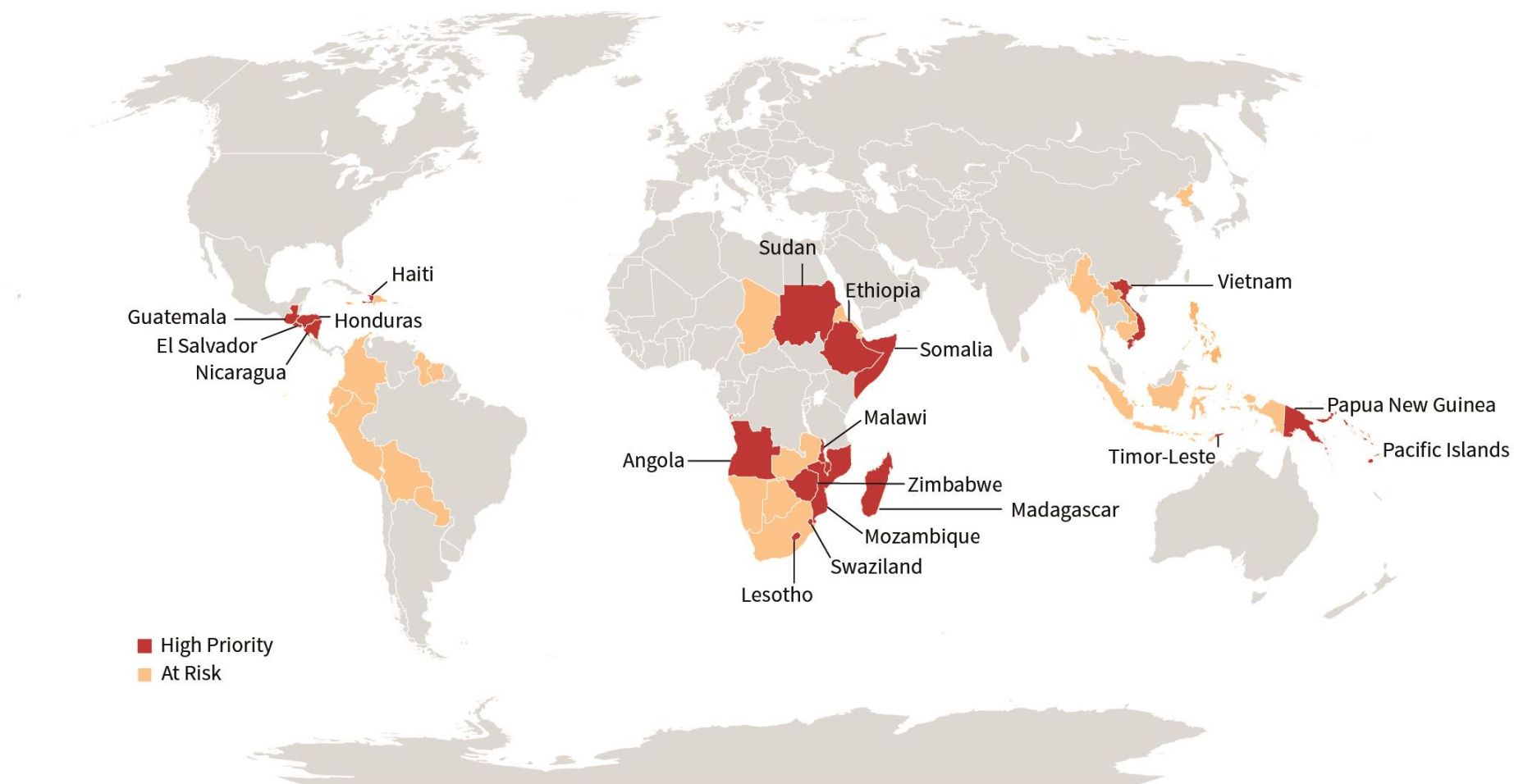
Latin America and the Caribbean

- Haiti – an estimated 3.6 million are food insecure. The 2015 cereal harvest was the lowest in 12 years with losses as high as 90 percent in most affected areas.
- Central America – has been experiencing the worst drought in decades, which has affected food insecurity for a second consecutive year, with over 3.5 million people in need of humanitarian assistance after suffering major crop losses due to prolonged drought conditions. Due to the delay of the first rains, next harvest (primera harvest) is foreseen at the end of august 2016 and until that moment, the food security situation is going to deteriorate.

Asia and the Pacific

- Fiji – crop damage from recent Category 5 cyclones is combining with unusual rainfall patterns to intensify food security risks. Total damage to crops and livestock is estimated at USD 61 million.
- Papua New Guinea – a third of the population – 2.7 million people – are affected by drought, frost and forest fires.
- Viet Nam – more than 83 percent of the country has been affected by drought, of which 18 provinces have declared drought and saltwater intrusion emergencies at different levels.

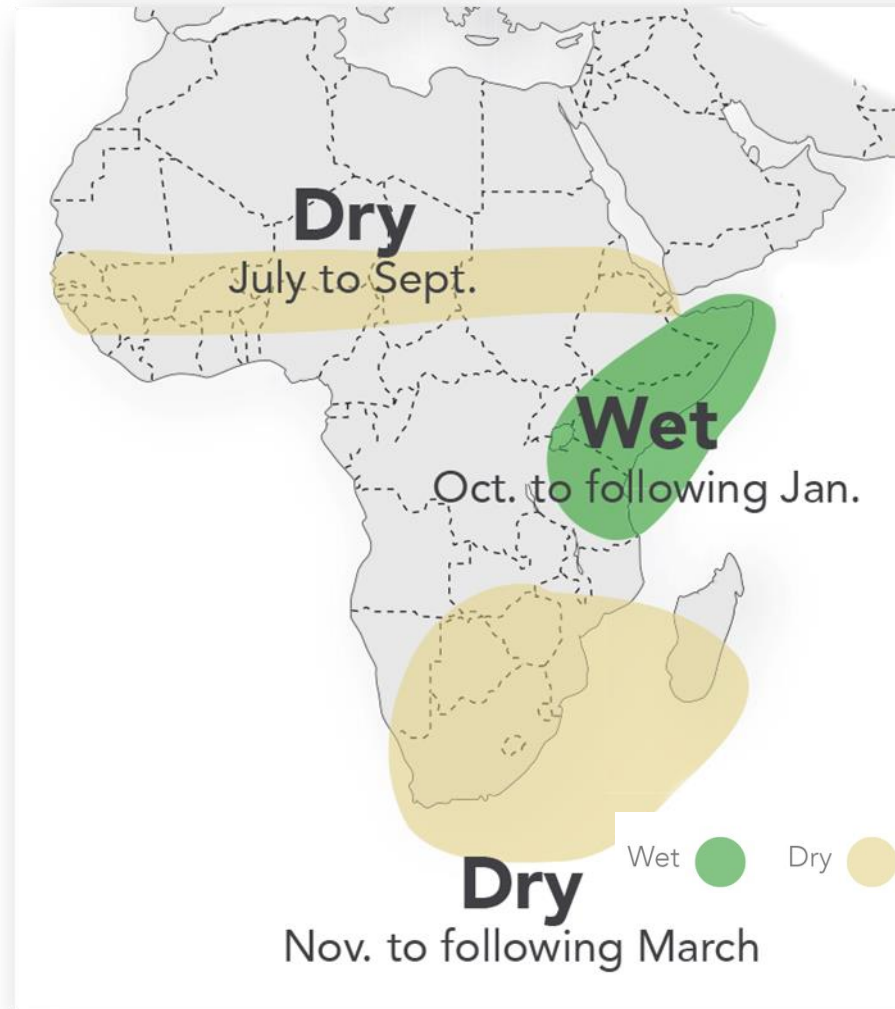
2015–2016 El Niño FAO priority countries



NORTH, EAST AND SOUTHERN AFRICA

Historical El Niño regional trends for Africa

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



For more information on El Niño and La Niña, go to: <http://iri.columbia.edu/enso/>

Sources:

1. Ropelewski, C. F., and M. S. Halpert, 1987: Global and regional scale precipitation patterns associated with the El Niño Southern Oscillation. *Mon. Wea. Rev.*, 115, 1606-1626;
2. Mason and Goddard, 2001. Probabilistic precipitation anomalies associated with ENSO. *Bull. Am. Meteorol. Soc.* 82, 619-638



Somalia

INFORM Rank: 1



Drought declared in the north (Puntland, Somaliland)



Animal losses, massive outmigration

Situation and outlook

- ◆ In 2016, Somali families will likely experience the double-shock of El Niño, followed by La Niña.
- ◆ In 2015/16, El Niño brought above-average rains and flooding to parts of southern and central Somalia, and severe drought in the north, with drought emergencies declared in both Somaliland and Puntland. It is very likely that La Niña will follow, and cause drought conditions across Somalia.
- ◆ Food security was among the greatest concerns. Nearly 4.7 million people, 38 percent of Somalis, are food insecure (IPC Phases 2, 3 and 4). Of this figure, 1.7 million people are in Puntland and Somaliland.
- ◆ In drought-affected areas, most communities experienced below-average rains for up to four seasons, spanning two years. Drought conditions led to increased food insecurity, cash shortages and outmigration of livestock, rising water prices and a sharp increase in debt among poor households. A combination of severely weakened livestock and heavy rains caused a spike in animal losses, particularly in the northwest.
- ◆ Performance of the important 2016 *Gu* rains varied across the country. Moderate rains in April and May were received in parts of Somaliland providing some immediate relief, however farmers struggled to purchase seeds and prepare the land. Cumulative amounts of rain were not sufficient to fully restore pasture and water conditions. It will take families multiple seasons to recover their losses..
- ◆ Southern and central Somalia experienced floods resulting from heavy 2016 *Gu* rains in the upper catchment of the Juba and Shabelle Rivers. The flooding affected about 100 000 people, of which 72 000 were displaced from the riverine areas. The community-based early warning and preparedness systems put in place by FAO and other partners reduced the flood damage.

Somalia El Niño response

Government and other partners

- El Niño contingency plan for preparedness and immediate response finalized. "Call for Aid: El Niño and Drought in Somalia" issued in late March 2016.

FAO

In response to El Niño, FAO actioned drought- and flood-related early warning, preparedness and response with robust fundraising. Results include:

Drought in the north

- Mass vaccination and treatment campaign underway in Puntland and Somaliland: vaccination for 6 million animals against CCP; treatment for 2 million animals against endo- and ecto-parasites, infectious diseases, wound and blood parasites.
- 6 000 households (36 000 people) reached with cash transfers amounting to USD 1 440 000 in Somaliland. Additional 2750 households to be reached in coming weeks.
- 18 water catchments rehabilitated in Somaliland increasing water storage capacity sufficient to water 68 000 animals during the dry period, 29 soil bunds rehabilitated, increasing water harvesting and helping to control soil erosion. A further 16 catchments are currently being rehabilitated (sufficient to water around 60 000 animals), as well as four contour bunds.
- 23 700 tractor hours, to enable farmers in Somaliland to prepare their land.

Rains/floods in the south

- Community-based early warning systems established (radio broadcasts, leaflets, posters and around 11 100 SMS alerts).
- Timely mapping of open river breakages and repair of around 100 breakages along the Juba and Shabelle rivers, saving farmers millions in food and income.
- 9 700 families equipped to build storage platforms to protect approximately 7 275 tonnes of household cereal seed and grain stocks worth USD 2.1 million.
- 1 450 families received agricultural input packages (i.e. seeds, fertilizer and training) to produce cereals and pulses sufficient to feed over 200 000 people for one month, worth USD 880 000.

Funding requirements

FAO appealed for USD 17 million to meet the immediate needs of more than 1 million drought-affected people in Somaliland and Puntland. This is part of FAO's Rapid Results Drought Response Plan which links to the "Call for Aid: Drought and El Niño in Somalia". **To date FAO has mobilized USD 15.8 million.**



Sudan

INFORM Rank: 6



Drought



Animal Losses

Situation and outlook

- ◆ In 2015, rainfall was predominantly late and intermittent with long dry spells throughout the country, which affected significantly the cultivation and planting of crops as well as pasture and water for livestock.
- ◆ National cereal production for 2015 was 15.4 percent below the five-year average (2009-2014). Below-average harvests, rising staple food prices, very poor pasture conditions and continued conflict in the Greater Darfur, South Kordofan and Blue Nile States are leading to much higher food insecurity in 2016.
- ◆ The 2016 lean season started in February/March, about two months earlier than normal, when prices of locally produced cereals began to rise as meagre household stocks were quickly dwindling
- ◆ About 4.6 million people are estimated to be in in Crisis (IPC Phase 3) or worse (excluding West and East Darfur). The number of rural, resident households expected in Crisis is about twice as high as in a typical year.
- ◆ Based on a recent FAO assessment on the impact of El Niño, 1.2 million vulnerable people are affected. More than 160 000 households produced less than 300kg of cereals, almost 9 000 households lost over 25 percent of their livestock assets (estimated at USD 6.8 million), and 130 000 households were affected by severe pasture and fodder shortage.
- ◆ According to the HAC report, 122 210 people (24 442 households) are currently affected by floods due to La Niña-induced heavy rains in 14 of the 18 states in Sudan.

Sudan El Niño response

Government and other partners

- The Ministry of Agriculture and Forestry also completed the Annual Crop and Food Security Assessment Mission (CFSAM) in December 2015, which was endorsed in April 2016.
- Together with the UN Humanitarian Country Team (HCT), the Sudan El Niño Mitigation and Preparedness Plan was developed, a three-month multi-sectoral mitigation and response plan that identified approximately 1.9 million resident farmers and pastoralists affected by El Niño.
- A flood preparedness plan was developed under the leadership of HAC and the collaboration of the different sectors. The FSL Sector flood preparedness plan targeted 65 000 households with required resources of USD 6.85 million.

FAO

- In December 2015, FAO was the technical lead and provided coordination support for the development of the HCT mitigation and preparedness plan. FAO also supported the implementation and completion of the CFSAM, along with WFP, FEWS NET and USAID.
- In light of field reports on the seriousness of the current dry season, FAO completed a situation analysis in May 2016 for 47 localities across nine states and the findings showed that there are 1.2 million vulnerable people affected.
- FAO has mobilized resources from DFID with UNICEF and WFP to address the impacts of El Niño in Kassala State in order to procure animal feed and water transportation services to support livestock health during an extremely difficult dry season for pastoralist families in eastern Sudan.
- FAO prepared a flood preparedness and response plan targeting 31 500 households (189 000 people) with agriculture and livestock inputs, along with livelihoods enhancing and income-generating schemes aimed at restoring and protecting livelihoods.

Funding requirements

USD 23 million is required for FAO's El Niño activities, in line with the UN-Government of Sudan's El Niño Mitigation and Preparedness Plan.



Ethiopia

INFORM Rank: 13



Drought in northeast



Flooding in northeast, southeast and southwest



Animal Losses

Situation and outlook

- Under the influence of El Niño, severe drought conditions emerged in 2015 after the combination of failed *belg* (spring) rains (which contribute to 5–10 percent of national annual production) and erratic and delayed *meher* (summer) rains (contributing to 90–95 percent of national production). Farmers and herders experienced severe levels of crop loss and livestock mortality and morbidity.
- The overall food security situation has improved, but only slightly – with the number of people requiring emergency food assistance reduced from 10.2 million to 9.7 million as of July.
- A revision of the hotspot *woreda* classification was issued by the Government in July, where the number of Priority 1 *woredas* slightly decreased 224 (March) to 206, indicating a slow improvement in the overall food security and nutrition situation.
- Despite the poor performance of the *belg* rains in March, production is expected to be at near-average levels in many areas as rainfall has been favourable since early April. Yields are expected to be good in eastern Amhara, central Oromia and in SNNP Regions. However, below-average harvests are forecast in eastern Oromia and southern Tigray Regions due to inadequate soil moisture.
- The number of livestock-dependent households requiring support has more than tripled since the start of the year, moving from 654 000 households to 2.4 million households based on results from the Government-led *belg* season assessment undertaken in June. Close to USD 36 million in funding is urgently required to keep the livestock sector afloat until the end of 2016.

Ethiopia El Niño response

Government and other partners

- The Government of Ethiopia is allocating USD 21.2 million for emergency seed support for the meher season and has committed over USD 75 million to livestock interventions.
- NGOs, FAO and other implementing partners have targeted about 85–90 percent of seed-insecure households in the four major crop-producing regions with seed support for the meher season and have dedicated USD 11.5 million to the livestock response.
- FAO is supporting the Government to prepare a contingency plan to address the upcoming needs in response to an expected La Niña event.

FAO

- Providing agricultural inputs to 127 000 households (635 000 people) in drought-affected regions including Amhara, Afar, Oromia, Tigray, Somali and SNNP. This includes nearly 3 700 tonnes of crop seed and 5.8 million units of potato cuttings.
- Distributing survival and supplementary livestock feed to 9 600 households is ongoing and supporting fodder production with forage seed provided to 1 600 households.
- Improving access to water for livestock through rehabilitation of 18 water points, benefiting 125 480 livestock owned by 12 783 households.
- Destocked 4 381 sheep and goats in Siti Zone, Somali Region, enhancing the income of 3 214 livestock sellers and improving the nutritional intake of 4 354 displaced households.
- Treated and/or vaccinated nearly 1.4 million animals belonging to 77 118 households.
- As co-chair of the Disaster Risk Management Agriculture Task Force, FAO is working closely with the Government of Ethiopia by coordinating emergency response and co-chairing Government-led Emergency Working Groups focusing on seed and livestock.

Funding requirements

USD 10 million is required by the end of September in order to increase the support to both farmers and livestock keepers affected by the drought and current floods.



Mozambique

INFORM Rank: 20



Drought



Floods in the North

Situation and outlook

- ◆ Results from the 2016 Vulnerability Assessment Committee's evaluation indicate that 1.98 million people are in need of emergency assistance.
- ◆ Drought has affected mostly southern and central regions mainly impacting the provinces Gaza, Inhambane, Manica, Maputo, Tete, Zambezia and Sofala.
- ◆ In 2016, maize production is estimated to have fallen by 35 percent compared with the previous year.
- ◆ The Government estimates that 459 000 farmers and about 864 000 ha of agricultural land were affected by drought. In addition, flooding has affected 194 100 people – the vast majority of whom are in the South.
- ◆ Some 533 700 cattle are at risk due to drought conditions, with an estimated 5 708 deaths.

Mozambique El Niño response

Government and other partners

- On 12 April, the Government declared a “red alert” for a period of three months – the highest state level of disaster – due to severe drought in central and southern Mozambique.
- The Government intends to boost assistance to populations affected by the drought, a strategy that provides about MZN 580 million (over USD 10 million) to strengthen food assistance under the contingency plan.
- The contingency plan includes a varied set of measures to prevent, mitigate and respond to the current crisis, such as:
 - disseminating forecast and adaptation messages;
 - distributing improved seeds and conducting animal disease surveillance;
 - improved water access for people as well as cattle; and
 - allocating resources for positioning and response.
- In March, CERF disbursed USD 4.6 million to the health, nutrition, WASH and food security/agriculture sectors.

FAO

- Supporting coordination efforts with the Humanitarian Country Team.
- Assisting the Government in preparing the response plan.
- Developing a programme targeting 761 400 producers in the Maputo, Gaza, Manica, Sofala and Tete Provinces with crop and livestock support.

Funding requirements

USD 8 million required to assist 371 400 households for interventions focused on droughts and floods. Priorities include safeguarding agriculture-based livelihoods; protecting and enhancing livestock production; increasing water access through improved infrastructure; and information, coordination and analysis.



Madagascar

INFORM Rank: 35



Drought



Flood

Situation and outlook

- ◆ It is estimated that close to 1.4 million people are food insecure in seven districts of southern Madagascar (80 percent of the districts' population) following a fourth consecutive year of crop failure and aggravated by the impact of El Niño-induced drought and a locust plague infestation.
- ◆ Since October 2015, the south and southwestern regions of the country have had very poor rainfall, which has disrupted crop development and damaged pasture for livestock. Water for human, animal and agricultural use has been scarce.
- ◆ Increased chance of normal to below-normal rainfall in eastern and southern Madagascar, and normal to above-normal in the western region.

Madagascar El Niño response

Government and other partners

- The Government has yet to officially declare a state of emergency in the Grand Sud of Madagascar.
- FAO is assisting the Government to conduct a crop and food security assessment which will determine the extent of the impact of El Niño and inform Government and partner decision-making and form the basis for a revised response plan.
- A multisectoral national response plan has been formulated under the leadership of the Bureau of Risk and Disaster Management to provide emergency assistance to 665 000 vulnerable people severely affected by drought and the effects of El Niño, of which 530 000 (or 102 000 households) practice small-scale farming. The overall appeal to address humanitarian needs is estimated at USD 69 million, of which USD 46 million is needed to cover agriculture and food security needs.
- To-date, only one-third of the needs have been met by FAO, WFP and partner NGOs.

FAO

- Co-leading Food Security and Livelihoods Cluster activities.
- More than 76 000 vulnerable farming households need immediate emergency assistance between April and November 2016, as part of the overall strategy to strengthen the resilience of 347 000 households beyond emergency assistance.

Funding requirements

USD 12.4 million is required to assist 347 000 households, of which a gap of USD 10.2 million remains to safeguard agriculture-based livelihoods, protect and enhance livestock production, increase water access through improved infrastructure and information, coordination and analysis.



Malawi

INFORM Rank: 65



Drought in the south



Floods in the north

Situation and outlook

- ♦ Rainfall patterns in Malawi were erratic throughout the country during the 2015/16 planting season, with the late onset of rains and large rainfall deficits in southern parts of the country, compromising off-season farming activities.
- ♦ A rapid assessment of the impact of the prolonged dry spells on agricultural production conducted by the Ministry of Agriculture with FAO support in March 2016 revealed that over 30 percent of cultivated land (654 344 ha) belonging to more than 1.8 million farming households (44 percent of all households) was affected.
- ♦ Of the area affected, 270 000 ha of cropland was severely affected, resulting in a second consecutive year of reduced cereal output in 2016, with a 40 percent decrease in maize production (the main staple crop) as compared with the 2013/14 season.
- ♦ Total cereal production has been estimated at about 16 percent below last year's production and 40 percent below the previous five year average.
- ♦ According to the Malawian Vulnerability Assessment Committee, about 6.5 million people will require emergency assistance, up from 2.8 million people in the previous year. Over 47 percent of children under the age of five are currently malnourished, while the number of children with severe acute malnutrition has doubled in the last three months.
- ♦ The prices of maize declined seasonally in May 2016, but the national average maize grain price still remains about two-thirds higher than its year-earlier value, severely straining food access. Negative coping mechanisms, such as selling livestock and poultry, are becoming more frequent as the lean season approaches and food prices quickly increase.

Malawi El Niño response

Government and other partners

- On 12 April, the President of Malawi declared a State of National Disaster, citing a projected maize deficit of over 1 million tonnes, including the needs for the Strategic Reserve and price stabilization mechanisms for the 2016/17 lean season.
- The Government is intensifying existing social support services (safety nets), e.g. social cash transfers; income-generating public works programme; inputs for assets programme; school feeding; and farm input subsidy programme.
- The Humanitarian Country Team has launched a Food Insecurity National Response Plan, which urgently appeals for USD 395 million to cover urgent needs for food, agriculture and other sectors during the coming months.
- CERF contributed USD 10 million to support 2015/16 planting season efforts to tackle food insecurity caused by drought conditions.
- In January 2016 the Humanitarian Window of the One UN Fund in Malawi mobilized USD 5.4 million with DFID to strengthen El Niño response.

FAO

- Co-leads the Agriculture Cluster, which supported the Ministry of Agriculture and other stakeholders in designing the Agriculture Response Plan for El Niño. The total value of the agriculture component in the national response plan 2016–2017 is USD 30.8 million. Currently, only 5 percent of the plan is funded.
- FAO is providing technical assistance to the Ministry of Agriculture and cluster members to gather information about the current situation in the country and analyse the areas in which the food production will be affected.
- In the 2015/16 main and winter seasons, FAO provided some 72 000 households with seed, planting materials and fertilizers in six of the most-affected districts.
- Near 22 000 cattle have been vaccinated and treated against foot-and-mouth disease, 50 000 households supported with vaccinations against Newcastle disease and restocking households with small ruminants.
- Funding from DFID has been received to support affected farmers with small livestock and vaccination in six districts widely affected by dry spells.
- Further support from other donors is required to support the cluster response plan and the urgent needs of small-scale farmers in Malawi.

Funding requirements

USD 10.5 million required to assist 260 000 households, which remains just 28 percent funded. Priorities include safeguarding agriculture-based livelihoods, protecting and enhancing livestock production, and information, coordination and analysis.



Angola

INFORM Rank: 68



Drought

Situation and outlook

- ◆ Currently 1.25 million people are in need of emergency assistance due to the drought that mainly affected the southern provinces, particularly in Cunene, Huila, Cuando Cubango and Namibe.
- ◆ Cereal production in 2016 in southern provinces are estimated to have remained at well below-average levels, but crops performed better in central and northern areas.
- ◆ It is estimated that 360 000 cattle have been lost (equivalent to USD 345 million) due to lack of water and feed.
- ◆ Outbreaks of foot-and-mouth disease, reported on the border with Namibia, have affected livestock prices due to quarantine.
- ◆ Water constraints, particularly in Cunene, are a danger for people and animals.
- ◆ Prices of maize, sorghum and millet increased rapidly, which has affected food security.
- ◆ The coastal areas of Benguela and Kuanza Sul are also affected by drought and this could aggravate food insecurity and malnutrition.

Angola El Niño response

Government and other partners

- The Government has put in action the contingency plan for southern Angola and civil protection, agriculture and health authorities are working together.
- The UN started a USD 5 million emergency project for food insecurity, malnutrition, health services and resilience to assist the most vulnerable population.
- NGOs and several partners are working on malnutrition and supplying therapeutic medicines to combat stunting in children.
- Ministry of Health has started revitalization of health services, particularly to combat yellow fever, malaria and chikungunya.
- The European Union is contributing to the emergency programme and preparing a post-emergency programme to reinforce resilience in order to improve the next agricultural season and support livestock losses.

FAO

- FAO is assisting 300 000 people in need with CERF resources and has an emergency TCP project to support resilience in Cunene, Namibe and south of Huila for 1 000 households (almost 6 000 people).

Funding requirements

USD 40 million required to assist 290 000 households. Priorities include protecting and enhancing livestock production, safeguarding agriculture-based livelihoods; rehabilitating water points through cash-for-work activities; information, coordination and food security analysis.



Zimbabwe

INFORM Rank: 71



Drought



Animal Losses

Situation and outlook

- ◆ The most recent rainfall season has been the driest in the last 35 years, with 2.8 million food insecure in the first quarter of 2016 as a result of poor harvests.
- ◆ Food insecurity is expected to increase drastically, with 4.1 million Zimbabweans food insecure at the peak of the lean season – about 40 percent of the rural population.
- ◆ Maize production in 2016 is estimated to have dropped by about one-third compared with 2015 output. This year's sharp decline is mostly attributable to drought conditions, particularly in southern areas, driven by the El Niño episode.
- ◆ The price of maize, the staple food for many Zimbabweans, has risen by approximately 13 percent above the five-year average. Increasing prices and diminishing purchasing power are limiting access to food for the most vulnerable households affected by the drought crisis.
- ◆ Over 25 000 cattle have died due to the effects of drought, and pasture conditions range from poor to very poor. Livestock body conditions are also worsening in the most affected areas due to water and feed shortages, and outbreaks of foot-and-mouth disease are further weakening herding households' coping capacities.

Zimbabwe El Niño response

Government and other partners

- The President of Zimbabwe declared a State of National Disaster on 5 February and appealed for USD 1.5 billion for emergency needs.
- In response to the Government's appeal, the UN and humanitarian partners prepared the Zimbabwe Humanitarian Response Plan (covering the period from April 2016 to March 2017) with a budget of USD 360 million to address the needs of five sectors.
- The Government aims to import between 500 000 and 700 000 tonnes of grain; as of 1 July, 145 000 tonnes had been imported.
- Deliveries from local farmers to the Grain Marketing Board have improved and at 74 000 tonnes, surpassing 2014/15 season deliveries.
- Public works programmes are underway, targeting 106 000 vulnerable households negatively affected by El Niño and who cannot afford subsidized grain being provided by the Government.

FAO

- Coordinates the Agriculture Cluster, which contributed to the development of the Zimbabwe Humanitarian Response Plan.
- Coordinates the National Steering Committee for the Coordination of Agriculture Interventions, chaired by the Ministry of Agriculture, Mechanization and Irrigation Development.
- Supported over 6 700 households with livestock survival feed and 8 000 households with grain and legume seeds.

Funding requirements

USD 35.2 million is required to fully implement FAO Zimbabwe's El Niño response plan, which is just 8 percent funded. Priorities include providing subsidized drought-tolerant seeds (small grains and legumes); subsidized survival stock feed; rehabilitating water points; animal health interventions; and strengthened early warning systems.



Situation and outlook

- ◆ Approximately 680 000 people are in need of humanitarian assistance up to May 2017, of which over 480 000 people require both life-saving and livelihood support and over 200 000 people require assistance to protect their livelihood assets. The impacts of El Niño are further compounded by vulnerability factors, such as a 25 percent HIV prevalence and chronic malnutrition at 33 percent among children under five years of age.
- ◆ The 2015/16 agricultural season has been very poor. The total production of maize is estimated at 25 400 tonnes (a reduction of 61 percent compared with the previous season), sorghum at 1 100 tonnes (reduction of 88 percent) and wheat at 4 400 tonnes (reduction of 38 percent). The decline in production reflects the severe dry conditions encountered from August 2015 until January 2016, as well as the impact of frost in the mountainous regions.
- ◆ Food prices have risen sharply, mostly due to poor production, low currency value and high prices in South Africa (the main source of imports for Lesotho).

Lesotho El Niño response

Government and other partners

- On 22 December, the Government declared a State of Drought Emergency.
- The Government activated the Drought Preparedness and Mitigation Plan, estimating initial funding needs for the first 6 months at USD 18.1 million. The Government plans to review the response plan in the coming weeks.
- In addition to the initial response, the Government approved a food subsidy programme, reducing the prices of maize, split peas and beans by 30 percent from 1 June 2016.

FAO

- FAO works closely with Government Ministries and NGOs in designing and operationalizing the emergency response.
- Since January 2016, FAO supported and actively participated in coordination structures and joint needs assessments focusing on food security and agriculture.
- FAO is targeting 25 000 households with livelihood support, combining input distribution, community productive assets and promotion of climate-smart agriculture technologies such as conservation agriculture, home gardening and nutrition, and sustainable land management.
- FAO is also complementing the Government's social protection cash transfers with home gardening and nutrition packages targeting 50 000 of the poorest households affected by the drought and resulting increases of food prices.
- FAO intends to protect livestock assets through animal health, and improvement of water and feeding sources.

Funding requirements

USD 11 million is required for the full implementation of FAO's Emergency Response Plan to support more than 75 000 drought-affected households. Thus far, USD 5.3 million has been received from ECHO, CERF, DFID, FAO and the Netherlands.



Drought



Animal Losses

Situation and outlook

- ♦ An estimated 638 251 people (nearly two-thirds of the country's population) will be food insecure at the peak of the lean season in late 2016/early 2017, according to the latest vulnerability assessment reports. This is a sharp increase from the 44 622 people in July 2015. If the onset of the rains is delayed or insufficient, it is expected that food insecurity will escalate.
- ♦ Maize production in 2016 is estimated at 33 460 tonnes, down 64 percent from the previous year, mostly as a result of below-average seasonal rains.
- ♦ The national average maize meal price in March 2016 was 64 percent its year-earlier value, mainly reflecting high prices in South Africa and low domestic production.
- ♦ Extremely limited pasture and water due to the effects of El Niño have caused the death of over 80 000 cattle.
- ♦ Rural populations remain vulnerable as their water supply schemes depend mainly on groundwater, and therefore are not stable.

Swaziland El Niño response

Government and other partners

- The Government declared a drought emergency in February 2016 and launched the National Emergency Response, Mitigation and Adaptation Plan.
- Water restrictions have been put in place by the Government, reflecting lower-than-normal rainfall and reservoir levels.
- CERF approved USD 3.14 million to commence immediate, life-saving humanitarian interventions. This funding follows a USD 75 000 emergency cash grant from OCHA to provide water to some of the most affected schools, hospitals and communities and a USD 100 000 from the UNDP Crisis Bureau Unit for coordination.

FAO

- FAO is currently targeting vulnerable households with livestock feed and nutrition gardens.

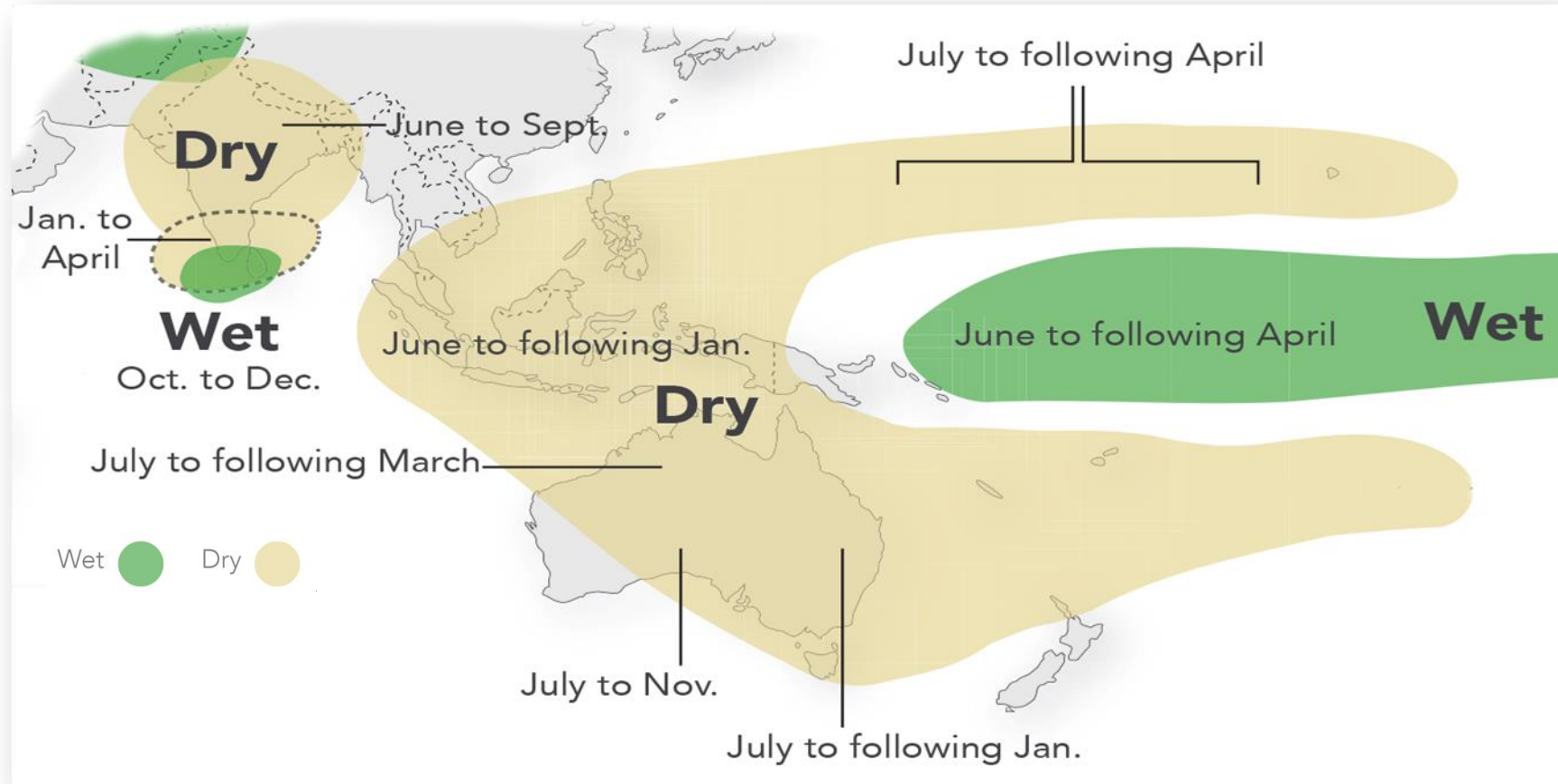
Funding requirements

USD 8.4 million is required to assist 72 700 households. Priorities include safeguarding agriculture-based livelihoods; livestock restocking; animal health interventions; increasing water access through cash-for-work activities to rehabilitate water points; and information, coordination and analysis.

ASIA AND THE PACIFIC

Historical El Niño regional trends for Asia and the Pacific

The Institute for Climate and Society at Columbia University has developed a typology of El Niño climatic impacts based on analysis of El Niño events over the years. The following map of Asia and the Pacific indicates the typical impacts of El Niño on the continent.



For more information on El Niño and La Niña, go to: <http://iri.columbia.edu/enso/>

Sources:

1. Ropelewski, C. F., and M. S. Halpert, 1987: Global and regional scale precipitation patterns associated with the El Niño Southern Oscillation. Mon. Wea. Rev., 115, 1606-1626;
2. Mason and Goddard, 2001. Probabilistic precipitation anomalies associated with ENSO. Bull. Am. Meteorol. Soc. 82, 619-638



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Papua New Guinea

INFORM Rank: 31



Drought



Flood



Cold wave

Situation and outlook

- ◆ 2.7 million people are affected by drought, frost and forest fires in Papua New Guinea. The Prime Minister's office says 1.3 million are classed as being in Category 4 (out of 5) due to drought.
- ◆ After months of suffering from an El Niño-driven drought, large parts of the country have experienced torrential rain since early February, exacerbating the existing levels of vulnerability. The resulting flooding and landslides have affected homes, food gardens, water sources and infrastructure in several provinces. In particular, many Highland and Momase region provinces have sustained extensive damage.
- ◆ Reduced access to clean drinking water and reduced water availability for agricultural activities has affected vulnerable communities. In the Highland provinces, food gardens have been severely affected by frost and drought and two provinces have already declared a State of Emergency.
- ◆ Reduced food availability resulted in drastic increases in basic food prices, raising concerns about food access by the most vulnerable section of the population.
- ◆ Disease outbreaks and insect infestation in parts of the country will further negatively affect the 2016 food crops, currently at the critical growing stage.

Papua New Guinea El Niño response

Government and other partners

- The Government allocated USD 8.5 million to the drought response for four inter-agency rapid assessments and initial emergency relief to the most affected provinces in the Highlands.
- Department of Agriculture and Livestock (DAL), National Agriculture Research Institute, and National Agriculture Quarantine and Inspection Authority are closely monitoring the situation. Plan and funding proposals have been put forward to donors.
- 3 100 tonnes of food relief has been distributed in the Western Province.
- The humanitarian country team has prepared an El Niño response plan appealing for USD 37 million.
- CERF has been approved to fund a rapid response comprising a two-month food relief intervention (USD 3.99 million) coupled with a three-month lifesaving nutrition intervention (USD 736 000).
- WFP is implementing an emergency operation with plans to distribute fortified rice to 207 000 people in the six worst affected local level government areas. 130 135 people have been reached so far.

FAO

- Providing sectoral coordination support for drought relief and mitigation to the newly established task force on the 2015-2016 El Niño, led by DAL.
- Deployed an assessment mission to develop a preparedness and response strategy for the food security sector, jointly with WFP.
- Developed an El Niño Early Action and Response Plan for which USD 1 000 000 has been committed from internal sources.
- Increased FAO staff in country for food security coordination.

Funding requirements

USD 4.9 million required to assist 560 000 subsistence farmers, of which USD 1 million has been mobilized. Priorities include working with partners to support farming families in the worst-affected provinces with drought-tolerant crops and smart irrigation material (e.g. drip-irrigation systems).

Pacific Islands (Fiji, Solomon Islands, Tonga, Vanuatu, Marshall Islands, Palau)



Drought



Cyclone



Fisheries

Situation and outlook

- ◆ Drought is forecast for northern and western Pacific areas threatening the livelihoods and well-being of 1.9 million people across the Pacific.
- ◆ Tropical Cyclone Winston hit Fiji on 20 and 21 February, severely affecting 350 000 people (40 percent of the population) and damaging 100 percent of crops in the hardest-hit areas. Total damages to crops and livestock is estimated at USD 61 million. This was followed by Tropical Cyclone Zena in early April.
- ◆ 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.
- ◆ In Vanuatu, the Ministry of Agriculture through the Risk Resilience Unit is continuing with the implementation of the El Niño food security early warning system which provides information about the effects of the El Niño on food production and identified key short- and medium-term interventions.
- ◆ The Federated States of Micronesia, Marshall Islands and Palau have declared a State of Emergency and this remains in effect as a result of El Niño-induced drought conditions.
- ◆ Ten of the 16 states in Palau are most affected by drought. Significant losses to crop and livestock production has been reported. All farm irrigation activities have been suspended due to low levels of reservoir water.

Pacific Islands El Niño response

Government and other partners

- The State of Natural Disaster in Fiji has ended but recovery and rehabilitation continues with 67 000 people currently targeted with Government water deliveries in villages and schools, especially on the outer islands. The Government is also distributing rice and tinned fish to affected communities.
- The Republic of the Marshall Islands have estimated a needs requirement of USD 3.1 million for the Food Security and Agriculture Cluster's nine-month recovery plan from February 2016. A significant proportion of this estimate is for supplemental food baskets for the affected population.
- The Government of Vanuatu provided USD 480 000 in emergency El Niño funding for water, sanitation, hygiene, food security and logistics needs and work continues.

FAO

- FAO's subregional office for the Pacific is implementing a project on El Niño Drought Preparation and Monitoring in Micronesia and Melanesia, of which USD 400 000 has been received from OFDA. It focuses on assisting governments to mitigate risks to food and nutrition security.
- Farmers in Vanuatu are being trained on food preservation methods through a Belgian Trust Fund project on emergency support to re-establish agricultural production in communities affected by Cyclone Pam.
- In Fiji, a FAO multidisciplinary team is supporting the most-affected areas through three emergency response projects.
- USD 150 000 drought recovery support is earmarked for the Republic of the Marshall Islands to assist with the procurement and distribution of seeds/seedling inputs for immediate recovery of agricultural livelihoods of affected communities.

Funding requirements

USD 61 million required in Fiji to provide immediate crop, livestock and fisheries support to 25 370 cyclone-affected people.

USD 2.5 million required to support immediate drought recovery in Micronesia, Marshall Islands and Palau.



Drought

Outlook

- ◆ The food security situation in Timor-Leste deteriorated as a result of the negative impact of the severe drought.
- ◆ Severe localized cereal production shortfalls for the second consecutive year, particularly in the municipalities of Ainaro (southwest), Lautem (east), Ermera (northwest), Liquica (north), coastal regions of Viqueque (south) and outskirts of the capital, Dili, are expected to exacerbate the food security situation of vulnerable groups. According to the latest official estimates, the prolonged drought has affected approximately 350 000 people (one-third of the total population), mainly located in central highlands, eastern and southwestern parts of the country.
- ◆ Access to food also remains a major challenge in upland areas and remote villages.
- ◆ An estimated 60 430 drought-affected households reported animal deaths, including cows, buffalos and pigs due to lack of water and fodder/feed, while 21 percent or about 25 611 drought-affected households have sick animals due to erratic rainfall from February to March 2016.
- ◆ The 2016 main season rice and maize production is forecast to decrease considerably as a result of water shortages in the northeast, southeast and southwest coastal areas.
- ◆ FAO preliminary forecasts for the aggregate rice production in 2016 is at 60 000 tonnes, a 6 percent drop from last year's reduced level and 30 percent below the five-year average. Similarly, the 2016 maize output is forecast to decrease by a further 8 percent from last year's already sharply-reduced level.
- ◆ Projected cereal deficit during the marketing year 2016/17 could be as high as 174 377 tonnes (rice: 110 619 and maize: 63 758).

Timor-Leste El Niño response

Government and other partners

- Ministry of Agriculture and Fisheries (MAF), with support from the inter-ministerial Food Security and Nutrition coordinating body issued early warning messages to raise awareness of El Niño and possible actions to mitigate potential impact.
- The Government, together with the Humanitarian Country Team (HCT), developed a preparedness and emergency response plan for El Niño. Regular monitoring and coordination mechanisms have been put in place.
- The Government has prepared 3 000 tonnes of rice and imported an additional 9 000 tonnes of rice to be distributed to 120 000 El Niño-affected individuals. In addition, 140 tonnes of maize and rice seeds are to be distributed to El Niño-affected farmers. The Ministry of Interior drilled boreholes in areas severely affected by drought.

FAO

- Leading the HCT El Niño desk analysis and providing regular monitoring, and advising the Government and HCT members on weather information and seasonal crop indicators.
- Provided technical support to the Ministry of Agriculture through the District Food Security Officers in conducting field monitoring on the impact of El Niño at village level.
- Distributed additional maize and cover crops seeds to conservation agriculture programme participants to replace El Niño-affected fields.
- Provided technical and financial support to the Ministry of Agriculture and Fisheries for a Rapid Household Assessment on the impact of El Niño on agriculture, in partnership with Mercy Corps and Catholic Relief Services, which is covering 7 500 households and 500 key informants, including the publication of the report.

Funding requirements

USD 10.6 million is now required for rainwater harvesting, distribution of drought/climate-resistant seeds, promotion of climate-smart/conservation agriculture, restocking livestock, restoring livelihoods, and monitoring and increasing coverage of agro-meteorology information.



Viet Nam

INFORM Rank: 85



Drought



Flood

Outlook

- ◆ Since mid-2015, 52 out of 63 provinces – more than 83 percent of the country – have been affected by drought, of which 18 provinces have declared a state of emergency.
- ◆ Rains since mid-May improved over large areas of the country. Although drought conditions are over in the Mekong Delta and the Central Highlands, it is still on-going in South-Central Viet Nam, until September.
- ◆ 1.1 million people are food insecure and 1.75 million people have completely lost their livelihood.
- ◆ 659 245 ha of crops have been damaged, and 22,150 hectares could not be planted due to the drought conditions. 61.6 percent of all crops are considered to be very severely to extremely damaged or lost.
- ◆ 6 529 animals (cows, pigs, buffalo, and chickens) have perished.
- ◆ 69 008 ha of aquaculture has been damaged.
- ◆ Severe implications for food security and cash availability at household level, decreasing purchasing power of the population affected in terms of food and agricultural inputs (i.e. seeds, fertilizers, feed, etc.). Already the households short in cash are relying on borrowed money to cover their basic needs or major expenditures, increasing the proportion of households in debt.
- ◆ With crops currently being re-planted and harvesting only expected by October-November, farmers now experience a lean period with no significant income being generated.
- ◆ There is a 75 percent likelihood of La Niña conditions occurring from September onward, potentially bringing heavy rainfall and floods to the already affected areas.

Viet Nam El Niño response

Government and other partners

- The Government has distributed a total of 9 822 tonnes of rice to 655 000 people in the 18 drought-affected provinces. Distributions of cash and seeds to affected households to alleviate hunger and prevent a further erosion of resilience are also on-going. Some 3 889 metric tonnes of rice are needed to cover food needs of 260 000 people over July-August in Gia Lai, Dak Nong, Ninh Thuan, Binh Thuan and Ca Mau.
- Thirty-four percent of the joint UN/MARD Emergency Response Plan appeal of USD 48.5 million has been mobilized from various donors.

FAO

- The FAO led joint WFP/UN Women/MARD “Agriculture, food security and livelihood needs assessment in response to the drought effects related to El Niño in Vietnam” was carried out from 2 to 26 May in 6 of the most affected provinces.
- CERF allocated USD 665 000 to FAO for emergency distribution of seeds and fertilizers.
- In addition to USD 90 000 for emergency assessments and USD 200 000 for the development of a drought index in Ninh Thuan, FAO allocated a further USD 400 000 from its own emergency resources for restocking of poultry, provision of feed and vaccination as well as training on improved husbandry practices and biosafety in drought affected areas.
- ECHO allocated USD 887 374 for unconditional cash transfer, agricultural voucher schemes as well as early warning and the distribution of post-harvest equipment.

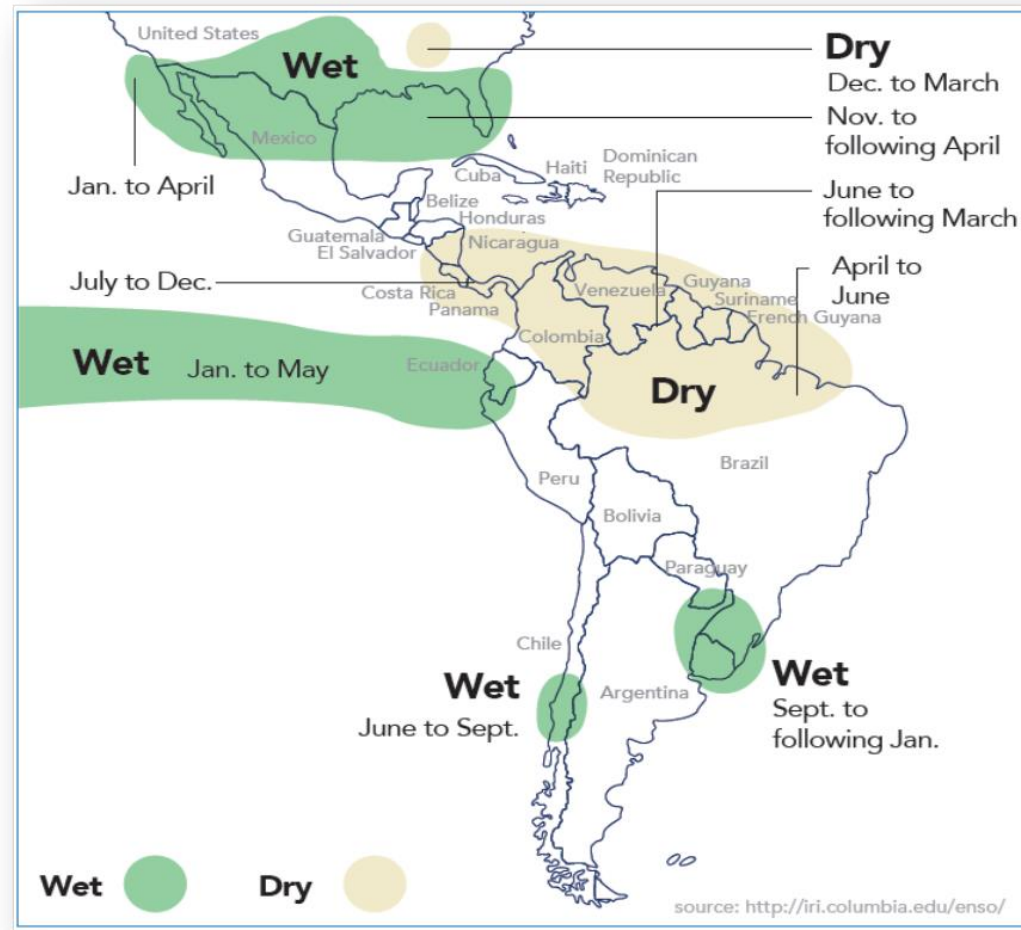
Funding requirements

- ◆ **USD 5 million** is required to respond to all 15 affected provinces for the next 6 months. Of this appeal, 45 percent has been received for immediate life saving interventions. Funding gaps remain for food security and livelihoods, with only 12 percent of the required 20.4 million mobilized so far.

LATIN AMERICA AND THE CARIBBEAN

Historical El Niño regional trends for Latin America and the Caribbean

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



For more information on El Niño and La Niña, go to: <http://iri.columbia.edu/enso/>

Sources:

1. Ropelewski, C. F., and M. S. Halpert, 1987: Global and regional scale precipitation patterns associated with the El Niño Southern Oscillation. Mon. Wea. Rev., 115, 1606-1626;
2. Mason and Goddard, 2001. Probabilistic precipitation anomalies associated with ENSO. Bull. Am. Meteorol. Soc. 82, 619-638



Haiti

INFORM Rank: 22



Drought

Situation and outlook

- ◆ Approximately 3.6 million people are food insecure (34 percent of the population), and 1.5 million are severely food insecure.
- ◆ Acute global malnutrition is over 15 percent in four communes.
- ◆ At least 200 000 people are in an extreme food emergency situation.
- ◆ Production of cereals and starchy roots in 2015 dropped to its lowest level in 12 years, after two consecutive years of drought.
- ◆ 57 percent of the households affected by the drought in the last six months have accumulated debt, 89 percent have lost their 2015 spring harvest and only 37 percent have planted for the 2016 winter season. Of those who have planted, 43 percent forecast production losses.
- ◆ Vulnerable households in the South, South-East, North-East, North-West and Artibonite are affected by food insecurity due to the combination of failing harvest and rising food prices.
- ◆ The impact of El Niño is likely to rapidly increase the number of acutely food insecure people. At the end of 2015, some 37 communes were in Phase 3 of IPC, and this number is expected to further increase during early 2016.
- ◆ The influx into Haiti of over 50 000 people of Haitian descent from the Dominican Republic has aggravated the humanitarian situation and has pressurized scarce water and food supplies along the border.
- ◆ With the conclusion of the 2015-2016 El Niño event, rainfall levels have recovered and weather conditions are favourable for planting of the 2016 main cereal season. However, access to inputs may prevent the most affected households from benefiting from the improved weather conditions.

Haiti El Niño response

Government and other partners

- Early warning has been led by the National Committee for Food Security (CNSA), Ministry of Agriculture, FEWSNET and GIEWS. Initiatives are in place for the reinforcement of monitoring and surveillance mechanisms and to improve coordination among stakeholders.
- The Government and humanitarian community, with the involvement of technical agencies (national and departmental), are targeting rural communities, focusing on food and water distribution, rehabilitation of water supply systems, and cash-for-work activities.
- ECHO has included in the Humanitarian Implementation Plan for 2016 a dedicated response to the drought, coupled with the effects of El Niño.

FAO

- A food availability market assessment has taken place.
- Distribution of seeds and tools is ongoing in the most drought-affected Departments (South-East and North-West) through the UN's CERF system.
- Contributed to the provisional assessment of the spring agricultural season, carried out by CNSA.
- Strengthening the community adaptation capacity and improving the resilience of the agroecosystems through training, farmer field schools, implementation of good practices and techniques such as agroforestry, conservation farming, and integrated production models.

Funding requirements

USD 7.9 million required to support 35 000 rural households (175 000 people) in South-East, North-West, Artibonite, Nippes, Grande Anse and South Departments. Priorities include reducing the food gap and enhancing nutrition through support to agricultural production, safeguarding livestock-based livelihoods to diversify income sources as part of the resilience-building strategy and enhancing the resilience of vulnerable households affected by drought and the El Niño phenomenon.



Guatemala

INFORM Rank: 30



Drought

Situation and outlook

- ◆ Recent joint assessments indicate that 1.5 million people are affected by drought.
- ◆ Around 915 000 people have been recorded as severely and moderately food insecure, as drought has led to a third consecutive year of decreased harvests.
- ◆ According to the Ministry of Agriculture, Livestock and Food (MAGA) and the Secretariat of Food Security and Nutrition, around 175 387 families have reported between 50 and 100 percent loss of maize and bean harvests in the Dry Corridor (2015 harvests).
- ◆ MAGA has reported total financial losses for maize of USD 30.8 million for around 82 000 tonnes. For black beans, total losses are reported in the amount of USD 102.3 million for around 118 182 tonnes (2015 harvests).
- ◆ Due to the delay of the first rains, the next harvest (primavera harvest) is foreseen at the end of August 2016 and until that moment, the food security situation is going to deteriorate.

Guatemala El Niño response

Government and other partners

- WFP, in conjunction with MAGA and the Secretariat for Food Security and Nutrition, is providing food assistance to 83 000 families.
- Through a food-for-work programme, the Government is supporting the creation of water reservoirs and improving local water management and soil conservation practices.

FAO

- Implementing a response and resilience programme in the Dry Corridor to strengthen the disaster risk management capacities of the national and local authorities, establish information and early warning systems and through the watershed management plan — promote good practices and technologies, reducing the impact of extreme climate events with special emphasis on drought prevention and mitigation (short cycle and drought-resistant crops, water harvesting systems, community contingency funds, agroforestry, etc.). Since the beginning of El Niño (2014) FAO has supported 7 890 vulnerable households (39 450 people). Source of funding are: FAO (TCP-E), Belgium (SFERA), Sweden and Netherlands (FMM).

Funding requirements

USD 7 million required to fund immediate livelihoods restoration activities.



Honduras

INFORM Rank: 47



Drought

Situation and outlook

- ◆ Recent estimates indicate that 1 350 000 people are affected by drought.
- ◆ Around 461 000 people have been recorded as severely and moderately food insecure.
- ◆ Estimates indicate crop losses (2015 harvests) are in excess of 60 percent in the maize growing areas and 80 percent in bean growing areas.
- ◆ Food prices were 20 percent higher than in August 2014.
- ◆ Due to the delay of the first rains, next harvest (*primera* harvest) is foreseen at the end of August 2016 and until that moment the food security situation is going to deteriorate.

Honduras El Niño response

Government and other partners

- The Government declared a State of Emergency and is implementing a Drought National Action Plan for food assistance and support to production.
- 178 770 families have received food assistance.
- WFP is already providing direct assistance to 29 percent of the affected population.

FAO

- Implementing a response and resilience programme in the Dry Corridor to strengthen disaster risk management capacities of the national and local authorities, establish information and early warning systems and — through the watershed management plan — promote good practices and technologies, reducing the impact of extreme climate events with special focus on drought prevention and mitigation (short-cycle and drought-resistant crops, water harvesting systems, community contingency funds, agroforestry, etc.). Since the beginning of El Niño (2014) FAO has supported 8 209 vulnerable households (41 045 people). Source of funding are: FAO (TCP-E), United Nations (CERF), Belgium (SFERA) and Netherlands (FMM).

Funding requirements

USD 3.4 million required to fund immediate livelihoods' restoration activities.



Nicaragua

INFORM Rank: 64



Drought

Situation and outlook

- ♦ Vulnerable farmers in the Dry Corridor have lost up to 100 percent of the main maize harvest (*Primera*). Moreover, the compounding effects of previous poor agricultural seasons and weakened livelihoods could aggravate the situation.
- ♦ The Government hasn't released any alert on the food security situation.
- ♦ White maize prices rose by 8 percent in March and were 37 percent higher than a year earlier, underpinned by low market supplies following the stagnant production in 2015.
- ♦ Due to the delay of the first rains, the next harvest (*primera* harvest) is foreseen at the end of August 2016 and until that moment the food security situation is going to deteriorate.

Nicaragua El Niño response

Government and other partners

- Government is implementing a Drought National Action Plan including distributions to 27 000 households and the delivery of 23 000 technology packages which include seeds for planting.

FAO

- Through the resilience programme for the Dry Corridor, FAO is providing technical support to prevention and mitigation actions.

Funding requirements

The Government has not requested any emergency support from FAO.



Situation and outlook

- ◆ Recent estimates indicate that 700 000 people (11 percent of the population) are affected by drought.
- ◆ 190 000 households are facing severe or moderate acute malnutrition.
- ◆ The Ministry of Agriculture and Livestock estimates that 85 858 ha of maize have been lost or damaged in 2015. Due to irregular rainfall, 60 percent of the maize crop was destroyed.
- ◆ The current impact of the drought on the economy has increased with respect to the 2014 drought to approximately USD 100 million in 2015. This includes investment losses, which are estimated at USD 29 million in seeds, fertilizers, pesticides and land preparation.
- ◆ Due to the delay of the first rains, the next harvest (*primera* harvest) is foreseen at the end of august 2016 and until that moment the food security situation is going to deteriorate.

El Salvador El Niño response

Government and other partners

- The Government has distributed maize and bean seeds to farmers affected by shortages and has given assistance such as pumps. It has also authorized imports of 14 000 tonnes of maize and 550 tonnes of beans at zero tariffs to mitigate price increases.
- The Government has also distributed drought- and rust-resistant coffee plants and trained producers on the use of irrigation techniques to cope with drought.

FAO

- FAO is supporting the Ministry of Agriculture and Livestock in its long-term strategy to adapt local agriculture to the effects of climate change. Assistance focuses on local capacity development, agro-climate risk management and support for research, innovation and transfer of new technology for climate change adaptation. Other assistance includes supporting sustainable management of local basins and land tenure, outreach and education and resource mobilization for adaptation, mitigation and resilience to climate change.
- FAO is implementing a response and resilience programme in the Dry Corridor to strengthen the disaster risk management capacities of the national and local authorities, establish information and early warning systems and through the watershed management plan — promote good practices and technologies, reducing the impact of extreme climate events with special emphasis on drought prevention and mitigation (short cycle and drought-resistant crops, water harvesting systems, community contingency funds, agroforestry, etc.). Since the beginning of El Niño (2014) FAO has supported 8 400 vulnerable households (42 000 people). Source of funding are: FAO (TCP-E), United Nations (CERF) and Belgium (SFERA).

Funding requirements

USD 6.6 million required to assist affected subsistence farmers. Priorities include the distribution of seeds and inputs, rehabilitating irrigation systems and water collection-storage systems.

Additional El Niño affected countries

WEST AFRICA			
Country (INFORM rank)	Potential disaster(s)	Outlook/current situation	Early action and response
Chad (18)	Drought	<p>During 2015, most parts of the country suffered from a late start to the rainy season and poor distribution of rains. As a result, the 2015 aggregate cereal production is estimated at some 2.45 million tonnes, 11 percent below the previous year's output and 9 percent below average. As of March 2016, over 3.6 million people were food insecure, 11 percent more than in 2013 or 2014, including around 1 million severely food insecure. By the lean season in June 2016, 4.3 million people will be food insecure, including 1.6 million severely food insecure. Given the situation, vulnerable households in the Sahel belt are currently facing a very difficult lean season due to a combination of reduced food and cereal stocks and higher prices on local markets. Coarse grain prices increased in March 2016 in most markets. However, in April 2016, prices stabilized or decreased in most markets.</p> <p>Pasture regeneration and water points' level in pastoral areas differs widely across the country. With the lack of fodder crops, the situation of the livestock in the Sahel belt remains fragile. Through the country, livestock prices were reported to be 22 percent below the five-year average at the end of 2015.</p>	<p>Government and other partners: Strengthened support to agricultural producers through the provision of various inputs, including fertilizers, seeds, bio pesticides and agricultural equipment.</p> <p>FAO: Supporting the Government on monitoring the food security situation through technical assistance to food security and early warning.</p>

EAST AND SOUTHERN AFRICA			
Country (INFORM rank)	Potential disaster(s)	Outlook/current situation	Early action and response
Republic of Djibouti (46)	Drought	As of February 2016, the arrival of over 600 households of displaced people to the Ali Sabieh and Dikhil regions has been registered, thus doubling the population and putting pressure on already limited resources. The number of pastoralists displaced by a chronic drought is continuing to rise by up to 11 500 in the three Regions of Ali-Sabieh, Dikhil and Djibouti-City. This migration is part of an already difficult context of malnutrition and food insecurity in the Republic of Djibouti. The Poor food consumption score in rural areas varies between 15 percent and 51 percent, synonymous with a pronounced situation of insecurity. Malnutrition rates show an increase in moderate acute malnutrition and severe acute malnutrition, the most affected areas being Ali Sabieh in the south and Obock in the north. The extreme poverty rate in the country is 72.5 percent, highlighting a precarious socio-economic situation. Moreover, the persistent drought of the last decade contributed to the continued deterioration of livelihoods (lack of pasture, loss of livestock) and the acceleration of the rural exodus. Cattle possession statistics (or rather cattle loss) highlight a marked deterioration compared to the average of the last three years in rural areas, where livestock is the main source of livelihood, notably in Ali Sabieh region.	<p>Government and other partners: On 4 April 2016, the Government requested emergency assistance from FAO, as well as other UN agencies, in dealing with the pressing needs of the influx of migrants as well as the host communities who are already in a very precarious situation in the southern regions of the Republic of Djibouti. Various meetings on the response to the situation took place between concerned government agencies and development partners such as UN agencies and international NGOs.</p> <p>FAO: Conducted assessment missions in the regions of concern. Following a request of assistance from the Government, FAO is in the approval process to allocate FAO's own resources (approximately USD 450 000) under the FAO Technical Cooperation Programme to implement emergency protection livestock and agriculture support. In addition, under the Rapid Response Fund, FAO with other UN agencies has received USD 550 000 to provide livestock support, along with giving host communities access to purchasing power to compensate land preparation work for agricultural production and provision of agricultural tools.</p>
Eritrea (49)	Drought	There is a severe drought in pastoral and coastal pastoral areas. Rainfall in June and July 2015 was 30-35 percent below-average. Some areas, including Foro, Gel'alo and Massawa, had almost no rain in the first two months of the wet season. The average to above-average rainfall received in August 2015 did not offset this and grazing was severely deteriorated. One million people in Eritrea are estimated to be food insecure.	

EAST AND SOUTHERN AFRICA			
Country (INFORM rank)	Potential disaster(s)	Outlook/current situation	Early action and response
Zambia (70)	Drought	<p>Zambia entered the El-Niño period after consecutive years of good maize harvests and surpluses. In the 2013/2014 season, the maize harvest was 3 350 671 tonnes. In the 2014/2015 season the harvest was 2.6 million tones. Despite a poor start to the 2015/16 cropping season, improved rains between January and April benefited crop development, and national maize production is estimated at about 2.9 million tonnes, about 10 percent higher than 2014/2015 output. Currently, 800 000 people cannot meet their basic food needs, with 49 percent of children stunted. Maize grain prices fell in April 2016, but still remain high due to overall tighter supplies, high export demand and depreciation of the local currency.</p> <p>Areas of Southern and Lusaka Provinces and the southern districts of Western Province, which represent some of the main cropping areas of Zambia, have faced prolonged dry spells, negatively impacting agricultural production. Dry conditions have stressed crops, resulting in wilting (estimated at 60–70 percent) and stunted growth, especially impacting maize. Poor rainfall has had an impact on pasture conditions and water availability, with the situation expected to peak in June/July. It is expected that large numbers of livestock will move to the wetlands along the Kafue flats and Zambezi flood plains in search of water and pasture, resulting in increased incidences of diseases and mortality. Some 975 738 people are projected to be in need of emergency assistance at the peak of the lean season in late 2016/early 2017.</p>	<p>Government and other partners: The Government input support programmes are targeting one million farmers to improve input access for 2016/2017 season. At the same time, the Disaster Management and Mitigation Unit (DMMU) is updating the development of the Zambia Rural Livelihoods Baselines, which have become unreliable as the changes in weather patterns (including floods and droughts) have resulted in changed livelihoods. The DMMU prepared the 2015/2016 National Contingency Plan.</p> <p>FAO: Together with WFP and government extension staff, FAO undertook a rapid assessment to evaluate the impact of El Niño and identify some immediate response actions, operational requirements and capacity to implement an emergency agriculture response (such as seeds and animal health services) within the 2015/2016 agricultural season early in 2016.</p> <p>USD 3.3 million required to assist 173 000 households. Priorities include protecting and enhancing livestock production, safeguarding agriculture-based livelihoods; rehabilitating water points through cash-for-work activities; and information, coordination and analysis.</p>

EAST AND SOUTHERN AFRICA			
Country (INFORM rank)	Potential disaster(s)	Outlook/current situation	Early action and response
Namibia (75)	Drought	<p>Over 1.5 million people (60 percent of the population) live in rural areas, relying on subsistence farming and pastoralism, and have been severely affected by drought, which has been described as the worst in 80 years. Northwestern Namibia has suffered the worst impact of drought and there are fears these areas may become inhabitable and barren by 2020 if the drought continues. Planting of the 2016 crops was generally delayed due to late start of the seasonal rains. Precipitation has been below average and forecasts indicate dry conditions will continue through March 2016. Crop production prospects are therefore unfavourable, particularly in areas that are entirely rainfed. Higher temperatures and drier conditions have further resulted in poor pasture and water source availability, with many farmers reporting livestock losses as a result. The country is still reeling from the impact of the 2015 cereal harvest, which was 46 percent below the five-year average. More than 720 000 people, of the country's population of 2 million, are projected to be food insecure by the end of 2016/early 2017. This number could rise again if the situation continues or becomes worse, which would further result in increased livestock losses, reduced crop production and an escalation of a water crisis</p>	<p>Government and other partners: The Government continued to provide subsidized seeds and fertilizers in the 2015/16 season, sufficient to cover an area of 3 ha per farmer. In addition, subsidies were provided for ploughing and weeding operations. Drought relief has been provided by the Government for the most vulnerable in all 14 regions of the country. This includes an additional NAD 530 million (USD 37 million) for drought relief for the period November 2015 to March 2016.</p> <p>FAO: The Ministry of Agriculture, with support from partners including FAO, has been involved in the rehabilitation of boreholes, training farmers on conservation agriculture and rangeland management.</p> <p>USD 2.5 million required to assist 49 220 households. Priorities include vegetable seed and fertilizer distribution; community drought-tolerant seed production; small-scale irrigation initiatives; supplementary feed for livestock; fodder production; restocking; animal health interventions; and rehabilitating water points through cash-for-work initiatives.</p>

EAST AND SOUTHERN AFRICA			
Country (INFORM rank)	Potential disaster(s)	Outlook/current situation	Early action and response
South Africa (88)	Drought	South Africa is currently facing the worst drought in nearly 25 years. Drought disasters have been declared in eight of the country's nine provinces. Delayed rains and subsequent late planting have severely limited crop development, thereby reducing production prospects in 2016. Combined with the low output of 2015 and limited agricultural inputs available, maize prices have risen to record high levels (nearly double the average price). An estimated 14.3 million people are vulnerable to food insecurity during the lean season. In response to the crisis, farmers are selling their productive assets to avoid liquidation, compromising food production as farmers look for alternative livelihoods to survive. Reduced maize harvests in 2016 will have negative implications for other import-dependant countries in the region. The Government has recorded 226 583 smallholder farming households affected by drought so far. In addition, 20 999 commercial farming units have been recorded as affected.	<p>Government and other partners: The Government has set aside ZAR 236 million (approximately USD 14.5 million) through reprioritization to alleviate the impacts of the drought.</p> <p>USD 10 million required to assist 622 000 households. Priorities include Vegetable seed provision to urban/peri-urban households, community drought-tolerant seed production, post-harvest management & storage, micro-gardens, nutrition education. Livestock restocking, animal health.</p>
Botswana (100)	Drought	Out of the last five production years, Botswana experienced drought three times. Good rains received in central and western Botswana have helped to slightly reduce, but not eliminate rainfall deficits in the area. However, the majority of the country continues to be severely affected. Due to the dry conditions, crops in many planted areas are in poor condition, while in others, the crops have succumbed to permanent wilting. An estimated 49 408 people (7 058 households) require further assistance to existing safety nets (e.g. school feeding, cash and food transfers, Government grants). Of these 41 404 (5 915 households) require survival and livelihoods assistance and 8 004 (1 143 households) require livelihood assistance to protect existing assets. Water levels have declined in many catchments due to erratic rains. Staple food prices are rising with the increase in demand for purchases owing to poor production.	<p>Government and other partners: In response to the drought impacts on livestock, the Ministry of Agriculture has increased subsidies on certain livestock feeds by 50 percent.</p>

ASIA AND THE PACIFIC			
Country (INFORM rank)	Potential disaster(s)	Outlook/current situation	Early action and response
Myanmar (10)	Drought in: Chin, Rakhine, Magway, Bago, Yangon, Ayeyarwady	<p>Drier than average conditions have continued since November 2015 and associated risks such as fire hazards, drought, disease and food insecurity persisted until mid-2016.</p> <p>Currently water shortages in some parts of the country were reported. Reports from Sagaing and Magway regions, as cited by OCHA, indicated that water trucking needs are increasing. In Kachin, water trucking is on-going for IDP camps and communities in Hpikant. Based on Department of Rural Development (DRD) estimates, 1 700 villages are expected to still face water shortages across the country.</p> <p>According to the Relief and Resettlement Department (RRD), as cited by OCHA, heavy rains triggered flash floods in Kawlin, Wuntho and Pinlebu townships in Sagaing Region on 9 June, damaging farmlands and bridges. More than 25 000 people were affected in Kawlin. The Sagaing Regional Government is responding to urgent needs while RRD is providing cash assistance. Localized floods were also reported in other parts of the country on 10 and 11 June (damage assessment on-going).</p>	<p>Government and other partners: Over 200 humanitarian partners are currently providing assistance to over 1 million people in Myanmar. This includes 460 000 people who continue to require food security support following the devastating floods in July/August 2015.</p> <p>In Myanmar, the National Disaster Management Committee is an apex inter-ministerial body leading early warning, preparedness and response.</p> <p>The Government has been providing assistance in terms of water distribution, pump installation and awareness-raising activities on reserve seed storage, efficient water usage, disease prevention in crops and livestock, water pond management and other areas.</p> <p>FAO: A key component of FAO's recently approved emergency project in Chin and Rakhine states will be disaster risk reduction planning within the agriculture sector at the community and state levels, and establishing improved coordination capacity at state and national level in the food security sector. At the community and household levels, FAO will assist in the identification of good practice options and technologies (including livelihood assets) that could reduce damages/losses and enhance early recovery.</p> <p>In addition, two projects "Emergency assistance for recovery of livelihoods of flood-affected people in Chin state" funded by the Government of Belgium and "Emergency assistance to support farmers affected by floods in Sagaing Region" funded by FAO are being implemented in the areas affected by 2015 floods.</p>

ASIA AND THE PACIFIC			
Country (INFORM rank)	Potential disaster(s)	Outlook/current situation	Early action and response
Philippines (34)	Drought Cyclone	<p>According to the Philippines national weather agency, DOST-PAGASA, El Niño has decayed and neutral conditions are now present. Majority of international climate models predict a possibility of La Niña to develop during the second half of 2016, which would correspond with harvesting period of the 2016 main season crops and planting period of the 2016 secondary season crop. If La Niña even transpires, which is historically associated with heavier rainfall, this could benefit planting operations and crop development of the secondary season, although excessive rains could also raise the potential for flooding negatively impacting particularly on their late development stages or near harvest period of the 2016 main season crops. Twenty-nine percent of the country experienced drought in March, while other areas (mostly in Mindanao), experienced drought in April and May. Since 2015, the Department of Agriculture estimated that 413 456 farmers have been directly affected by El Niño-associated drought/dry spells. Of this, 53 percent are rice farmers, 38 percent are corn farmers, and 9 percent are high-value crop farmers. In terms of land area, a total of 556 721 ha were affected. The majority affected are corn areas (46 percent), followed by rice (41 percent).</p>	<p>Government and other partners: The Government has prepared the roadmap to address the impact of El Niño, which was approved by the President in December 2015. It aims to address lower food production, higher prices and lower farm income. The Department of Agriculture (DA) has implemented activities to help farmers cope, such as cloud seeding, seed distribution, promoting crop diversification/rotation and water saving, and enhanced monitoring and validation of impacts.</p> <p>FAO: Assisted the DA in preparing a national disaster risk reduction strategy for agriculture and has proactively supported regional field offices in mitigation and rehabilitation planning. Additional support to the Government included a rapid damage and needs assessment and emergency interventions were provided to typhoon (Koppu and Melor) in Region III and drought-affected farmers, including those in the Autonomous Region in Muslim Mindanao and Region XII. FAO is currently supporting the DA in assessing drought impacts in using drones capable of producing high-resolution datasets for both visual and computer-aided analyses and in developing a country-level Agricultural Stress Index System</p> <p>USD 4.6 million is required to implement field-based activities, restoring the livelihoods of affected farming and fishing communities, and strengthening the capacities of the DA regional field offices and local government units to prepare people for adaptation and mitigation strategic measures. These funds would also set up early warning systems for drought and disseminate information such as farm weather bulletins.</p>

ASIA AND THE PACIFIC			
Country (INFORM rank)	Potential disaster(s)	Outlook/current situation	Early action and response
Indonesia (55)	Drought Floods	<p>Parts of Indonesia have been wetter than normal since May and unusually high rainfall is predicted to persist throughout the dry season. Rainfall levels in Java, the eastern areas of Sulawesi, central Papua and southern Kalimantan and Sumatra may increase significantly by up to 200 percent. Southern parts of Indonesia have also been affected by abnormally high tides and large waves, reaching up to 5 metres.</p> <p>Tropical weather and climate patterns such Madden-Julian Oscillation, monsoon and negative Indian Ocean Dipole are contributing to the weather anomalies currently affecting Indonesia. Moreover, a La Niña even will likely start in August or September 2016 and will continue into the last quarter of 2016, causing wetter than normal weather conditions.</p> <p>The abnormally high rainfall and tides increased the number of flood events. This year, the number of flood events (442) as of 26 July has almost reached the annual average of floods since 2009</p> <p>During the most recent La Niña in 2010-2011, the weather extremes related to the phenomenon led to an increased occurrence of flood events. In late 2010, when La Niña was at its strongest, the number of floods increased 1.7 times compared to the average number of floods since 2009. The number of dead and missing was 3 times higher (607), and the number of injured people rose to 2 588, while the average is 471.</p> <p>The impact of weather changes associated with La Niña on food security is difficult to predict. Historically, increased rainfall negatively impacted agricultural production in some areas and positively in others. However, the weather changes tend to weigh heavily on food access, stressing food and livelihoods security situation of the most vulnerable groups.</p>	<p>Government and other partners: A UNCT focus group for El Niño, co-led by FAO and WFP, has been monitoring the weather anomalies and analyzing potential impacts.</p> <p>With the increasing probability of La Niña conditions developing in the second half of 2016, FAO and WFP with the key government agencies held a follow up meeting to the scenarios developed for likely impacts of El Niño and possible La Niña, with a specific focus on the La Niña scenario. Early warning messaging to the communities was identified as the key immediate action and the government agencies are taking action to implement it.</p> <p>The National Disaster Management Agency provided more than IDR 1.13 billion to respond to floods and landslides disasters in June 2016. An emergency was declared in several districts in West Sumatra, Central Java and North Sulawesi. In the declared emergency areas, the Ministry of Social Affairs provided meals for the evacuees three times a day, until the emergency response phase is deactivated.</p> <p>FAO: Food security analysts, deployed in November 2015, have been supporting interagency collaboration and the development and implementation of an El Niño Early Action Plan. This includes food security monitoring and analysis, scaling-up of drought-resilient conservation agriculture practices, fire prevention and community-based forest and peatland management. Collaborating with the Ministry of Agriculture and WFP in the production of a quarterly Food Security Monitoring Bulletin. FAO engages with the National Meteorology Agency (BMKG) in assessing the likelihood of La Niña and Indian Ocean Dipole and its likely impacts on Indonesia. FAO is also cooperating with key Government partners in identifying early actions for the possible La Niña event.</p> <p>USD 2.7 million required to upscale drought-resilient agricultural practices in the most drought-affected areas — Nusa Tenggara Timur and Nusa Tenggara Barat provinces.</p>

ASIA AND THE PACIFIC			
Country (INFORM rank)	Potential disaster(s)	Outlook/current situation	Early action and response
Laos (64)	Drought Cold Wave	Poor rains during the cropping season lowered the 2015 aggregate rice production by 4 percent year-on-year. Extreme low temperatures in January 2016, resulted in livestock deaths amounting to around USD 5.5 million. Preliminary data has also indicated over 4 000 livestock have been lost and thousands of hectares of crops, herbal plants and fruit trees have been affected.	
Cambodia (71)	Drought	<p>Eighteen provinces, out of 25, were recorded under drought conditions. Poor rains, coupled with low water availabilities in the Mekong river, constrained the 2015 rice and maize outputs. FAO, UNICEF and WFP have conducted an El Niño Assessment survey, targeting 2,400 households in the four agro-ecological zones of Cambodia, in 24 provinces. Undisclosed figures show that 189 000 households are severely affected, including 76 000 internally-displaced poor families. At least 70 percent of those families cultivating wet season rice declared more than 25 percent loss of paddy production during the 2015 wet season and 100 percent of those families cultivating dry season rice have lost more than 25 percent of paddy production. Latest official estimates put the 2015 aggregate rice production at 9.3 million tonnes (unchanged from 2014). Improved rainfall during the main cropping season, following some delays in the onset of the rains boosted yields and resulted in an increased output, compensating for the small decrease in the 2016 secondary crop.</p>	<p>Government and other partners: In May 2016, distribution of water containers, pumps to 100 districts nationwide, by the Government through Cambodian Red Cross NGOs distributed water tanks, water filter system, water, hand pumps, ring wells; rehabilitated community ponds, canals. UNICEF has provided water to health care centers and WFP distributed hot meals to school children (3000 000 pupils and 200 000 family members) through their school feeding programme.</p> <p>FAO: FAO, through the Life and Nature project, provided water tanks and drip irrigation systems to needy households in the project areas. FAO also provided advices to communities affected by the drought on managing their community fish refuges together with local authorities in use of water for irrigation or other household purpose. FAO, through the School Garden project, will provide rainwater harvesting systems and inputs for gardens to 30 targeted schools affected by the drought. The DRR Good Practice Options are also been disseminated to the different targeted provinces.</p>

ASIA AND THE PACIFIC			
Country (INFORM rank)	Potential disaster(s)	Outlook/current situation	Early action and response
Democratic People's Republic of Korea (72)	Drought and Floods	<p>Drought: In 2015, the Government State Committee for Emergency and Disaster Management (SCDEM) reported that 9 percent of agricultural land became unsuitable for cultivation due to a prolonged drought in 2014/15. In 2015, total production in terms of cereal equivalent was 5.06 million tonnes which fell below the production level of 2014 (5.71 million tonnes) by 11.34 percent. The Ministry of Agriculture has attributed this decrease in production to the prolonged drought since July 2014. According to meteorological data provided by the National Coordination Committee (NCC), annual precipitation in 2015 was less than the historical average in nine out of 11 provinces of DPRK. Among the nine provinces, Nampo received the lowest annual rainfall (73.4 percent of historical average) and North Hwanghae the highest (98.3 percent). In most provinces, the distribution of rainfall in the 2015 main cropping season from May to September was much less than the historical average which exposed growing crops to soil moisture stress. Furthermore, water levels in the main reservoirs are extremely low. As of January 10, 2016, water resources available nationally for irrigation were estimated at 2.330 billion m³ against the minimum need of 3.574 billion m³ that constituted 65 percent deficit. The extent of deficit of irrigation water varied in a broad range among the provinces with the highest 83 percent in South Hamgyong and lowest 42 percent in Pyongyang.</p> <p>Floods: According to the State Committee on Emergency and Disaster Management (SCEDM), the responsible government organization in charge of disaster management in DPR Korea, and the DPR Korea Red Cross Society, the flash floods in August 2015 affected 5 399 families (approximately 18,896 family members) and caused 59 dead or missing in Rason area.</p>	<p>Government and other partners: The Government mitigated the impacts of drought to save the standing crops through different means of irrigation, which included providing concrete rings by the Government to dig temporary wells for irrigation purposes.</p> <p>FAO: Provide technical support to the Government and Humanitarian Country Team (HCT) members, along with co-chairing the Agriculture and Food Security Sector Working Group — regularly monitoring, circulating and advising the Government and HCT members on weather information and seasonal crop indicators generated from GIEWS. FAO is distributing additional cover crops seeds, soybean seeds, portable water pumps, two-wheel tractors with water tank, and chemical fertilizers in drought-affected areas.</p> <p>FAO's funding requirements total USD 9.26 million, out of which USD 1.2 million has been funded by CERF and internal resources.</p>

LATIN AMERICAN AND THE CARIBBEAN			
Country (INFORM rank)	Potential disaster(s)	Outlook/current situation	Early action and response
Colombia (25)	Drought	<p>El Niño climatic conditions are aggravating the chronic drought situation, which is affecting different areas of the country.</p> <p>Over 40 municipalities are facing water shortages due to high temperatures and limited rainfalls, and the northeast department of Sucre has declared public calamity. Thirteen departments continue to be on red alert for forest fires due to high temperatures and dry conditions. The situation is more severe for the semi-nomadic herders living in the northern parts of the country, in departments such as La Guajira, which have registered a rain deficit ranging from 40 to 78 percent of the average. Vulnerable herders have lost between 50 to 90 percent of their livestock, and the closure of the Venezuelan border is aggravating their situation.</p>	<p>FAO: Focusing its intervention in the most drought-affected departments, such as Guajira. Activities include protecting livestock assets, establishing seed banks, and recovering farming and livestock assets of indigenous communities.</p>
Peru (48)	Flood Cold Wave Fisheries	<p>Heavy rains linked to El Niño swamped Peru in February resulting in flooding affecting homes and croplands. The National Institute of Civil Defense reports that freezing temperatures and snowfall left more than 1 200 people homeless in nine departments, as well as 487 600 people affected in Puno and Pasco. It is estimated that 221 120 cattle are lost and 392 920 affected. The cold wave damaged 128 970 ha of crops.</p>	<p>Government and other partners: The Peruvian Red Cross is assisting 2 000 families, as part of its German-supported 'Forecast-based Financing' programme, owing to an El Niño-induced heavy rain and flash floods that swept across more than half the country's administrative regions. The Government has been implementing an El Niño National Action Plan as well as a National Disaster Risk Management and Climate Change Adaptation Plan for Agriculture (PLANGRACC-A)</p> <p>FAO: FAO supported the Government in designing the PLANGRACC-A and is now providing technical assistance to implement a drought observatory for early warning and action.</p>
Ecuador (67)	Flood Fisheries	<p>Since the beginning of 2016 several floods, landslides and tide surges have triggered national-scale events that have directly impacted the population and the infrastructure. The Ministry of Agriculture, Livestock, Aquaculture and Fishing reported losses of USD 2.76 million over this period.</p>	

LATIN AMERICAN AND THE CARIBBEAN			
Country (INFORM rank)	Potential disaster(s)	Outlook/current situation	Early action and response
Bolivia (89)	Drought in highlands Floods in centre and east	<p>Since January Bolivia has been facing a combination of flood and drought risk due to El Niño.</p> <p>In January the locality of Guanay was affected by floods but in other parts of the country rains, such as the high plateau and the Chaco region amongst others, have been below average. A cold wave and hail has affected about 60 000 families in different parts of the country including the Departments of La Paz, Oruro, Chuquisaca, Potosi and Cochabamba heights. Some 854 000 animals, especially llamas and sheep, have been lost.</p> <p>Since January Bolivia is currently facing the worst drought in the last 25 years, impacting 141 of the 339 municipalities in the countries. At national level, about 132 000 households are suffering from the impacts of lack of rain, notably in the region of El Chaco and in the departments of Cochabamba, La Paz y Potosí. Production losses have been estimated to USD 180 million in the Oriente department, and to USD 120 million in the livestock sector of the Santa Cruz department.</p>	<p>Government and other partners: The Government plans to import the required staples to ensure food security, and it plans to mobilize drilling teams and equipment in drought-affected areas to ensure drinking water for people and animals, with river and drain dredging in areas affected by flooding. The Government has drafted a National Emergency Plan for the El Niño Phenomenon 2015-2016 with a budget of almost USD 21.5 million, 54.5 per cent of which is allotted to preparedness actions, 11.5 per cent to response and 34 per cent for reconstruction. The Government has so far supported 11 152 families —primarily with food items.</p> <p>FAO: FAO continues its work to build resilience to climate and disaster risk through several initiatives. For example, it is contributing to the development of a national early warning system for vulnerable rural families in the High Andes zone and in Beni. It is also building the capacities of indigenous communities and organizations to prepare and respond to threats and disasters in Mamore and Beni watersheds and plans to scale up its work to meet the needs of vulnerable people facing El Niño through other upcoming projects. FAO is participating in the coordination meetings of the Humanitarian Country Team. Currently the 1st Sit Rep is being prepared.</p>
Dominican Republic (93)	Drought	Some 1.6 million people have been affected by drought in the Dominican Republic. In parts of the country, rain deficits have led to a 60 percent decrease in crop production as well as livestock deaths.	<p>FAO: In October to December 2015, FAO conducted a mapping of the effects of the drought on the agricultural and livestock sectors and the livelihoods of producer's families in Monte Cristi.</p>
Guyana (112)	Drought	Below-average rainfall anticipated to continue.	

LATIN AMERICAN AND THE CARIBBEAN			
Country (INFORM rank)	Potential disaster(s)	Outlook/current situation	Early action and response
Paraguay (142)	Floods	<p>Intense rainfall during November and December 2015 led to flooding of Paraguay, Parana and other minor rivers during the first trimester of 2016.</p> <p>Current early rainfall forecast under La Niña condition is expected to decrease during spring by 20 percent (according government sources). Monitoring will continue during the following months to estimate risks considering that during the first semester of the year flooding has affected several departments, of which four (Concepcion, San Pedro, President Hayes, Ñeembucú) have registered livelihoods and production losses across farming communities (approximately 7 300 farmers affected, according to Government sources).</p>	<p>Government and other partners: During August and September 2016 government will be assisting around 13 000 families that are expected to return to their houses.</p> <p>FAO: FAO continues providing technical and methodological assistance to the Government to develop a national Disaster Risk Management Plan for the agriculture sector and to establish an agroclimatic risk monitoring system.</p> <p>Also, during July 2016 an Early Warning Early Action team was deployed to assess current country needs in the agriculture sector at national and local level. Results will be presented to government official including findings and recommendations to implement the EW-EA system.</p>
Eastern Caribbean	Drought	<p>The El Niño event is expected to continue to limit rainfall in the eastern Caribbean until March 2016. Drought warnings have been issued for Antigua and Barbuda, Barbados, Dominica, northern Guyana, St. Kitts and Nevis, Saint Lucia, St Vincent and the Grenadines, Trinidad and Tobago and northern Suriname. Forecasts are predicting a particularly severe dry season during January to March 2016. In Antigua and Barbuda, the main reservoir supply water for agriculture (Potworks Dam) is dry. Currently, 92 percent of water used is desalinated because of the low surface supply. Severe drought has been experienced for two years. In Barbados, the parishes of St. George and St. Phillip have been without water. Restrictions were placed on the use of irrigation systems and washing of cars. Farmers were urged to conserve water. In August 2015, St. Kitts and Nevis reported that the country was in “a full blown crisis situation” with respect to water supply. Rationing is being implemented as all aquifers on the island are being pumped at maximum capacity. Severe drought conditions and record high temperatures have affected farmers in Jamaica and water is being rationed. In St Vincent and the Grenadines, extended drought conditions was experienced by farmers in 2014/15. Because of the lack of rainfall, water conservation measures are enforced. In Dominica, damage from Tropical Storm Erika in August 2015, cost USD 3.6 million in crops and over USD 1.5 million in farm equipment, livestock and fishing. Farming practices that require moisture such as transplanting of vegetables and weeding were delayed due to limited rainfall during the first half of December.</p>	<p>Government and other partners: Contingency plans are being implemented, which includes water delivery and water storage containers, as well as public awareness in Barbados, Grenada, Guyana, Montserrat, St. Kitts and Nevis.</p> <p>FAO: In Dominica, FAO committed USD 300 000 from the Technical Cooperation Programme emergency funds for immediate assistance to restore agricultural productivity. Fields will be restored and tools distributed.</p>

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