



Food and Agriculture Organization
of the United Nations

2015–2016 El Niño

Early action and response for
agriculture, food security and nutrition

Report

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2015–2016 El Niño

Early action and response for agriculture, food security and nutrition

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

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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 10.2 million people are still in need of food and non-food assistance in 2016. Malnutrition rates across the country remain extremely high, with over one-third of Ethiopia's *woredas* classified as facing a food security and nutrition crisis.
- 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 that 39.7 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.

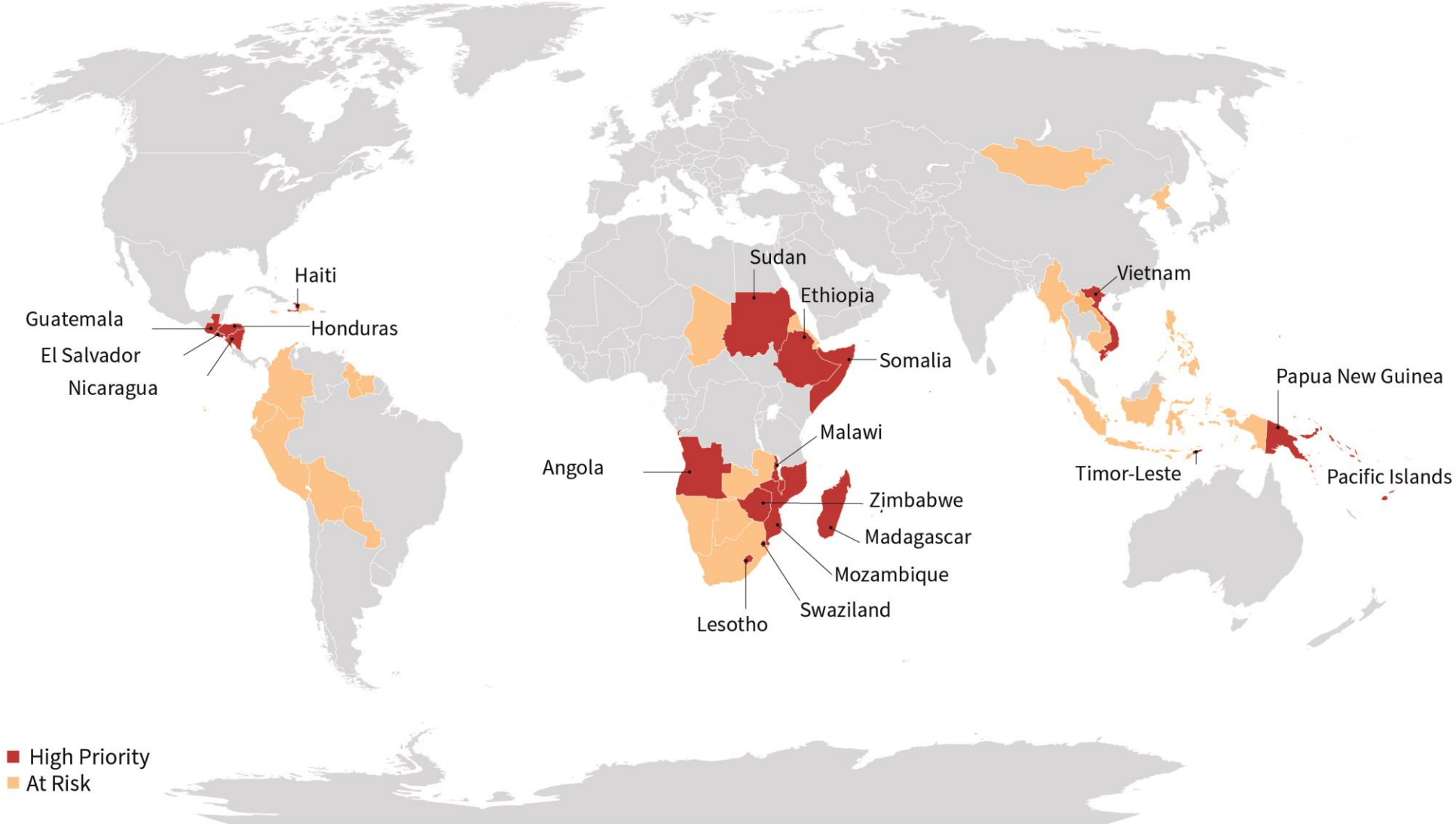
Latin America and the Caribbean

- 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 – currently experiencing the worst drought in decades, which is affecting 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. Rainfall levels have remained abnormal and below-average due to the dissipating El Niño. It is likely that the region will continue experiencing extremely warm and dry conditions through to June 2016 in most countries, which may affect planting of the main 2016 “*de primera*” agricultural season.

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.

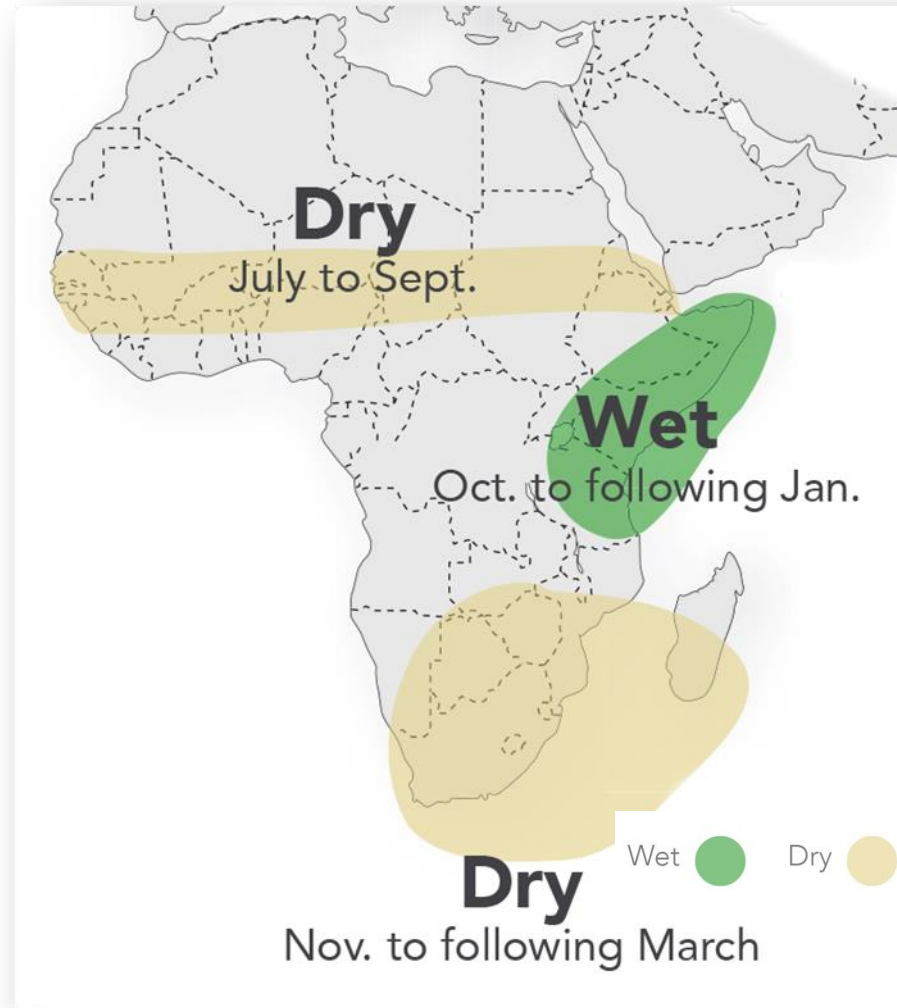
2015–2016 El Niño FAO priority countries



NORTH, EAST AND SOUTHERN AFRICA

Historical El Niño regional trends for Africa

The Institute for Climate and Society at 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 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

- ◆ Nearly 4.7 million people, 38 percent of Somalis, are food insecure (IPC Phases 2, 3 and 4) and will need humanitarian assistance through June 2016. Of this figure, 1.7 million people are in Puntland and Somaliland.
- ◆ During the last months of 2015 and early 2016, drought emergencies were declared in Puntland and Somaliland, where most communities experienced below-average rains for up to four seasons, spanning two years. This follows higher-level rains in the south and central regions in 2015.
- ◆ 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 has 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 the north providing some immediate relief, however cash-strapped farmers struggled to purchase seeds and prepare the land.
- ◆ Cumulative amounts of rain were not sufficient to fully restore pasture and water conditions. Significant soil moisture deficits persist especially in Puntland, where large numbers of livestock migration is still taking place toward areas with better pasture availability in Sanaag.
- ◆ South 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 2016, Somali families will likely experience the double-shock of El Niño, followed by La Niña. El Niño brought above-average rains and flooding to parts of southern and central Somalia, and severe drought in the north. There is a high probability that La Niña will follow, and likely cause drought conditions across Somalia. FAO actioned drought and flood-related early warning, preparedness and response with robust fundraising. Results include:

Drought in the North

- Six million doses of CCPV vaccines delivered to Puntland and Somaliland, mass vaccination campaign underway.
- 6 000 households (36 000 people) reached with cash transfers amounting to USD 1 440 000 in Somaliland.
- 18 water catchments rehabilitated in Somaliland increasing water storage capacity sufficient to water 68 000 animals during the dry period. An additional 29 soil bunds were rehabilitated increasing water harvesting and helping to control soil erosion.
- 23 700 tractor hours were provided to drought-affected families in Somaliland, enabling farmland preparation in the 2016 cropping season.

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 over 20 breakages.
- 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 flood-affected families received agricultural input packages (i.e. seeds, fertilizer and training) to produce cereals and pulses sufficient to feed 141 000 individuals for one month, worth USD 600 000.

Funding requirements

USD 17 million required to meet the immediate needs of more than 1 million 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 9.5 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 5-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 the joint analysis made by FAO and the Ministry of Livestock, about 8.4 million livestock require immediate support with inputs and services. This includes fodder and supplementary feeding, water, and veterinary services to mitigate the impact of El Niño.

Sudan El Niño response

Government and other partners

- The Government of Sudan is closely monitoring the situation and has completed post-harvest assessments for each state, however the analysis is still ongoing and reports not yet released. 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, 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.

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 52 localities across 9 states to assess the full scale of impacts by affected communities. Preliminary findings indicate that there are approximately 3.2 million people impacted by El Niño.
- 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 has also received funding to support a recent influx of IDPs in North Darfur who have arrived at IDP camps with livestock in areas already hard-hit by El Niño and without sufficient pasture and water resources.

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. Priorities for action include animal feed distribution, vaccination and treatment campaigns, water trucking and rehabilitation of water points for livestock in affected areas; emergency seed distribution to affected areas for the main agricultural season; and provide livelihood training and start-up kits, including animal feed.



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.
- ◆ Some 10.2 million people are expected to require humanitarian food and non-food assistance throughout 2016.
- ◆ A revision of the hotspot *woreda* classification was issued by the Government in April, where the number of Priority 1 *woredas* increased from 186 (December) to 224, indicating a worsening of the 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.
- ◆ Since early May, heavy *belg* rains have caused floods and landslides in six regional states, displacing over 180 000 people, submerging 55 000 ha of farmland, killing thousands of livestock, damaging key infrastructure and seriously hampering the delivery of humanitarian assistance as some areas became inaccessible.
- ◆ Some 654 000 households require livestock support, with an estimated funding need of USD 30 million to address livestock sector requirements (valid until the results of the Government-led *belg* season assessment are released in July).

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.
- By mid-June, 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 livestock response, with activities including vaccination and treatment, fodder and supplementary feed, destocking and water access support.

FAO

- Providing 145 000 households in underserved *woredas* with crop seed in the most nutritionally vulnerable districts.
- Distributing survival and supplementary livestock feed to 9 600 households is ongoing.
- 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, 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 50 million required to fully implement FAO's El Niño Response Plan to assist 1.8 million pastoralists, agropastoralists and smallholder farmers. Current funding priorities include animal health campaigns to protect core breeding animals and cash-for-work initiatives to improve infrastructure.



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.
- ◆ As a result, maize production is estimated to have fallen by percent in 2016 compared to the previous year.
- ◆ The Government estimates that 459 000 farmers and about 864 000 ha of agricultural land were affected by drought. 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 (more than 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 100 000 producers in the Maputo, Gaza and Tete Provinces with crop and livestock support.

Funding requirements

USD 5 million required to assist 647 800 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, drought and a locust plague.
- ◆ 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 consumption has been scarce.
- ◆ The results of a rapid assessment for crop production – carried out by FAO in February 2016 – suggest that less than 20 percent of the planted crops will be harvested.
- ◆ The delayed harvest season starting in May will make the lean season even more difficult and longer for populations in the south of the country.

Madagascar El Niño response

Government and other partners

- On 22 March, the Government declared a state of emergency for southern Madagascar due to drought.
- Madagascar has reviewed and updated the Food Security and Nutrition contingency plan, including a review of cluster members' capacity for response (logistics, prepositioning of food stocks, seeds and other inputs).
- A multi-sectoral national response plan has been formulated under the leadership of the Bureau of Risk and Disaster Management to provide assistance to 665 000 vulnerable people severely affected by drought and the effects of El Niño in southern Madagascar, of which 530 000 (or 102 000 households) practice small-scale farming. The overall cost of the humanitarian needs has been estimated at USD 69 million of which USD 46 million are to cover food security needs.
- FAO and WFP, in close collaboration with the Government, are planning to undertake a Crop and Food Security Assessment Mission in July and August 2016.

FAO

- Co-leading the Food Security and Livelihoods Cluster activities.
- Conducted a rapid assessment in seven of the most affected districts in the south of the country.
- Implementing an emergency response to assist 16 200 vulnerable farming households. Some 82 600 vulnerable households still need emergency assistance.

Funding requirements

USD 12.4 million is required to assist 102 000 households, of which a gap of USD 9.7 million remains to safeguard agriculture-based livelihoods, protect and enhance livestock production, increase water access through improved infrastructure and information, coordination and analysis. CERF funding is expected to assist 16 000 farming households identified as needing agricultural emergency assistance.



Malawi

INFORM Rank: 65



Drought in the south



Floods in the north

Situation and outlook

- ◆ Maize production is estimated to decrease by 12 percent in 2016, from the already sharply reduced 2015 harvest due to the severe dry periods, mostly affecting central and southern districts.
- ◆ According to official Government reports, drought conditions are severely affected nearly 270 000 ha (losses above 80 percent) and an additional 385 000 ha (reduced yields between 30–50 percent) have suffered partial damage. In the southern region, nearly 55 percent of the available area under rainfed agriculture has been reported as affected. In the Central and Northern regions, the percentage of damage is 22 and 27 percent respectively. The effect is a drastic reduction in food production, especially for small-scale and vulnerable farmers.
- ◆ The scarcity of water in some areas will compromise the off-season farming activities in the southern districts.
- ◆ According to the Malawian Vulnerability Assessment Committee, about 4.1 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. The number of children diagnosed with severe acute malnutrition has doubled during the last three months, according to UNICEF.
- ◆ 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.

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.
- 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 is completing the preparation of a Food Insecurity National Response Plan for the next 18 months. The plan will appeal for near USD 400 million to cover urgent needs for food, agriculture and other sectors during the coming months.
- CERF has approved USD 16 million in response to the early 2015 floods and current food insecurity needs caused by the recent dry spells.
- The One Fund Humanitarian Window in Malawi has mobilized support with DFID of USD 5.4 million in January 2016 to strengthen the contingency measures to tackle the negative effects of El Niño.

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 will be USD 30.8 million. Currently, only 5 percent of the plan has been supported.
- 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 drastically.
- Funding from DFID has been received to support affected farmers with small livestock and vaccination in six districts widely affected by dry spells. Additional funding has been confirmed by DFID to support irrigation and livestock activities during the coming months.
- 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 255 000 households. Priorities include safeguarding agriculture-based livelihoods, protecting and enhancing livestock production, increasing water access through improved infrastructure, 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 Government reported that approximately 4.1 million people require emergency assistance.
- ◆ Maize production in 2016 is estimated to have dropped by about one third from the reduced 2015 output to about 512 000 tonnes. This year's sharp decline is mostly attributable to drought conditions, particularly in southern areas, driven by the El Niño episode.
- ◆ Over 25 000 cattle have died due to the effects of drought, and pasture conditions range from poor to very poor.

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.
- The Government signed contracts to import 663 335 MT of maize grain from Zambia, South Africa, Mexico and Ukraine.
- By end of May an estimated 85 000 MT of maize had been delivered from Zambia and South Africa
- The Government issued permits to the private sector to import 850 000 MT of maize grain
- In response to the Government's Appeal, The UN and Humanitarian partners prepared the Zimbabwe Humanitarian Response Plan (April 2016 to March 2017) with a budget of USD 360 million covering 5 sectors; Agriculture and Food Security; Health and Nutrition; Education; Protection; Water Sanitation and Hygiene.

FAO

- A Drought Mitigation Programme has been prepared to address the impact of the drought with the anticipated effects of El Niño.
- Supported 8 000 households to access livestock survival feed and drought-tolerant seeds of sorghum and cowpeas in 7 districts.

Funding requirements

USD 33.6 million required to fully implement FAO Zimbabwe's drought mitigation programme, of which USD 2.7 million has been received from CERF and ECHO. Priorities include providing subsidized drought-tolerant seeds (small grains and legumes); subsidized survival stock feed; rehabilitating 280 water points; animal health interventions (foot-and-mouth disease and anthrax vaccination); and strengthened early warning systems.



Situation and outlook

- ◆ Over 679 400 people are in need of humanitarian assistance up to May 2017 out of which over 476 800 people require both life-saving and livelihood support while over 202 500 people require assistance to protect their livelihood assets. The impacts of recent events are further compounded by vulnerability factors such as a 23 percent HIV prevalence and chronic malnutrition at 33 percent.
- ◆ The 2015/16 agricultural season has been very poor; the production of maize is estimated at 25 436 tonnes down from 65 636 tonnes in 2014/15 while wheat and sorghum are estimated at 4 386 tonnes and 1 138 tonnes, down from 7 069 tonnes and 9 529 tonnes in 2014/15 respectively. The decline in production is reflecting severe dry conditions during most of the 2015/16 cropping season, as well as the impact of frost from the mountainous regions.
- ◆ Food prices have risen sharply, mostly due to poor production and high prices in South Africa.

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 Disaster Management Authority has released a National Drought Emergency Response Plan estimating a total of USD 12 million required for the agriculture and food security sector to respond effectively to the drought effects. This amount will be reviewed upon completion of the Lesotho Vulnerability Assessment (June 2016) and the 2015–2016 crop forecast. Recovery needs in the period 2016–2017 will certainly exceed these initial estimates.

FAO

- FAO has been prioritizing strengthening national capacity for response while providing overall coordination and needs assessment support.
- At household level, FAO intends to support communities affected by drought in the adoption of climate-smart agriculture technologies such as conservation agriculture, home gardening and nutrition, and sustainable land management through the provision of inputs and training.
- FAO will also complement the government's social protection cash grants with home gardening and nutrition packages targeting the poorest households affected by the drought and increase in food prices.

Funding requirements

The **Emergency Response Plan** was budgeted at **USD 7 million** to support more than 44 000 drought-affected households, but targets are being revised upwards based on the emerging needs. Currently, USD 2.8 million has been committed by ECHO, CERF and the Netherlands. Priorities include providing social protection and agriculture support and nutrition enhancement; protection and restoration of livelihoods through recovery seed production packages and technical support on climate-smart agriculture; climate-smart food production in schools; protection of livestock assets and information coordination and policy analysis.



Situation and outlook

- ◆ An estimated 638 251 people are food insecure in 2016 according to the latest vulnerability assessment reports.
- ◆ Maize production in 2016 is estimated at 33 460 tonnes, down 64 percent from the previous year, mostly resulting from suppressed seasonal rains.
- ◆ The national average maize meal price in March 2016 was 64 percent its year earlier value, mainly reflecting the high prices in South Africa and the low domestic production.
- ◆ Reports indicate approximately 67 080 cattle have died due to the effects of drought.

Swaziland El Niño response

Government and other partners

- The Government has extended the duration of the drought emergency declaration to 18 May 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.
- The Vulnerability Assessment Committee's 2016 evaluation is expected to take place in May/June, and will provide updated figures on the number of food insecure in 2016/17.
- 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.

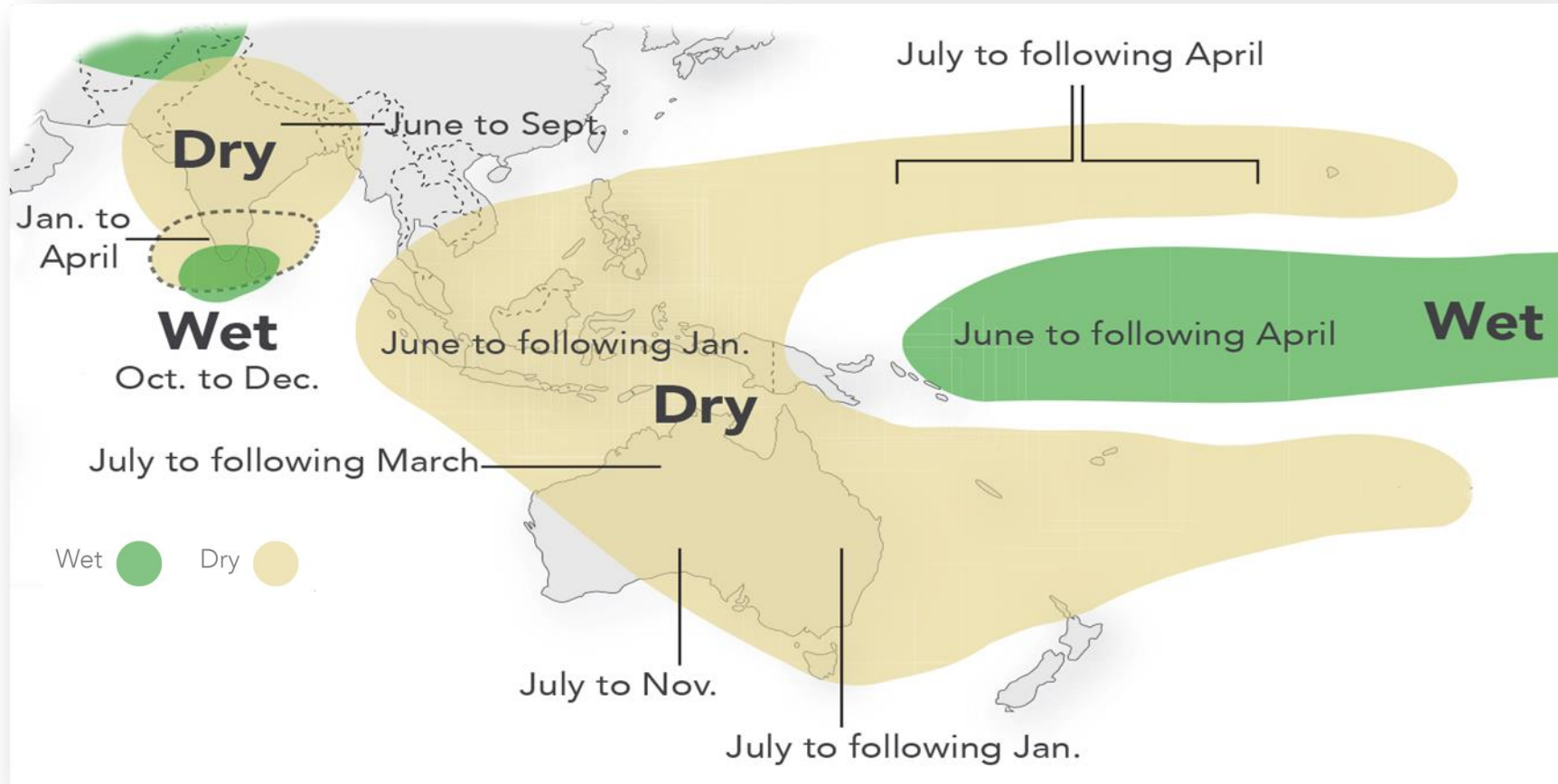
Funding requirements

USD 8.4 million required to assist 66 900 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 a four-month operation which will distribute 5 400 tonnes of food relief to 180 000 people in the six worst affected local level government areas.

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 600 000 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 600 000 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.



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 agrometeorology 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. Another eight provinces are at risk of becoming severely affected in the coming weeks.
- ◆ Rains since mid-May improved over large areas of the country. However, parts of the north and south-central coastal regions continue to be affected by dry weather.
- ◆ 1.1 million people are in need of food assistance and 1.75 million people have completely lost their livelihood.
- ◆ 477 113 ha of crops have been damaged, which are the most important source of livelihood in Vietnam, and a total of 600 000 ha could be damaged by July.
- ◆ 5 383 animals (cows, pigs, buffalo, and chickens) have perished.
- ◆ 80 000 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.). Most farmers need to purchase inputs to start their upcoming agricultural activities for the monsoon season, as well as restore and continue animal production. 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.
- ◆ Rains have started but are irregular and below average. While weather conditions are gradually improving, the drought and saltwater intrusion impact on people and their livelihoods is still lasting for the rest of the year and longer.
- ◆ 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 submitted a request for UN and donor support in response to the drought in the Central Region and Central Highlands and to seawater intrusion in the Mekong Delta of Viet Nam.
- A multi stakeholder meeting (NGOs, UN, and Government) has been organized by the Government to prepare for the drought in the southern part of the country. The Government has declared a State of Emergency in 15 provinces.
- The Government, UN and international NGOs carried out a multi-cluster rapid assessment to better understand the immediate needs of six affected provinces. The report was released on 15 April 2016.

FAO

- The FAO Strategic Programme for Resilience committed USD 32 000 for a mission in February and assisted the Ministry of Agriculture and Rural Development's Institute for Water and the Environment with the development of a Drought and Stress Monitoring Index for the South Central Coast and Central Highlands of Viet Nam.
- An in-depth assessment of the damages and losses caused by the drought to the food security and livelihoods of affected rural households is also under preparation.

Funding requirements

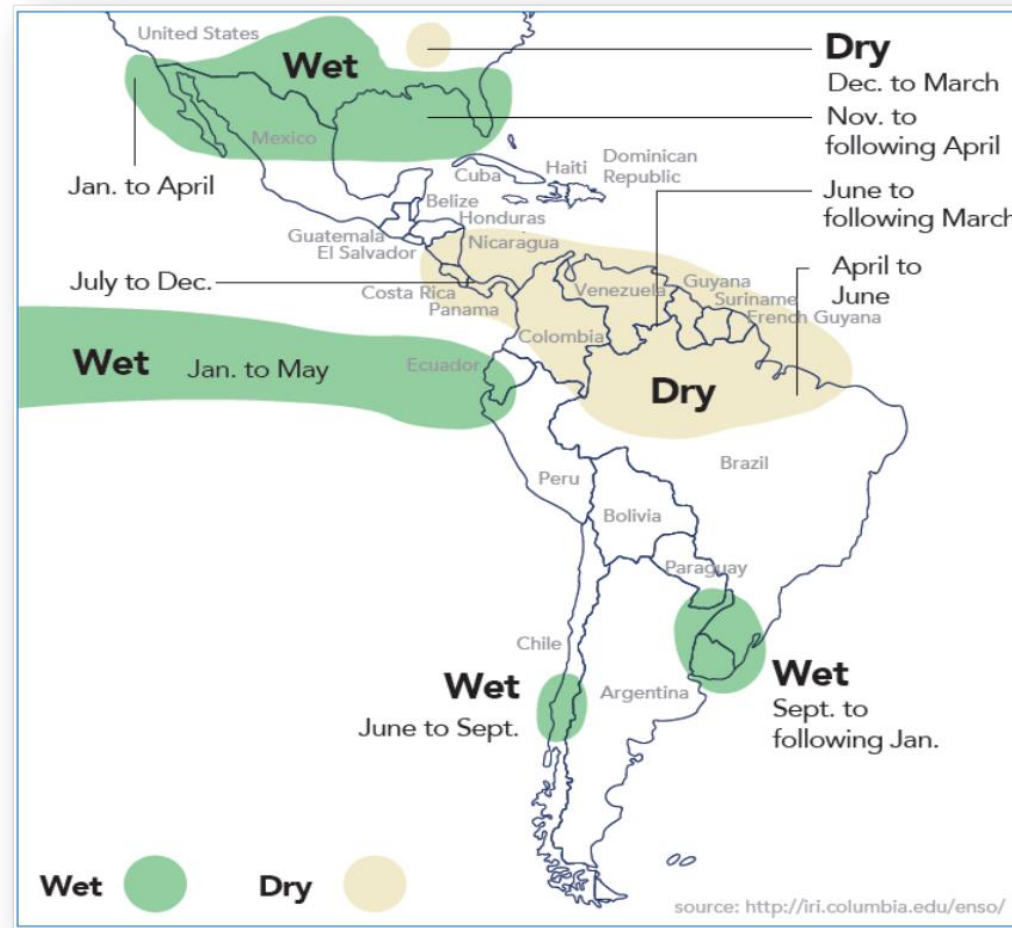
USD 5 million is required to respond to all 15 affected provinces for the next 6 months. Priorities include:

- in-depth assessments on disaster impacts to address the significant information gaps;
- emergency distribution of seeds, tools and fertilizer before the coming rains (June in the Mekong Delta and August in the central highlands); and
- emergency provision of water, feed to livestock and feed storage assistance and restocking after the rains start.

LATIN AMERICA AND THE CARIBBEAN

Historical El Niño regional trends for Latin America and the Caribbean

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 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.



Drought

Situation and outlook

- ◆ Recent joint assessments indicate that 1.5 million people are in need of humanitarian assistance. Some 720 000 people are severely 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.
- ◆ 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.
- ◆ 10 percent of people in Guatemala suffer from moderate or severe food insecurity.
- ◆ Until the next harvest (August 2016) the food security situation is going to deteriorate due to the reduction of household seed stocks.
- ◆ Sowing of the main 2016 “*de primera*” agricultural season has been delayed because of the late start of the rainy season.
- ◆ Rainfall levels have improved particularly in the first dekad of June. However, accumulated precipitation levels remained below average due to the dissipating El Niño. The “*primera*” corn harvest will depend on a continued improvement in precipitations through June.

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 an emergency response programme targeting 7 000 families.
- USD 500 000 through the Special Fund for Emergency and Rehabilitation Activities has been committed to the Dry Corridor (Guatemala and El Salvador) to promote actions aimed at reducing vulnerability and to increase livelihoods’ resilience in the agriculture, forestry, livestock and fisheries sectors.
- Implementing a 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 (short cycle and drought-resistant crops, water harvesting systems, community contingency funds, agroforestry, etc.).

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 and in need of immediate humanitarian assistance.
- ◆ 15 percent of people in Honduras suffer from moderate or severe food insecurity.
- ◆ Preliminary estimates indicate crop losses 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.
- ◆ Until the next harvest (August 2016) the Food Security situation is going to deteriorate due to the reduction of basic grains family stock.
- ◆ Sowing of the main 2016 “*de primera*” agricultural season has been delayed because of the late start of the rainy season. Rainfall levels have improved particularly in the first dekad of June. However, accumulated precipitation levels remained below average due to the dissipating El Niño. The “*primera*” corn harvest will depend on a continued improvement in precipitations through June.

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 resilience programme in the Dry Corridor and designing new projects to support affected farmers.
- The resilience programme aims 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 (short-cycle and drought-resistant crops, water harvesting systems, community contingency funds, agroforestry, etc.).

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 — and the unfavourable dry weather forecast for the first quarter of 2016 — could aggravate the situation.
- ◆ Planting of the main 2016 “*de primera*” agricultural season is well advanced. After a delayed start of the rainy season, rainfall levels improved particularly in the first dekad of June. However, latest remote sensing data indicate that dry conditions still linger, particularly in the central regions of the country. So far, cumulative rainfall levels in June still remained below average in key producing departments of the country. A recovery in production of the “*de primera* season” will depend on a continued improvement in precipitations through June, when sowings conclude. Early official estimates point to a recovery of production from the drought reduced levels of the past two years.
- ◆ If no humanitarian assistance is provided, there is a high likelihood that vulnerable farmers will face severe food insecurity from March 2016 and at least until the next harvest (August 2016).
- ◆ 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.

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.

Funding requirements

Currently being assessed. The Government has not requested any emergency support from FAO.



Situation and outlook

- ◆ 192 000 households are facing severe acute malnutrition.
- ◆ The Ministry of Agriculture and Livestock estimates that 85 858 ha of maize have been lost or damaged. Due to irregular rainfall during 2015, 60 percent of the maize crop was destroyed. Drought has now affected 161 180 farmers, mostly maize producers.
- ◆ 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.
- ◆ River levels are 20 to 60 percent lower than normal. In eastern areas, rivers are up to 90 percent lower and below average rainfall, as well as above average temperatures, are forecast to last until at least March 2016.
- ◆ 700 000 people (11 percent of the population) are suffering from moderate or severe food insecurity.
- ◆ Until the next harvest (August 2016) the food security situation is going to get worse due to the reduction of household seed stocks.
- ◆ Sowing of the main 2016 “*de primera*” agricultural season has been delayed because of the late start of the rainy season. Rainfall levels have improved particularly in the first dekad of June. However, accumulated precipitation levels remained below average due to the dissipating El Niño. The “*primera*” corn harvest will depend on a continued improvement in precipitations through June.

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.
- A CERF project is being implemented by FAO to rehabilitate and diversify the agricultural production of 17 785 people affected by drought.
- USD 500 000 through SFERA has been committed to the Dry Corridor (Guatemala and El Salvador) to promote actions aimed at reducing vulnerability and to increase livelihoods’ resilience in the agriculture, forestry, livestock and fisheries sectors.
- Implementing a resilience programme in the Dry Corridor to strengthen DRM capacities of the national and local authorities.

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.</p> <p>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	<p>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 Djibouty-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>	<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	<p>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.</p>	

EAST AND SOUTHERN AFRICA			
Country (INFORM rank)	Potential disaster(s)	Outlook/current situation	Early action and response
Zambia (70)	Drought	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>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 7 million required to assist 424 000 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
Nambia (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. According to the vulnerability assessment for 2015/2016, 578 480 people (almost a quarter of the total population) are currently food insecure. Food security conditions have weakened, with most households having already depleted their stocks from last year's harvest and relying on market supplies and the Government's Drought Relief Food Programme, which ended in March 2016. Conditions of the 2016 cereal crop, to be harvested from May, are generally unfavourable. Delayed planting and insufficient rains during the 2015/16 cropping season have compounded the impact of the dry conditions of the previous season. Overall, cereal production in 2016 is provisionally forecast at 75 000 tonnes, based on a Government-led assessment in February, putting this year's crop at 33 percent below the five-year average, but this is slightly higher than last year's reduced harvest. The poor seasonal rains have also negatively impacted on pasture growth and water availability, resulting in a deterioration of livestock body conditions. Many farmers in northcentral, northwest, central and the southern parts have reported increased livestock mortality rates on account of the dryness. Veld fires have also contributed to a reduction in the availability of grazing.</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 2.3 million required to assist 50 000 households. Priorities include vegetable seed and fertilizer distribution; 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	The El Niño-induced drought has significantly affected crop and livestock production and there are indications that food prices are beginning to rise. Seven provinces in South Africa have been declared disaster drought areas. Harvesting of the 2016 summer cereal crops is expected to commence in April and current prospects indicate a sharp production decline with the maize output forecast at 7.7 million tonnes (commercial and non-commercial crop), 28 percent down from the below-average 2015 harvest. South Africa's severely reduced crop production has had serious impacts throughout the Southern Africa region due to only reduced grain exports being sent to neighbouring countries. 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>
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 Hpakant. 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 one 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 40 percent and 31 percent of the country (mostly in Mindanao) will likely experience drought this April and May, respectively. Since 2015, the Department of Agriculture estimated 284 796 farmers have been directly affected by El Niño-associated drought/dry spells. Of this, 49 percent are rice farmers, 41 percent are corn farmers, and 10 percent are high value crop farmers. In terms of land area, a total of 374 946 ha were affected. The majority affected are corn areas (55 percent), followed by rice (40 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) and drought-affected farmers. 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>An estimated 3 million people living below the poverty line were affected by severe drought between October and December 2015, of which 1.2 million are dependent on rainfed agriculture. The 2015 drought affected around 570 000 ha of the 2015 secondary paddy season and damaged 210 000 ha representing 4 and 2 percent respectively, of the total area planted to rice in 2015 For the 2016 main season, by March 2016, around 60 000 ha of paddy fields had been affected by drought and 10 000 ha damaged. Torrential rains in early 2016 caused seasonal floods, affecting around 120 000 ha and damaging 25 000 ha of paddy fields. The prolonged drought in 2015-2016 reduced income for highly vulnerable subsistence farming families. Although rice prices, the country's main staple, weakened for the third consecutive month in May 2016, they remained above their year earlier levels. High prices of rice strained the food and livelihoods security of vulnerable households. Seasonal forecast for the 2016 dry season (June-August) shows above-normal precipitation levels, causing increased risk of flooding. High tides and waves and heavy rainfall have already caused flooding in parts of the country in May and early June. The likelihood of La Niña and negative Indian Ocean dipole occurring in the second half of 2016 is increasing and can lead to more rain-related flooding and storm surge. The La Niña event in 2010-2011 affected the country's crop and coffee production. The event also negatively impacted marine fish and salt production.</p>	<p>Government and other partners: A UNCT focus group for El Niño, co-led by FAO and WFP, has been monitoring impacts and identifying actions for response. In cooperation with ACAPS, key government agencies and NGO's, the focus group developed four humanitarian scenarios for likely impacts of El Niño (and possible La Niña conditions) on the food security situation in 2016. The focus group is engaging relevant line ministries to follow-up on the recommended actions for the developed scenarios. The Government has allocated USD 258 million to improve the national rice reserves and to stabilize the prices of staple foods. In March 2016, west Sumatran province, Riau, declared a State of Emergency over forest fires and enhanced the fire prevention and management efforts.</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	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>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
Mongolia (116)	Cold Wave	<p>In 2015 to 2016, Mongolia experienced a critical <i>dzud</i> (a very hot, dry summer followed by an extremely harsh winter) in a number of provinces and districts, with large variations across districts. This placed significant strain on already vulnerable herder households in Mongolia, and since January 2016, 1.1 million (of the total 56 million) livestock have perished, affecting 41 per cent of the population who rely on livestock for their main source of food and cash. Partners are now beginning to implement early recovery activities and to address medium-term priorities linked to El Niño and climate change impacts. In anticipation of further extreme weather cycles, investment in preparedness capacity (human and technical capacity) and resilience-building measure are critical to manage the impact of climate change including desertification and the likelihood of water scarcity for livestock and herders. The National Emergency Management Authority has officially declared the winter <i>dzud</i> over, however conditions remain uncharacteristic with frequent temperature variation, low precipitation and further dry weather anticipated.</p>	<p>Government and other partners: The Government had allocated USD 5.3 million to support herders and is urgently trying to export meat to Viet Nam, China and Russia as well as up to 10 million live animals to China. In early January 2016, the Government released an assessment report claiming 50 soums (districts) in 16 aimags (provinces) are currently categorized as experiencing <i>dzud</i> while 120 soums in 20 provinces are on the edge of entering <i>dzud</i> condition. The UN/CERF and Humanitarian Country Team (HCT) support ensured livelihood survival of 4 390 herder households and their livestock in 44 districts of six provinces during the winter. The agriculture component for animal feed and health packages followed overall HCT response areas. The HCT is seeking USD 14.3 million to provide assistance in food security, nutrition, protection, health, agriculture, livelihoods and early recovery. This will encompass investment in both immediate response and preparedness capacity, and has been determined as part of the CERF activation (which may be revised subject to evolving needs, particularly in line with the likely need for response to low precipitation in summer). Preparedness capacity requires substantial support to improve involved Government staff and technical support.</p> <p>FAO: With the Government of Mongolia, FAO is responding to the epidemic outbreak of sheep and goat pox and working with Government of Mongolia to assess emergency preparedness and triggers in line with Livestock Emergency Guidelines and Standards (LEGS) as well as Good Emergency Management Practices (GEMPs) leading towards early action in the face of climate change.</p> <p>FAO's funding requirements total USD 8 million, out of which USD 854 000 has been committed from CERF.</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>Bolivia has been facing a combination of flooding and drought risk due to El Niño. The locality of Guanay was recently affected by floods but in other parts of the country rains, such as the high plateau and the Chaco region amongst others, are below average. A cold wave and hail has also 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>Sowing of the main 2015/16 summer season maize crop was concluded in early December. Latest estimates point to a 27 percent contraction from last year's level to 80 000 ha, mainly reflecting low market prices.</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.</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 into March 2016.	

LATIN AMERICAN AND THE CARIBBEAN			
Country (INFORM rank)	Potential disaster(s)	Outlook/current situation	Early action and response
Paraguay (142)	Floods	Intense rainfall during November and December 2015 led to flooding of Paraguay, Parana and other minor rivers. 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). Early forecasts for the 2016 maize crop, currently being harvested, point to an almost 36 percent decrease in production from last year's record level. At the forecasted level of almost 3.3 million tonnes, this year's output would be close to the average of the past five years.	<p>Government and other partners: In January 2015, the Government of Paraguay assisted nearly 16 000 households affected by floods.</p> <p>FAO: Following a request of assistance from the Government, FAO allocated USD 500 000 from the Technical Cooperation Programme emergency funds to assist affected farmers in the Presidente Hayes department. It is also 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>
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.</p> <p>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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