GLOBAL RISK MAP
OCTOBER – DECEMBER 2017

This forward-looking report highlights major disaster risks to food security and agriculture in the indicated reporting period. When a new emergency or deterioration of the current situation is very likely and might have severe impacts, it is indicated as “high risk”. In the case of moderate to high likelihood and moderate or significant impact, the risk is listed as “on watch”. Ongoing humanitarian crises, such as protracted emergencies, are not highlighted in this report unless a deterioration is likely. For an overview of all ongoing humanitarian emergencies, please refer to the map on page 26.

* In the worst-case scenario the risk of famine remains. For further details see the country risk page.
SEASONALITY MAPS (OCTOBER-DECEMBER 2017)

The Global Seasonality Map provides overview of the agricultural and climate seasonality of the countries highlighted in this report. The agricultural seasons are country-specific and provide an insight into the status of the main (staple) crops during the reporting period. The climatic seasons provide a general overview of weather patterns in the highlighted countries as well as tropical cyclone basins relevant to the reporting period. The map is indicative and does not give exact geographical delineations. For more country specific details on the agricultural seasons of different crop types please visit the GIEWS Country Briefs page: http://www.fao.org/giews/countrybrief/index.jsp.

AGRICULTURE AND CLIMATE MAP
HURRICANE AND CYCLONE BASINS MAP

Northeast Pacific Basin
June-October
Peak: September

North Atlantic Ocean
June-November
Peak: September

North Indian Basin
April-December
Peak: May and November

Indian Basin
Peak Mid-January
Peak Mid-February

Australian/Southwest Pacific Basin
November-May
Peak: March

86% probability of near normal or above normal cyclone season

Source: NWS/NOAA
Background

The Global Early Warning – Early Action (EWEA) report on food security and agriculture is developed by the Food and Agriculture Organization of the United Nations (FAO). The report is part of FAO’s EWEA system, which aims to translate forecasts and early warnings into anticipatory action.

EWEA enables FAO to act early before disasters have happened and to mitigate or even prevent their impact. By lessening damages to livelihoods and protecting assets and investments, FAO can help local livelihoods become more resilient to threats and crises.

The Global EWEA report is a quarterly forward-looking analytical summary of major disaster risks to food security and agriculture. The report specifically highlights two types of contexts:

- potential new emergencies caused by imminent disaster threats; and
- the risk of a significant deterioration in countries currently in a situation of protracted crisis or already in the response stage of an emergency, with a severe impact on food security and/or agriculture. For this kind of risk, the analysis will focus on the additional risk factors which would, either alone or in combination with others, lead to a substantial deterioration of the situation.

Countries affected by protracted crises or already in the response stage of an emergency, where there are limited signs of a significant deterioration, are not included in the report. However, an overview of countries with humanitarian response plans or emergency plans is provided on page 26.

The report’s summary is rooted in the analysis provided by existing FAO corporate and joint multi-agency information and early warning systems, mainly:

- Global Information and Early Warning System on Food and Agriculture (GIEWS);
- Food Chain Crisis and Emergency Prevention System (FCC-EMPRES); and
- Integrated Food Security Phase Classification (IPC) and Cadre Harmonisé (CH).

Through a consensus-based process countries have been indicated as "high risk" when there is a very likely new emergency or deterioration of the current situation with potentially severe effects on agriculture and food security, and in which FAO and partners should start implementing early actions on a no-regret basis. Countries listed as "on watch" instead have a moderate to high likelihood of a new emergency or deterioration of the current situation, with potentially moderate or significant impacts on agriculture and food security. An overview of the risk ranking methodology is provided on page 5.

“In today’s global context of unprecedented humanitarian needs and increasing frequency of large scale natural disasters, anticipating and mitigating crises has never been more critical. The Early Warning - Early Action initiative has been developed with the understanding that disaster losses and emergency response costs can be drastically reduced by using early warning analysis to act before a crisis escalates into an emergency. Early actions strengthen the resilience of at-risk populations, mitigate the impact of disasters and help communities, governments and national and international humanitarian agencies to respond more effectively and efficiently”

José Graziano da Silva
FAO Director-General
Methodology

The most at-risk countries and regions are selected through a consultative process led by the early warning system focal points group (which includes the IPC Global Support Unit). The group also serves as the report’s key source of information (as outlined in the List of sources section). The main steps of the methodology are the following:

1. shortlisting countries flagged by the corporate early warning systems and IPC/CH through core publications and alerts;
2. triangulation of information on countries and regions at risk from other datasets and external early warning systems;
3. consolidation of information from corporate and external early warning systems; and
4. final vetting and ranking of countries and regions at risk.

The final vetting and ranking of countries is carried out by the focal point group, making use of the following criteria:

- **Likelihood** of occurrence is classified into five levels (very unlikely, unlikely, moderately likely, likely and very likely). The term likelihood applies to the probability that, within the time period considered, either a new disaster risk or the significant deterioration of the situation will occur;

- **Potential Impact** is ranked into five levels (negligible, minor, moderate, severe and critical). The impact is analysed through two dimensions, in terms of magnitude (the number of potentially affected people and/or geographical extent of the impact on agriculture and people’s livelihoods and food security) and severity (the gravity of the impact on agriculture and people’s livelihoods and food security, especially in relation to pre-existing vulnerability and food insecurity); and

- **Country Capacity** to cope with and respond to potential disasters or deteriorated situations is also classified into five levels (very low, low, medium, high and very high). Lack of coping capacity, one of the Index for Risk Management’s (INFORM) dimensions, is used as a reference.

The three criteria are inserted in a risk matrix which determines the final result of the risk evaluation.

In a context where a new emergency or the further deterioration of the situation might lead to an increased risk of famine, or when famine occurrence has been declared, this aspect is particularly highlighted in the cover map and narrative of the report with respectively two categories: “Risk of famine” and “Famine declared”.

**Recommendations for early actions**

Early action recommendations, indicated for each risk, aim to briefly outline some of the most appropriate interventions over the coming months which could prevent, mitigate or prepare for the potential impact of a specific disaster on the agriculture sector and livelihoods. Recommendations are therefore sector specific and non-binding in nature. Early actions can vary from interventions aiming to protect livelihood assets to planning and preparatory activities. Recommendations are developed by FAO through a consultative process involving technical experts and FAO country offices.
Risk overview

Yemen’s food security situation continues to worsen as conflict hampers key transport routes and exacerbates a rapidly expanding cholera epidemic. As of July 2017, over 17 million people or 60 percent of the population are in Crisis (IPC Phase 3) or Emergency (IPC Phase 4). Out of 22 governorates, seven are experiencing Emergency conditions including Lahej, Taiz, Abyan, Sa’ada, Hajjah, Al Hudaydah and Shabwah. In these areas, widespread clashes are further impeding relief efforts.

As of August 2017, the prices of food imports were relatively stable and provided some respite; however, conflict continues to disrupt trade. Compared with pre-crisis levels, food prices remain high (by 31 percent for wheat grains, 33 percent for wheat flour, 46 percent for sugar and 81 percent for rice).

Widespread insecurity continues to hamper humanitarian agencies to reach communities and compromises the delivery of key imports. Most recently, the closure Sana’a airport has blocked access to critical provisions, such as food and medicine. Al Hudaydah port, which channels 80 percent of Yemen’s imports, remains to operate at a reduced capacity due to damage sustained from attacks. Fee increases at the port have also exacerbated import costs and ensued delivery delays.

As of September 2017, cholera continues to spread across the country at an accelerated rate, with Yemen now hosting the largest cholera epidemic in the world. Over 738,200 suspected cases – an 87 percent increase since June 2017 - and 2,110 deaths have been confirmed. The World Health Organization (WHO) warned that health systems are struggling to cope, with more than half of all facilities closed due to damage or lack of funds. The worst affected governorates include Sana’a City, Al Hudaydah, Amran and Hajjah.

Potential impact

In a worst-case scenario, the risk of Famine (IPC Phase 5) is foreseeable in localized areas where conflict further contributes to the deterioration of key transport routes, resulting in declines in humanitarian inputs and the spread of cholera.

If key transport routes such as Al Hudaydah port and Sana’a airport remain inoperable or with limited access, this will likely intensify food and medicine shortages, affect households’ purchasing power and compound an already large-scale humanitarian crisis.

The cholera outbreak continues to present a serious health risk. At present, over 7.6 million people live in areas at high risk of cholera transmission.

Recommended early actions

To address the risk of famine in the worst-case scenario, access to vulnerable communities is urgently required to support humanitarian efforts. Using this approach, the following actions are recommended:

• enhance emergency livelihood support activities in particular to support backyard income-generating activities and food production;

• preposition food stocks and agricultural materials;

• urgently provide food and cash-based lifesaving assistance to vulnerable groups;

• safeguard pastoralist assets by enabling access to livestock vaccinations, health treatments and restocking;

• support rainfed agriculture and livestock production by improving water access and availability;

• initiate cash-for-work activities to generate income and support agriculture value chains;

• complete the Food Security and Agriculture Cluster-led famine risk monitoring in the 95 high priority districts;

• improve national early warning systems by: (i) strengthening agro-climatic monitoring; (ii) strengthening data collection, management and climate analysis capacity of national institutions; and (iii) designing appropriate communication/dissemination strategies; and

• support the reinstatement of social and productive safety net programmes and policies to reduce unemployment and support livelihoods.
THE DEMOCRATIC REPUBLIC OF CONGO (DRC)

1 Localized conflict

Escalation in conflict leading to high levels of food insecurity

Risk overview

- Intercommunal conflicts in central and eastern DRC are causing the displacement of many Congolese and causing more than one in ten people living in rural areas to suffer from acute food insecurity.
- According to the recent June 2017 IPC analysis, 7.7 million people face acute hunger and require urgent humanitarian assistance with 1.5 million people currently at Emergency levels (IPC Phase 4). The number of food insecure people rose by 1.8 million (30 percent) compared with June 2016, showing the velocity and the extent of the deterioration of the situation.
- In the most affected areas such as Kasai and Tanganyika provinces, insecurity has pushed many farmers to flee their villages and fields and has disrupted local markets.
- The humanitarian situation in DRC further worsened by the spread of fall armyworm infestations affecting mainly maize production. Cholera, measles and bird flu outbreaks were also reported.
- According to the IPC analysis, the additional aggravating factors include high chronic poverty levels in rural areas (65 percent), internal displacement of about 3.7 million people and the depreciation of the local currency against the US Dollar directly affecting people’s purchasing power.

2 Potential impact

- Considering the fragile political climate, conflict and the ongoing military operations, insecurity is likely to continue during the upcoming months, possibly driving further displacements and disrupting trade and livelihoods and affecting people’s access to food and assistance.
- The harvest of the 2017 “B” growing season (June - September) is expected to be below-average due to the below-normal levels of rainfall in several northeastern parts of the country. The armed conflict in Kasai and Tanganyika provinces might further deteriorate the food security and nutrition situation preventing poor households from having adequate food stocks.
- With the upcoming lean season from October to December and low household food stock, vulnerable households are expected to increasingly adopt negative coping strategies and rely heavily on markets to access food.

3 Recommended early actions

Considering the gravity of the situation in DRC and in order to safeguard livelihoods, the following agricultural-based early interventions are recommended:

- ensure basic nutritious diet to households at risk of malnutrition through the provision of small livestock (guinea pigs and rabbits) to children and women or vegetable production options (amaranth, eggplants and gombo);
- rebuild livelihoods in conflict-affected areas through the provision of short-cycle cereals and vegetable seeds and other agricultural emergency inputs such as tools and fertilizers’;
- organize and provide trainings on local gardening and nutrition through feeding centres and primary school networks to reach both children and their parents; and
- promote access to animal proteins and health centres.

Furthermore, in order to address the rapidly changing and severe situation, close monitoring of the food security situation is required; specifically through the production of regular and timely IPC analysis and increased coordination among actors on the ground are highly recommended.

Funding of the Food security cluster

- 44%
Recommended early actions

The continuation of scaled-up humanitarian assistance is critical to prevent famine in severely affected areas. Support in rural areas can also act as a key pull factor to encourage early returns of internally displaced people (IDPs). The following activities are recommended for the period of October–December 2017:

- scale up of cash-based assistance to increase food access;
- urgent provision of agricultural inputs to enable farmers and agro-pastoralists to plant for the Deyr 2017 cropping season (beginning in October);
- provision of emergency livestock support to keep animals alive and productive, including vaccination, treatment, fodder/feed supplements, water tanks and water trucking as necessary; and
- work with authorities to plan and prepare for a potential outbreak of the fall armyworm. While an outbreak was not officially declared in Somalia, considerable risk remains given its presence in neighbouring countries.
Acute Food Insecurity Situation in Somalia,
August – December 2017

Source: IPC (2017)
Prolonged drought
Rapid deterioration of the food security situation due to prolonged drought

Risk overview

- Three consecutive years of below-average rainy seasons in Ethiopia and Kenya have led to prolonged drought conditions severely affecting people’s food security and livelihoods. As a result, food insecurity across both countries has deteriorated in recent months. As of August 2017, 2.6 million people in Kenya are facing IPC Phases 3 and 4 conditions and 8.5 million in Ethiopia require emergency food assistance.
- In Kenya, deterioration in the food security of the population and the nutrition status of children was observed in 11 out of 23 arid and semi-arid counties of Kenya, with extremely critical malnutrition rates in Turkana, parts of Marsabit and Mandera.
- In Ethiopia, the Somali Region is the most affected, with 1.7 million people (31 percent of the region’s population) requiring emergency livelihood and food assistance. The food insecurity situation is compounded by significant livestock losses and limited food availability, pasture and water.
- Below-average livestock productivity in both countries has kept milk production and livestock sales at low levels, limiting household income and reducing nutrition. In the Somali region, where most households are pastoralist and rely mainly on livestock, at least 2 million livestock deaths were reported.
- Fall armyworm, mainly affecting maize and sorghum, has further compounded the situation. As of July 2017, 22 percent of the total area planted in Ethiopia was reported to be infested; while, 200 000 ha of maize crop fields in major producing western and Rift Valley Kenyan counties were also impacted.
- In both countries, the below-average performance of Belg and Meher harvests coupled with the spread of fall armyworm have resulted in a sharp increase of food prices, further straining poor households relying mainly on markets to access food.

Potential impact

- According to the GHACOF forecast, the October–December rains are likely to be near normal to below-average for the northern pastoral areas.
  - In Ethiopia, a failed Deyr/Hageya rainy season (October–November) is likely to drive further displacement caused by the loss of livestock and other productive assets.
  - In Kenya’s pastoral areas, short rains are expected to bring some relief, however this improvement is likely to be modest. Increased grazing pressure and high temperatures are expected to further drive abnormal livestock migration that could cause inter-communal conflict as well as reduce milk consumption and incomes.

Recommended early actions

To protect vulnerable communities and support their livelihood resilience, the following activities are recommended for the October–December period:

- **For the livestock sector:**
  - emergency livestock support including the provision of feed, water and veterinary care;
  - support quick growing fodder and feed production in reliably irrigated areas;
  - strengthen livestock disease surveillance and control operations; and
  - foster inter-communal agreements to support the management of livestock mobility.

- **To strengthen household livelihoods and access to water:**
  - provide unconditional cash, combined with in-kind productive assets and training (“Cash+”) to meet immediate needs and restore livelihoods; and
  - implement cash-for-work programmes to rehabilitate water sources and expand rainwater harvesting capacity.
Acute Food Insecurity Situation in Kenya, July 2017

Source: IPC (2017)

Acute Food Insecurity Situation in Kenya, August – October 2017

Source: IPC (2017)
Risk of famine due to conflict
Armed conflict, economic crisis and pest outbreaks

1 Risk overview

Due to ongoing humanitarian assistance, the number of people in Famine (IPC Phase 5) conditions has decreased from 100,000 since April 2017 to 45,000 in July 2017, however the situation remains critical. Despite favourable weather conditions for the November 2017 cereal harvest, prolonged conflict, economic stress and pest outbreaks have severely disrupted the agriculture sector.

As of July 2017, 6 million people or 50 percent of the population are estimated to be in Crisis, Emergency and Famine (IPC Phase 3, 4 and 5) conditions. Areas of particular concern include Greater Jonglei and Unity States where 63 and 61 percent of the population are affected, respectively. Furthermore, 25,000 people in Unity State (Leer, Koch and Mayendit) and 20,000 in Ayod county of Greater Jonglei are facing famine conditions. A large-scale humanitarian response is containing famine in Unity State.

Widespread insecurity constrained farmers’ access to fields and led to large-scale displacements. Over 1 million people have sought refuge in Uganda, causing many to miss the 2017 main planting season.

The macroeconomic situation continues to worsen as banks shut down, salary backlogs persist and hyperinflation erodes household purchasing power. Consequently, the South Sudanese pound continues to weaken, further inflating import prices. As of August 2017, food prices for maize and sorghum were twice as high compared with August 2016 levels.

Livestock disease outbreaks continue to threaten food security and livelihoods. Reported presence of fall armyworm in all states is causing significant crop damage, particularly in former Northern Bahr el Ghazal, Eastern Equatoria and Central Equatoria. Outbreaks of Foot-and-Mouth (FMD) disease were also confirmed in localized areas. While FMD does not instantly kill livestock, it does reduce their productivity.

2 Potential impact

In a worst-case scenario, the risk of famine is likely if conflict persists and compromises access to high-risk areas. Heavy rain until November 2017 could also hinder critical humanitarian support.

Prospects for the 2017 cereal harvest are generally unfavourable as ongoing conflict and pest outbreaks continue to hinder agricultural activities. In the traditional surplus-producing areas of southern Greater Equatoria Region, production is expected to be lower than the already poor 2016 output.

FMD outbreak is likely to cause significant yield losses for the upcoming cereal harvest. In addition FMD could easily spread to over 26 million cattle, goats and sheep, if not mitigated.

3 Recommended early actions

Considering the complexity of the crisis, continued humanitarian assistance is required to address basic needs and livelihoods. In this context, it is critical to support both the agriculture and livestock sectors. Actions can include the following:

- urgently provide food and cash-based lifesaving assistance to the most vulnerable groups and areas;
- encourage voucher systems focused on nutrition to provide access to food and inject cash into the local economy;
- provide veterinary services to pastoralists and livestock health interventions including treatments against internal and external parasites, endemic and infectious diseases (such as FMD);
- prepositioning inputs for rapid response (including fast-maturing vegetable seed and fishing kits) in order to scale up distribution for people living in wetlands, providing immediate sources of food and income;
- support the most vulnerable population groups in urban and peri-urban areas by encouraging improved post-harvest processing (particularly on food conservation and utilization) and agriculture production practices;
- promote mitigation measures for effective FAW control and extension services including awareness raising, coordination, training of trainers for plant protection staff on pest identification, yield loss assessments, management options and safe use of pesticides; and
- support the Crop and Food Security Assessment Mission scheduled for December.

Funding of the Food security and livelihood cluster

73%
1 Risk of famine due to conflict
Deterioration of conflict-driven food security

Northeast Nigeria remains highly dependent on humanitarian assistance. Some 5.2 million people in Adamawa, Borno and Yobe States are severely food insecure, including 50,000 people in famine-like conditions. In addition to the Boko Haram insurgency, continued displacement, low market functioning, reduced land cultivation and destruction of infrastructure further deepen the food insecurity situation.

Many areas remain inaccessible to humanitarian actors. This increases the likelihood of a prolonged risk of famine, especially in Borno State.

The Government of Nigeria, alongside other key agencies, are scaling-up their response through food assistance, targeting 1.8 million people in the northeast. However, the spontaneous return of refugees from neighbouring countries as well as security and access constraints will continue to limit the capacity of humanitarian actors to fully implement emergency and resilience building activities.

Widespread insecurity has led to the internal displacement of 1.7 million people across Adamawa, Borno and Yobe States.

According to the Famine Early Warning Systems Network (FEWSNET), agricultural labour wages in the northeast have declined by 40 percent compared to average, while food prices remain at higher levels compared with other neighbouring areas.

2 Potential impact

Although the October to December period marks the harvest season of different crops in the country, food security conditions in the conflict-affected areas in the northeast are not expected to improve significantly due to the severe impact of the conflict on livelihoods and food access constraints.

The situation remains volatile with the presence of Boko Haram in a number of local government areas. Any new cases of conflict escalation will likely result in further population displacement and a further increase in food security and livelihood support needs.

The return of refugees from neighbouring countries, security and access constraints will limit the capacity of humanitarian actors to fully implement response actions.

3 Recommended early actions

Priority actions until the end of the year should focus on supporting the most vulnerable during the dry season. Without agriculture and livestock support over the following months, many vulnerable IDPs, returnees and host communities will engage in severe coping mechanisms, further straining their capacity.

This can be achieved by:

- providing critical early recovery livelihood restoration to returnees, host communities and IDPs with access to land through:
  - distribution of critical agricultural inputs for vegetable production in the dry season (vegetable seeds and fertilizer, and water pumps and boreholes for irrigation);
  - training of farmers; and
  - planning and preparation for the main rainy season in 2018.
- strengthening coordination between the Government and the humanitarian community to increase synergies within the food security sector;
- facilitating the access of vulnerable fishers to emergency aquaculture interventions especially through tanks, fingerlings and fish feeding supplies; and
- where possible, supporting the re-establishment of access to seasonal grazing areas and routes that have been disrupted because of the insurgency.

Funding of the Food security cluster
**DEMOCRATIC PEOPLE’S REPUBLIC OF KOREA (DPRK)**

## Risk overview

- Prolonged dry weather conditions in the Democratic People’s Republic of Korea from April to late June 2017 have raised concerns for the end of year harvest season. The situation is further exacerbated by strict economic sanctions imposed by the United Nations Security Council.
- Although rains in the first half of July provided some respite, their delay and non-uniform nature hindered the planting and development of the 2017 main crop season, which will be harvested in September–October. The worst affected areas, South and North Pyongan, South and North Hwanghae and Nampo City, collectively produce two-thirds of the nation’s cereal.
- Additionally, due to the dry weather conditions, the 2016/17 early season — a critical period for grain filling — was below average. Overall, production during this first season plunged by over 30 percent compared with the previous year (from 450 000 tonnes to 310 000 tonnes).
- According to the Office for the Coordination of Humanitarian Affairs (OCHA), some 18 million people, or 70 percent of the population, are considered food insecure, of which 10.5 million are undernourished and 1.3 million are children. These figures are derived from the number of people dependent on the government’s public distribution system.
- As of September 2017, the United Nations Security Council unanimously approved Resolution 2375, which imposes further economic sanctions on the country in light of the recent missile and nuclear testing. The sanction bans textile exports, halts natural gas liquid imports, temporarily restricts crude oil or petroleum products and prohibits Member States from providing work authorizations to nationals. This sanction builds upon Resolution 2371, which was recently approved in August 2017, and bans international trade goods such as iron, coal, lead and seafood. It further tightened the country’s participation in the international financial system by freezing Foreign Trade Bank assets excluding funds for humanitarian agencies.

## Potential impact

- Overall, food security is expected to deteriorate due to two consecutive poor harvests coupled with strict economic sanctions. Imposed sanctions could decrease the nation’s purchasing power and ability to replenish critical food stocks.

## Recommended early actions

To support agricultural activities and avoid further deterioration of food security, the following actions are recommended:

- provide farmers with timely agricultural input assistance and irrigation equipment, such as water pumps and sprinklers, including rehabilitation and upgrade of existing irrigation schemes;
- promote drought-tolerant crops and varieties as well as the diversification of crop livestock farming systems;
- provide plastic sheet and ready-to-install greenhouses mainly for vegetable production during winter; and
- support climate-smart agriculture activities.
MYANMAR

Displacement

1 Risk overview

- The recent escalation of violence in Myanmar’s northern Rakhine State has resulted in mass displacements, particularly towards southeast Bangladesh.
- As of August 2017, over 480,000 refugees have fled to neighbouring Bangladesh, primarily seeking refuge in and around the town of Cox’s Bazar. By the end of September, this number is expected to rise to 500,000.
- The majority of refugees are extremely vulnerable and in urgent need of humanitarian assistance. Although humanitarian agencies are supporting new arrivals in Bangladesh, they still struggle to cope with the rising needs, including limited access to the border and at-risk areas in Myanmar. As a result, essential food assistance was suspended, citing safety concerns and transport issues. The interruption of food assistance affects over 250,000 displaced people and vulnerable communities in Rakhine State.
- To respond to the growing needs, as of September 2017, the Government of Bangladesh allocated some 810 ha of land near Cox’s Bazar to host refugees. According to the United Nations High Commissioner for Refugees (UNHCR), this space has the capacity to host approximately 150,000 or more refugees.

2 Potential impact

- With conflict likely to persist, the arrival of Rohingya refugees into Bangladesh is expected to increase, with an estimated 6,000 – 15,000 people arriving per day. This will likely strain the capacity of the humanitarian community and host communities in Bangladesh, who are recovering from severe seasonal flooding and landslides. Scaling up humanitarian response will be required to cope with the influx of refugees.
- In Rakhine state, massive internal displacement and ongoing violent conflicts threaten the ability of local populations to harvest primary season crops and plant for the secondary season. This could result in reduced availability of food in the coming months.

3 Recommended early actions

To avoid further deterioration during from October to December, the following early actions are recommended:

- provide livelihood support (e.g. vegetable or home-gardening cultivation kits) to both refugees with access to land to improve food security and access to livelihoods;
- urgently provide food and cash lifesaving assistance to refugees in Bangladesh and those accessible in affected areas of Rakhine State; and
- preposition food stocks and agricultural materials to target vulnerable communities in Rakhine State.
SOUTH ASIA

1 Risk overview

- Heavy monsoon rains have triggered severe flooding across South Asia. While some flooding is normal in the region during the June–September monsoon season, the exceptional large-scale of this event has caused widespread damage to the agriculture, fisheries and livestock sectors. As a result, the loss of regional crop harvests will likely increase food insecurity and exacerbate macroeconomic challenges in the coming months.
- Across South Asia, over 40 million people have been affected, with at least 1 200 deaths. While humanitarian efforts are underway, damage to key transport infrastructures has hampered access. Particular countries of concern are Bangladesh and Nepal.
- Throughout 2017, Bangladesh has experienced a chain of intense and compounding floods. In April, an estimated 4.7 million people (31 percent of affected areas’ population) were impacted, which increased to 8 million people (across 32 districts) in August. Overall, over 650 000 ha of arable land were destroyed, contributing to elevated rice and staple commodity prices.
- As of September 2017, more than 415 000 refugees from Rakhine State in neighboring Myanmar fled to Bangladesh, increasing pressure on host populations, government services and humanitarian response teams.
- In Nepal, over of 1.7 million people were affected by the floods, particularly in the Southern Terai plains – approximately 126 200 households in 30 districts and over 272 600 ha destroyed. The total estimated crop loss was over USD 80 million. Furthermore, across the Terai belt, over 181 000 livestock perished and around 2 000 animals still require veterinary care.

2 Potential impact

- The situation could deteriorate as above-average rainfall are set to continue into October 2017, potentially further impacting livelihoods and hampering recovery efforts. Floodwaters are expected to move south, instigating both food security and water-borne disease issues.
- Loss of trade goods and livestock are likely to be high in the most affected areas, and together with disruptions to internal trade, this will constrain food availability and access.
- The severity of the floods and landslides could result in severe localized crop losses for the 2017 October–December main season harvest and delay planting for the next season, if key crop areas are not prepared.
- In Nepal, malnutrition rates are expected to worsen due to the onset of flooding; especially in the Terai plains, where 12.2 percent of children are already experiencing acute malnutrition.

3 Recommended early actions

To avoid further deterioration of the situation in late 2017, the following early actions are recommended:
• provide seeds and planting equipment for the 2017/18 Boro planting season including pest-resistant storage containers to protect seeds;
• support rehabilitation of critical infrastructures affecting the agriculture sector, mainly community-based irrigation schemes, market centres and river embankments close to farmlands and aquaculture facilities;
• provide rapid-maturing emergency vegetable livelihood kits to promote dietary diversity and cash income among vulnerable households;
• safeguard livestock through the provision of shelter, nutritious feed, mineral blocks, vaccinations, health treatments and restocking;
• rebuild fishing gears and rehabilitate aquaculture ponds alongside the provision of fingerling and fish feed pallet making machines;
• provide food and cash assistance to the poorest and most vulnerable households to prevent the adoption of negative coping strategies; and
• determine and review possible livelihood support for both affected and host populations in order to enhance their food security and nutrition and minimize potential inter- and intra-communal tensions.
Displacement and drought

Risk overview

- Food insecurity in Uganda continues to worsen as the country experiences unfavourable weather conditions that impact crop production. Simultaneously, Uganda hosts the fastest-growing refugee crisis in the world. Currently, over 1.35 million refugees, including about 1 million South Sudanese refugees fleeing conflict, are located in Adjumani, Arua, Lamwo, Moyo and Yumbe districts.

- Due to unfavourable weather conditions, over 70 percent of arable land was affected by drought in the southwestern and northern districts; particularly in the Karamoja region, where sorghum and millet are predominantly grown. As a result, crop development has been poor and harvesting delayed by one month.

- In pastoral areas of the cattle corridor – a broad zone stretching from southwestern to northeastern Uganda dominated by pastoral rangelands – and Karamoja region, rangeland conditions are poorer than usual, as water availability is limited due to consecutive seasons of below-average rainfall. Conflict in South Sudan and drought in Kenya drive massive movements of pastoralists and their livestock, resulting in overgrazing and stressing local resources.

- FAW has affected 60 districts and threatens the upcoming cereal harvest in December 2017. The pest has already adversely affected yields, particularly maize, in localized areas.

- Since July 2016, the Government has allocated land to refugees for cultivation. For refugees in the northeast of the country, the first season harvests have become available for consumption. However, accessibility issues to key agricultural inputs meant that many communities were unable to plant – particularly those arriving after December 2016. Consequently, harvests are insufficient to replenish household stocks and many refugees remain reliant on humanitarian aid.

Potential impact

- As conflict is likely to continue in South Sudan, displacement numbers are expected to increase. Currently, refugees are classified as Stressed (IPC Phase 2), but will likely rise to Crisis (IPC Phase 3) levels, if humanitarian assistance activities are not scaled up.

- Crop production is projected to be below-average due to insufficient rainfall and FAW infestations. In the Karamoja region, Stressed (IPC Phase 2) conditions are likely in Napak, Kaabong and Moroto districts from September 2017 onwards, when crops of the delayed harvest become available. Stocks, however, are likely to be depleted earlier than usual due to the below-average outputs resulting in an early onset of the lean season.

Recommended early actions

The following initiatives should be considered for the period of October–December 2017:

- conduct an assessment on the livelihood context and situation of refugees and host communities;
- provide livelihood support (e.g. vegetable or home-gardening cultivation kits) to both refugees with access to land and host communities to improve food security and access to livelihoods;
- support vulnerable pastoral households with livestock vaccinations and health treatments;
- implement cash-for-work initiatives targeting rehabilitation of agriculture infrastructures and assets (such as the desilting of water catchments and construction of new valley tanks);
- raise awareness of FAW through media communications and printed materials; and
- train plant protection staff on pest identification, yield loss assessments, management options, integrated pest management capacity enhancement and safe use of pesticides.
Drought and possible severe winter conditions (dzud)

1 Risk overview

- High temperatures coupled with a prolonged drought affected large swathes of agricultural land and pasture rangelands across Mongolia. The main cereal-producing areas located in the central and eastern parts of the country, including the provinces of Bulgan, Tov, southern parts of Selenge, Khentii and Dornod are of particular concern.
- Almost a third of the Mongolian population are herders, with much of the country’s food supply dependent on their produce. Accordingly, the autumn harvest is critical for the nation’s economy and for building up fodder reserves to sustain livestock through the winter months. With the drought potentially leading to crop failures, semi-nomadic herders may harvest insufficient fodder to help sustain their animals through the country’s notoriously harsh winter/spring months.
- As of late July 2017, an estimated 85 percent of the country experienced drought-like conditions, which raised serious concerns for the autumn harvest. Cereal production for 2017 is officially forecasted at 259,000 tonnes, a 45 percent decrease from the 2016 output and 40 percent below the previous five-year average, reflecting expectations of the sharply reduced yields.
- As of August 2017, Mongolia’s Ministry of Agriculture and Industry has suspended grain exports as a result of over one-third of farmland suffering the consequences of the drought.

2 Potential impact

- With the drought nearly halving the 2017 cereal output and affecting rangeland regeneration, this presents a serious risk for the livestock sector during the winter months. Herders’ ability to carry their animals through the winter period is likely to be compromised due to the limited availability of fodder in drought-affected areas.
- Furthermore, following a drought period, Mongolia frequently experiences particularly harsh winter and spring conditions known as ‘dzud’, characterized by very low temperatures and heavy snowfalls. Dzud winters often result in high livestock mortality due to the extreme cold and the unavailability of pasture, which can negatively affect the economy and lead to food insecurity.
- Wheat import requirements in 2017/18 are likely to increase sharply because of the drought. Forecasts estimate cereal imports to reach 260,000 tonnes in the 2017/18 marketing year – four times higher than the 2016/2017 import of 81,000 tonnes. Furthermore, a deficit of over 405,000 tonnes of hay and 23,000 tonnes of animal fodder is required to support herders through the winter/spring months.

3 Recommended early actions

The following actions should be considered for the livestock sector, if harvests are sub-optimal and a potential dzud comes into fruition:

- preposition hay and fodder feed;
- promote herders to create a winter fodder reserve using locally available natural sources and by-products;
- support vulnerable herder households with livestock vaccinations and health treatments;
- commercial livestock destocking using the FAO Livestock Emergencies Guidelines and Standards;
- strengthen livestock disease surveillance and control operations; and
- closely monitor developments to ensure contingency plans that can mitigate possible negative impacts are in place.
CENTRAL AFRICAN REPUBLIC

Conflict driving displacement

1 Risk overview

- Inter-communal violence is escalating and armed militias are targeting civilians, humanitarian actors and peacekeepers in southeastern and northwestern areas of the country. New wave of violence by armed groups pushed civilians to flee into the Democratic Republic of the Congo (around 482,000 Central African refugees are sheltered in Cameroon, the Democratic Republic of the Congo, Chad and Congo).

- As of July 2017, the ‘Commission de Mouvement des Populations’ in the Central African Republic reported the number of IDPs in the country at 600,000, demonstrating an increase of 11 percent from the June 2017 figures. The increase, mainly observed in Basse Kotto, Haut Mbomou, Nana Gribizi, Ouham and Ouham-Pendé, is primarily related to the escalation of fighting since June.

- The spread of violence further leads to internal and external displacement as well as food insecurity. Tensions have hampered the delivery of key humanitarian assistance during the agricultural season (first cycle). In February 2017, 1.1 million people were estimated to be in Crisis (IPC Phase 3) and Emergency (IPC Phase 4), excluding Nana Gribizi and Bangui.

- Three consecutive years of reduced harvests, compounded by access constraints due to market disruptions and declining purchasing power, resulted in an alarming food security situation.

- Although favourable prospects for 2017 crop production were reported, the recent resurgence of conflict in the southeastern part of the country is hindering farming activities, market functioning and humanitarian assistance as well as forcing more people to flee their lands.

- IDPs and host communities are mainly relying on humanitarian assistance to access food, which was considerably reduced due to access restriction.

2 Potential impact

- The food security and nutrition conditions are projected to remain precarious due to persistent fighting, low purchasing power and limited access to livelihood activities for the displaced populations and host families. Host communities are expected to continue facing Crisis (IPC Phase 3) or Emergency (IPC Phase 4) conditions during the reporting period.

- The ongoing security situation in areas around Bangassou, Batangafo, Bria, Kaga-Bandoro, Niem and Zemio is likely to continue disrupting livelihoods, the functioning of markets and humanitarian access to IDPs and host communities in these areas.

3 Recommended early actions

To support the most affected communities to restore their livelihoods and ensure access to food, the following actions are recommended:

- support a coordinated food security analysis and monitoring to ensure timely assistance to the most vulnerable households;

- provide livelihood support (e.g., home gardening, poultry, tuber crops—sweet potatoes, cassava) to IDPs and host communities to improve food security, strengthen food capacity production and generate incomes;

- support the rehabilitation of infrastructure (post-harvest storage, value chain transformation small equipment [e.g., mills], livestock, market facilities, etc.) and ensure a better animal health coverage (especially basic immunizations) during millet and rainfed-rice harvest season; and

- support and strengthen existing dialogue platforms between pastoralists and farmers to reduce conflict prior to livestock migration season.
Displacement and deteriorating food security

1 Risk overview

- The food security situation continues to deteriorate in Chad due to a multitude of factors including conflict and instability in neighbouring countries. The situation is further compounded by poor terms of trade for pastoralists, chronic poverty and low economic development and climate variability.
- As of July 2017, an estimated 897,500 people are facing Crisis (CH Phase 3) and Emergency (CH Phase 4) conditions, a 58 percent increase from March 2017. More than half a million of those food insecure are returnees, refugees and IDPs.
- Although the country overall has experienced a good 2016/17 harvest, this has not been the case in Bahr el-Ghazal, Lac, Kanem, Wadi Fira and Tandjile due to insecurity and depletion of food stocks, early pastoral lean season and reduced household purchasing power due to drop in animal prices. Insufficient rains in the Sahelian zone affected grazing resources and lowered water points, resulting in a deterioration of livestock conditions with increased mortality.
- Planting of the 2017 cereal crops began in most parts of the country under favourable conditions, with an expected average October harvest. However, localized floods in the southern and central regions of the country, which have destroyed more than 2,500 ha of crops, could hamper the initial expectation of a good 2017 agro-pastoral campaign.
- Furthermore, a cholera outbreak in the east was reported, with more than 500 cases inSilal and Salamat regions with 15 percent lethal cases.
- Global drop in oil prices over the past years has depleted national budgetary resources, which depend heavily on oil production. This is further compounded by the socio-economic situation in the country.

2 Potential impact

- With an expected average October harvest, households are expected to increase their food stocks through the end of the year. However, in the Lac region and areas where massive displacement is ongoing, households are likely to face Crisis (CH Phase 3) conditions.
- If conflict escalates in neighbouring countries, Chad is expected to host more refugees. According to UNHCR, over 400,000 refugees and asylum-seekers are living in the country. It is likely that the arrival of additional people will affect host communities’ capacity to cope with weather-related and socio-economic pressures.
- Economic constraints leading to reductions of government social protection schemes combined with food price increases are likely to affect the purchasing power of vulnerable people.

3 Recommended early actions

To support agricultural activities and avoid the further deterioration of the food security situation, the following recommended initiatives should be considered:

- support the harvest season from September to November by improving value chain approaches including post-harvest management, storage, food processing and marketing;
- continue to provide livelihood support to the most vulnerable communities including refugees, returnees and IDPs through provision of cash, vegetable and home-gardening cultivation kits and small ruminant/poultry kits;
- support vulnerable pastoral households through vaccination campaigns and destocking activities in order to maintain livestock health and herder’s purchasing power;
- monitor the cholera outbreak and its impact on people’s livelihoods; and
- complete the analysis of the flood impact (areas and affected households).
Hurricanes

1 Risk overview

➢ The 2017 Atlantic hurricane season was considered as the most destructive since 2005 by the National Hurricane Center. It has featured Hurricane Harvey – the first major hurricane to make landfall in the contiguous United States since Hurricane Wilma – and Hurricane Irma – the strongest hurricane ever to form in the Atlantic Ocean outside of the Gulf of Mexico and Caribbean Sea.

➢ In August 2017, the Tropical Storm Risk (TSR) forecasted slightly above-normal activity for the Atlantic hurricane season. The probability for a near-normal or above-normal activity was forecasted at 86 percent for the 2017 season. Furthermore, TSR anticipated a range of 14-19 storms, 5-9 hurricanes and 2-5 major hurricanes for the same period.

➢ Hurricane Irma, a Category 5 hurricane, made landfall on the 30 August and impacted several Caribbean Islands (namely, Anguilla, Antigua, Barbuda, the British Virgin Islands, St Martin and Turks and Caicos). Hurricane Irma caused widespread and catastrophic damage, bringing storm surge, life-threatening winds and heavy rains, particularly in parts of the northeastern Caribbean and parts of Florida.

➢ Following Irma, the Category 4 Hurricane Jose reached its intensity on 8 September, threatening the Lesser Antilles within days of catastrophic damage by Hurricane Irma, especially in Barbuda, which was 95 percent destroyed by Hurricane Irma.

➢ As of 20 September, the formation of Category 5 Hurricane Maria presented an additional threat to the region in under four weeks. The Hurricane made landfall along Puerto Rico and the northeastern coast of the Dominican Republic. Additionally, heavy rain, strong winds and storm surge could also affect Turks and Caicos Islands and the Bahamas in the third week of September.

2 Potential impact

➢ In Barbuda and Antigua, preliminary discussions and assessments indicate that Hurricane Irma destroyed standing crops and agricultural infrastructure. The livestock sector was also affected with reports of animal losses (i.e. cattle, goats, pig and poultry) as well as the destruction of shelter facilities. Additional heavy rains could cause mudslides and flash floods and might slow recovery of these islands.

➢ In Cuba, early assessments from the Government indicate medium to long-term needs in the agriculture sector, as many vital crops in the affected provinces were lost to the storm. More than 2.1 million people have been targeted for assistance.

3 Recommended early actions

To support communities impacted by this intense hurricane season, the following early actions are recommended:

• provide immediate livelihoods assistance to ensure that communities struck by natural disasters are able to protect and recover their livelihoods;

• support local authorities to manage the response and assess needs to restore production activities in the affected areas with local resources; and

• support fishing communities with fishing kits to support income generating activities.
Drought, floods and cyclones

1 Risk overview

- La Niña is the cooling of sea surface temperatures in the tropical Pacific, which occurs roughly every three to five years, lasting from six to 24 months.
- On 14 September, the Climate Prediction Center and International Research Institute for Climate and Society projected an increasing chance (≈55-60%) of a weak La Niña forming during the 2017 – 2018 Northern Hemisphere Winter. Currently, the El Niño Southern Oscillation (ENSO) Alert System status is on La Niña Watch. However, the Australian Bureau of Meteorology continue to indicate that ENSO neutral conditions will remain until the end of 2017.
- While the climatic phenomenon usually peaks in intensity between October and January, changes to climatic patterns and their related impacts on food security and agriculture can occur before and after the peak.

2 Potential impact

- Consequences of La Niña on agriculture and food security can be both positive and negative. The positive effects derive from the increased likelihood of above-average rainfall which could improve pasture and crop yields. Simultaneously, above-average rainfall can also result in flooding, which can cause negative impacts such as landslides, crop damage and livestock morbidity and/or mortality.
- In Southern Africa, La Niña is generally associated with increased probability of above-average rainfall from around November to April, which corresponds to the main cropping season for most countries in the region.
- Localized areas of East Africa are mostly affected by drier-than-normal conditions during La Niña events, particularly from November to March. This would particularly occur in regions of Ethiopia, South Sudan, Somalia and Kenya. Localized flooding can also occur in East Africa, such as northern Ethiopia, central and northern Sudan. In the Sahel region, La Niña is mainly associated with an increased likelihood of above-average rainfall.
- In Central America, the Caribbean and northern South America, La Niña in these areas is associated with localized above-average precipitation from June to March of the following year.
- In much of South and Southeast Asia, La Niña increases the probability of heavier rainfall. Conversely, across various countries in Central Asia, La Niña can instigate drier-than-average conditions from January to May.
- In the Pacific, consequences would vary widely. One of the main potential benefits however, would be the reduced likelihood of hurricanes in the northeast Pacific region.

3 Recommended early actions

At the global level:
- strengthen the coordination and preparedness capacity of the international community, through the implementation of the inter-agency ENSO Standard Operating Procedures, which will guide collective early action in relation to ENSO events; and
- increase joint monitoring and analysis of potential La Niña impacts.

At the regional and national level:
- increase monitoring of climatic forecasts;
- ensure La Niña response, contingency or preparedness plans are updated or developed to cater for the current context; and
- in areas likely to be affected by drier than average conditions:
  - review the actual and likely availability of drought-tolerant and early maturing varieties of crops on the international market for potential distribution; and
- foresee the strengthening of the monitoring of animal pests and diseases and the provision of animal health support to herders.
- In areas likely to be affected by wetter than average conditions:
  - review the actual and likely availability of flood-tolerant varieties of crops;
  - Ensure proper shelter, veterinary care and adequate livestock feed in the most affected areas; and
- Promote the use of saline-tolerant seed varieties, improved agricultural practices and better water and embankment management.

**La Niña**

**Risk:** On watch

**IMPACT**

- Critical
- Very unlikely
- Negligible
- Very likely

**Likelihood**

- On watch
- Very unlikely
- Very likely
HISTORICAL LA NIÑA TRENDS

CLIMATE SEASONS

- **Wet**
- **Dry**

Source: NWS/NCEP Climate Prediction Center
**List of acronyms**

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<tr>
<th>Acronym</th>
<th>Description</th>
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<tr>
<td>CH</td>
<td>Cadre Harmonisé</td>
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<tr>
<td>ENSO</td>
<td>El Niño Southern Oscillation</td>
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<td>EWEA</td>
<td>Early Warning - Early Action</td>
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<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<td>FCC-EMPRES</td>
<td>Food Chain Crisis - Emergency Prevention System</td>
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<td>FEWS NET</td>
<td>Famine Early Warning Systems Network</td>
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<td>FMD</td>
<td>Foot and Mouth Disease</td>
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<td>FSNAU</td>
<td>Food Security and Nutrition Analysis Unit - Somalia</td>
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<td>GIEWS</td>
<td>Global Information and Early Warning System</td>
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<td>IDP</td>
<td>Internally displaced person</td>
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<td>IPC</td>
<td>Integrated Food Security Phase Classification</td>
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<td>OCHA</td>
<td>Office for the Coordination of Humanitarian Affairs</td>
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<td>TSR</td>
<td>Tropical Storm Risk</td>
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<td>UNHCR</td>
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<td>GHACOF</td>
<td>Greater Horn of Africa Climate Outlook Forum</td>
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<td>FAW</td>
<td>Fall armyworm</td>
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Sources of information and references

The report consolidates information provided by GIEWS, FCC-EMPRES and IPC, and where necessary external sources of information, highlighting the most urgent global situations to alert decision-makers at all levels of the Organization. The analytical basis for the prioritisation of countries and the major sources of information and data presented in the report are three main groups of datasets:

- Countries requiring external assistance and low-Income food-deficit countries’ food security situation (Source: Crop Prospects and Food Situation Bulletin, GIEWS, http://www.fao.org/giews/reports/crop-prospects/en);
- Food chain crisis threats forecasting at country and regional levels (Source: Food Chain Crisis early warning bulletin, FCC-EMPRES, http://www.fao.org/food-chain-crisis/home/en); and
- Results of the IPC Acute Food Insecurity (http://www.ipcinfo.org); and Cadre Harmonisé (http://www.agrhymet.ne/).

Additional information and data presented in the report are consolidated from the following sources:

- FAO sources
  - Situation reports and publications by the Emergency and Rehabilitation Division (http://www.fao.org/emergencies/en)
  - Resilience index measurement and analysis reports (http://www.fao.org/resilience/background/tools/rima/it)

- External sources
  - Reports and bulletins by the United Nations agencies, in particular OCHA (http://www.unocha.org) and the World Food Programme’s Vulnerability Analysis and Mapping Unit (http://vam.wfp.org).
  - Index for Risk Management (http://www.inform-index.org)
  - FEWSNET (http://www.fews.net)
  - International Research Institute for Climate and Society (http://iri.columbia.edu)
GLOBAL MAP OF COUNTRIES WITH HUMANITARIAN RESPONSE PLANS OR EMERGENCY PLANS