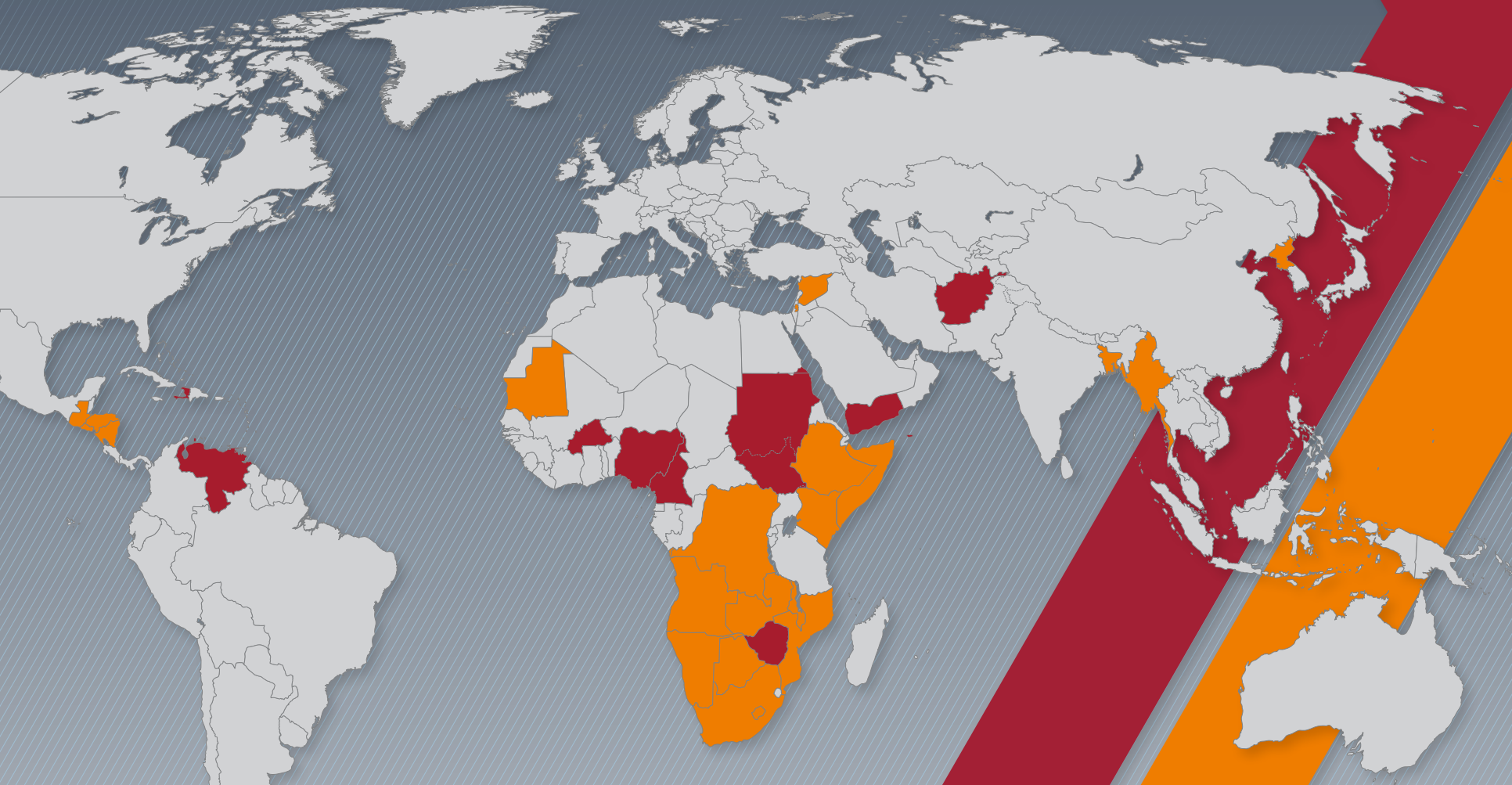




Food and Agriculture
Organization of the
United Nations

Early Warning Early Action report on food security and agriculture

2019
April-June



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Overview

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

The **Early Warning Early Action (EWEA) report on food security and agriculture** is produced by the Food and Agriculture Organization of the United Nations (FAO). It provides a quarterly forward-looking analysis of major disaster risks to food security and agriculture, specifically highlighting:

- potential new emergencies resulting from imminent disaster threats
- new developments in countries already affected by protracted crises which are likely to cause a further deterioration of food insecurity

This report is part of FAO's efforts to systematically link early warnings to anticipatory actions. By providing specific early action recommendations for each country, the report aims to prompt FAO and partners to proactively mitigate and/or prevent disasters before they start to adversely impact food security.

High risk

Countries are categorized as "high risk" when there is a high likelihood of a new emergency or a significant deterioration of the current situation with potentially severe effects on agriculture and food security.

On watch

Countries categorized as "on watch" instead have a comparatively more moderate likelihood and/or potential impact, requiring close monitoring.

This report represents a summary and a prioritization of analysis provided by FAO's corporate and joint multi-agency information and early warning systems:

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

In addition to these, a number of other external sources are consulted. The list of sources is available on page vii.

Countries with ongoing emergency response efforts are not included in the report, unless there are signs of potential significant deterioration. An overview of countries worldwide with humanitarian response plans or emergency plans is provided on page vi.

More details on the risk ranking methodology and the early action recommendations are provided on page ii.

The Global Report on Food Crises 2019 is now available. Around 113 million people in 53 countries faced acute food insecurity in 2018. Urgent humanitarian assistance is required to save lives and protect livelihoods. For more information go to: www.fsinplatform.org/sites/default/files/resources/files/GRFC_2019-Full_Report.pdf

Methodology

Risk value

High risk

FAO and partners should start implementing early actions on a no-regrets basis

On watch

FAO should strengthen corporate monitoring, preparedness and plan for the implementation of certain low cost early actions

The countries and regions flagged in this report are selected through a consultative process led by early warning focal points from the EWEA, GIEWS, FCC-EMPRES and IPC teams. The main steps of the process are:

1. Shortlist countries flagged by FAO's corporate early warning systems, IPC and *Cadre Harmonisé*
2. Triangulate risk information with other datasets and external early warning systems
3. Verify and rank the final list of risks based on the following three 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 classified into five levels (negligible, minor, moderate, severe and critical). The impact is analysed both in terms of magnitude (the number of potentially affected people and/or geographical extent of the impact on agriculture, livelihoods and food security) and severity (the gravity of the impact on agriculture, livelihoods and food security, especially in relation to pre-existing vulnerability and food insecurity).
 - **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). The Index for Risk Management (INFORM) is further applied to measure the coping capacity of a country.

Famine declared and risk of famine

As per IPC guidance, when a new emergency or further deterioration of the situation might lead to an increased risk of famine, this aspect is highlighted in the global risk map and narrative of the report as “risk of famine”. When the occurrence of famine has been declared, this is labelled as “famine declared”.

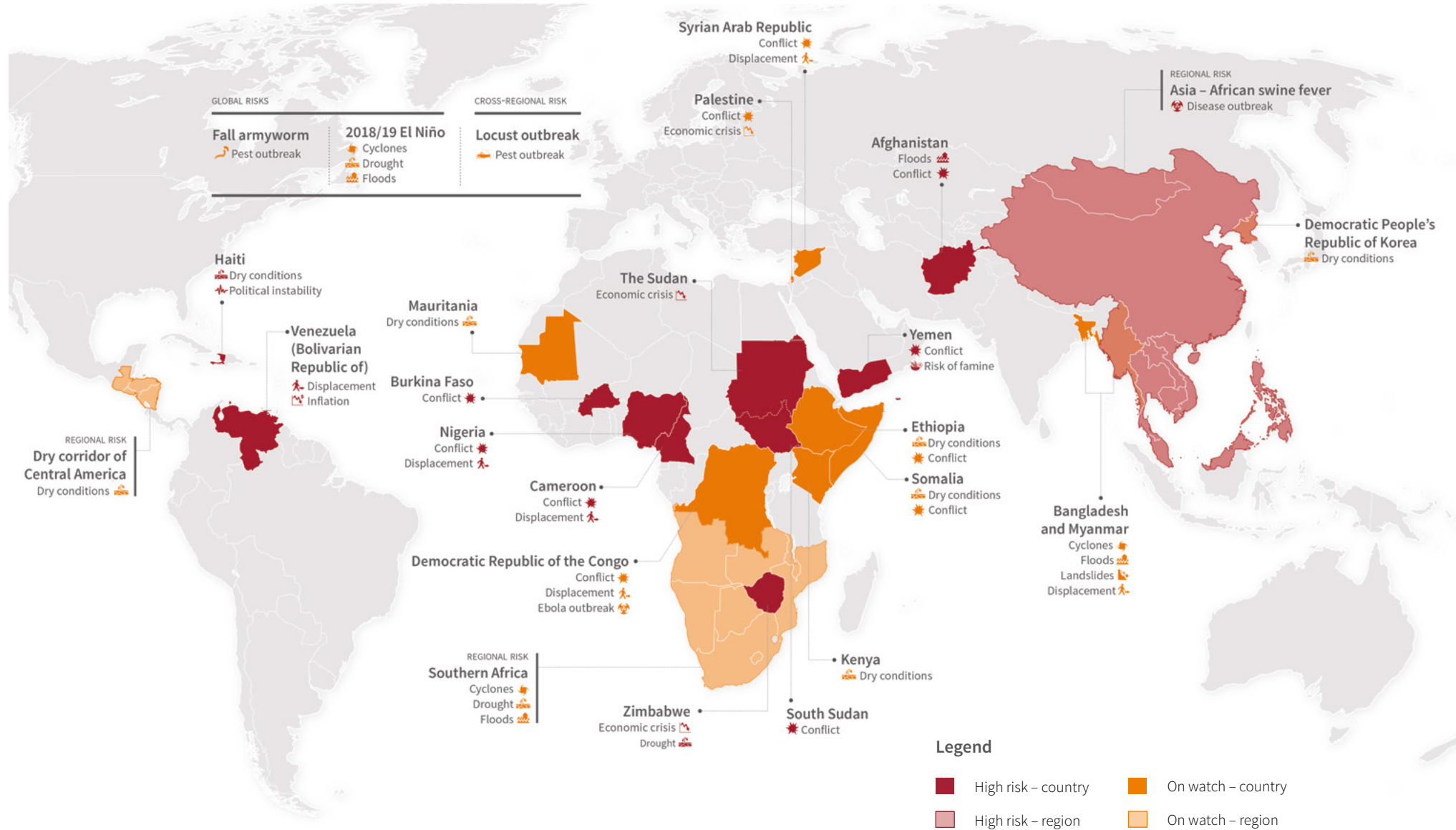
Recommendations for early actions

Early action recommendations are indicated for each risk that is featured in this report. They outline a range 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. The interventions are also sector specific and non-binding in nature. Early actions can vary from activities aiming to protect livelihood assets to planning and preparatory activities. The recommendations are developed by FAO through a consultative process involving technical experts and FAO country, subregional and regional offices.

Global risk map

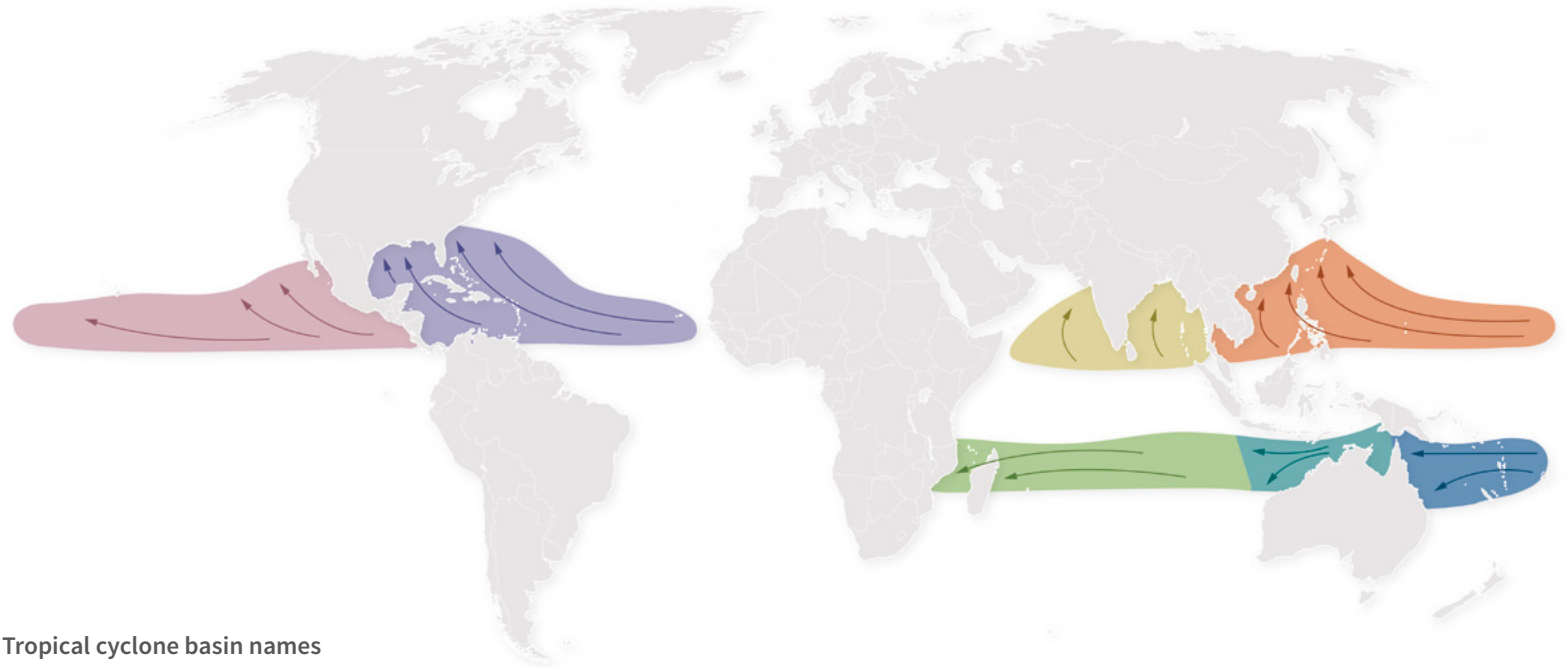
The map on page iii provides a visualization of major disaster risks to food security and agriculture in the indicated reporting period. When a new emergency or deterioration of the current situation is very likely and might have severe impacts, it is indicated as “high risk”. In case of moderate to high likelihood and moderate and 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.

Global risk map: April–June 2019



Cyclone seasonality

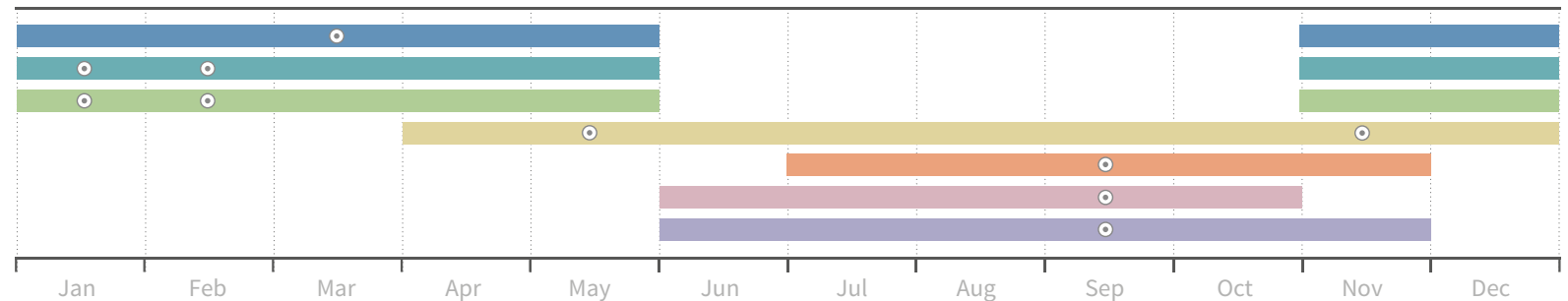
This map provides an overview of the timeline of cyclone formations and their historical tracks. There are seven tropical cyclone basins, with specific peak timings during the calendar year. When available, the seasonal forecast (below- or above-average cyclone activity) is also provided.



Tropical cyclone basin names

- North Atlantic Ocean, the Gulf of Mexico and the Caribbean Sea
- Northeast Pacific basin
- Northwest Pacific basin
- North Indian basin
- Southwest Indian basin
- Southeast Indian/Australian Basin
- Australian/Southwest Pacific basin
- Peak

Seasonality calendar



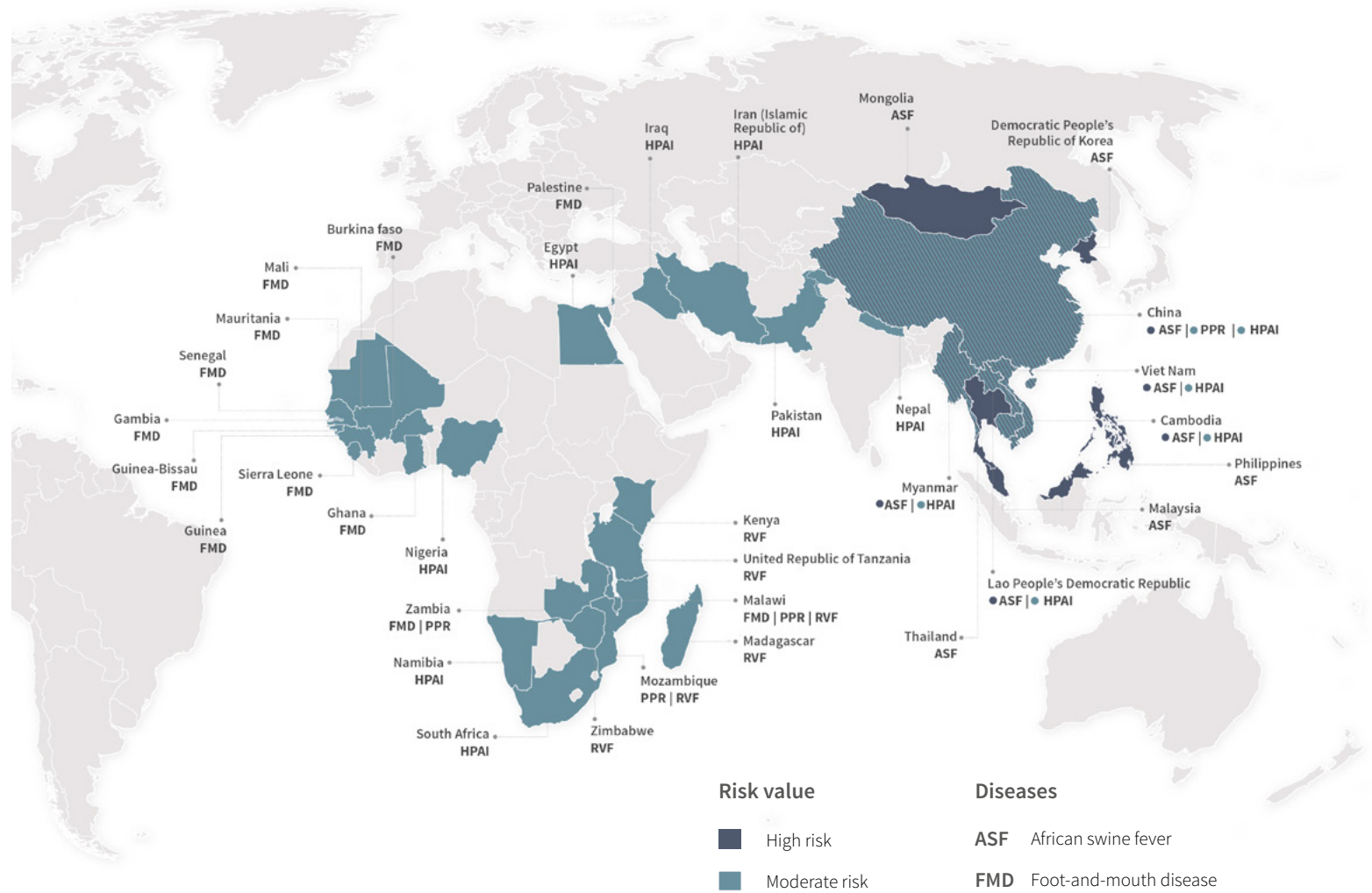
TSR predicts Atlantic hurricane activity in 2019 will be slightly below the long-term norm. However, the uncertainties associated with this outlook are large and the forecast skill at this extended range is historically low.

Animal health risks

This map highlights selected countries facing animal health risks during the reporting period.

Countries are only highlighted if the risk has the potential to impact food security.*

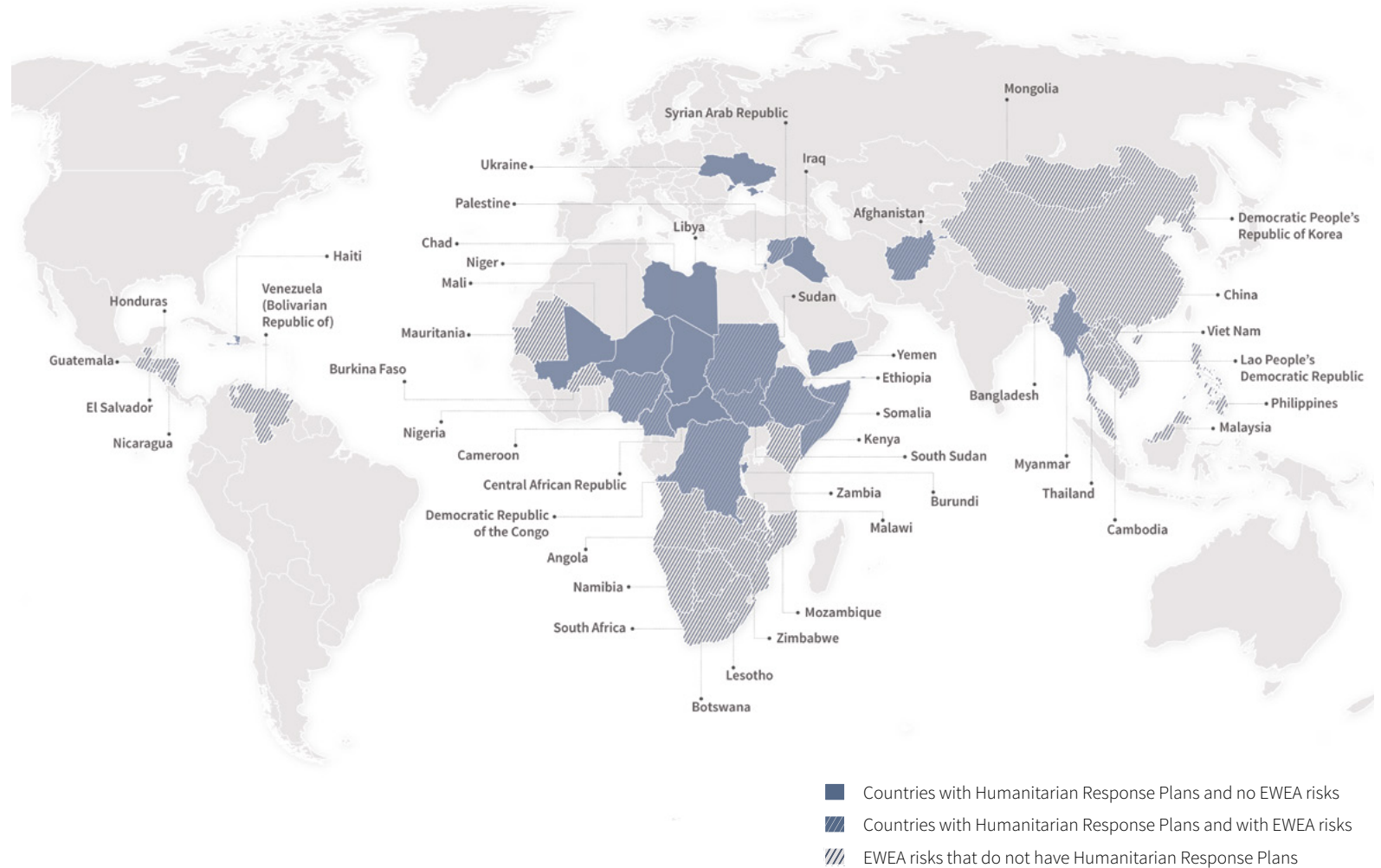
For a complete list of countries and threats, and more detailed information see:
www.fao.org/food-chain-crisis/early-warning-bulletin/en/



*The information used to compile this map was extracted from the Food Chain Crisis Management Framework (FCC) Early Warning Bulletin for the period April-June 2019. The information was compiled as of 25 March 2019.

EWEA risks within the wider humanitarian context

The EWEA report exclusively highlights new emergencies in food and agriculture and ongoing crises in which a potential significant deterioration is likely. The report does not cover ongoing crises with no indication of an upcoming deterioration. This map shows countries flagged by the report compared to countries with Humanitarian Response Plans in 2019, in which we do not foresee a marked deterioration.



Source: Global Humanitarian Overview 2019, OCHA



Sources of information

This report consolidates information provided by GIEWS, FCC-EMPRES and IPC, and external sources of information. The analytical basis for the prioritization 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 the food security situation of low-income food-deficit countries*
- forecasting threats to the food chain affecting food security in countries and regions**
- IPC and *Cadre Harmonisé* acute food security analysis

Additional information and data presented in the report are consolidated from the following external sources (including but not limited to):

- reports and bulletins by agencies of the United Nations (UN), in particular OCHA, Office of the United Nations High Commissioner for Refugees (UNHCR), United Nations Children's Fund (UNICEF), World Food Programme's (WFP) Vulnerability Analysis and Mapping Unit and the World Meteorological Organization (WMO)
- updates from external sources including Index for Risk Management (INFORM), Famine Early Warning Systems Network (FEWS NET), International Research Institute for Climate and Society – Columbia University (IRI), Reliefweb, local and international media

*Crop Prospects and Food Situation Bulletin, and Crop and Food Security Assessment Missions (CFSAM), GIEWS

**Food Chain Crisis early warning bulletin, FCC-EMPRES, Animal Production and Health Early Warning Systems Team

The long-standing conflict in Yemen has resulted in a severe humanitarian crisis, with some 24 million people estimated to be in need of humanitarian assistance. Given the fragile political situation, the potential for the conflict to intensify remains. This would have a serious impact on food security, further damaging the economy and impeding access to food aid.

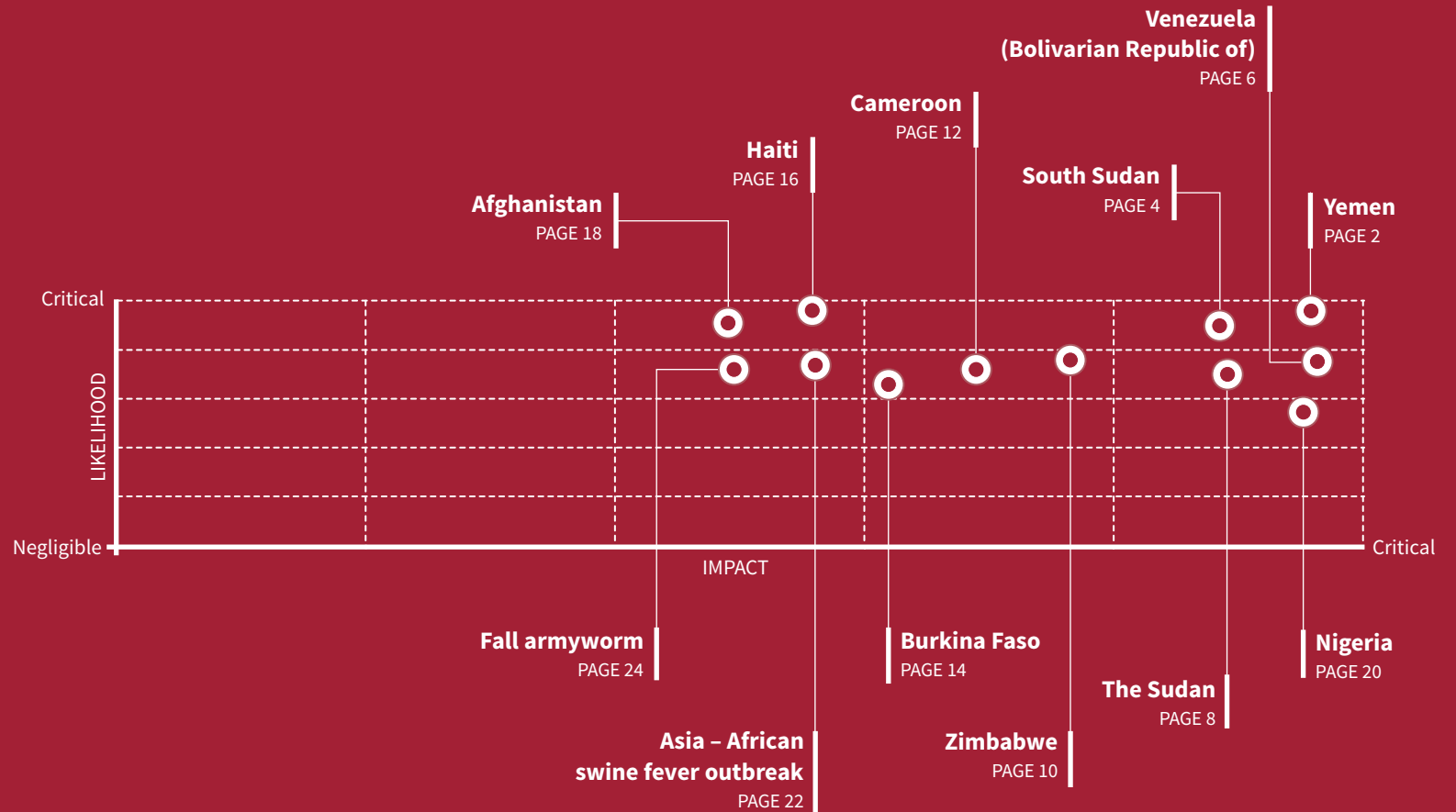


High risk

The matrix provides an overview of the ranking of risks featured in this report. The risks are prioritized based on the severity, likelihood and magnitude of their impact, while also balanced against the countries' individual coping capacity.

In order of intensity, for the period April–June 2019, the **high risk** section includes:


- Yemen
- South Sudan
- Venezuela (Bolivarian Republic of)
- The Sudan
- Zimbabwe
- Cameroon
- Burkina Faso
- Haiti
- Afghanistan
- Nigeria
- African swine fever outbreak in Asia
- Fall armyworm




Yemen

Deteriorating humanitarian situation is fuelling the risk of famine

 With Humanitarian Food Assistance, **15.9 million** people (**53 percent** of the total population) are food insecure

 In the absence of Humanitarian Food Assistance, **20.1 million** people (**67 percent** of the total population) would be facing severe food insecurity

 **USD 2.6 billion** in funding in 2019, against the **USD 4.2 billion** target

 Over **440 000** suspected cholera cases since January 2018, with **606** associated deaths

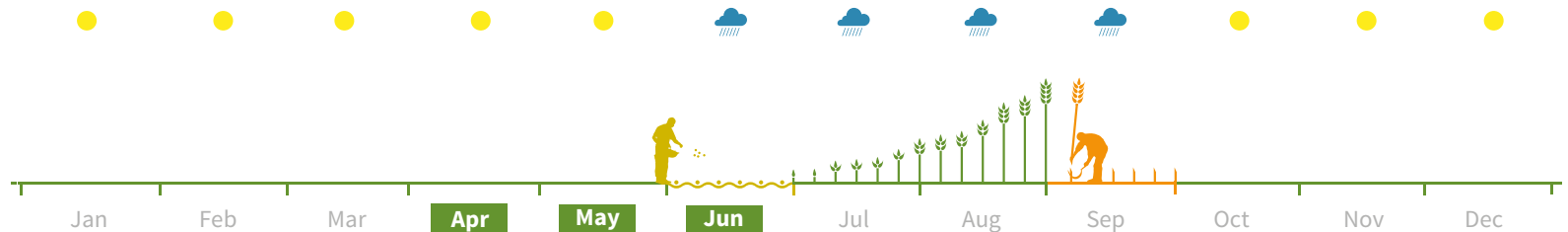
Risk overview

- The long-standing conflict in Yemen has resulted in a severe humanitarian crisis. Some 24 million people are estimated to be in need of humanitarian assistance as of the end of February 2019, and more than 3.9 million people have become displaced over the last three years.
- According to the latest IPC report issued in December 2018, while accounting for the Humanitarian Food Assistance levels, 17 percent of the population analysed in Yemen (5 million people) are in Emergency (IPC Phase 4) and 36 percent (10.8 million people) in Crisis (IPC Phase 3). Of greatest concern are the 65 000 people in Catastrophe (IPC Phase 5). In total, 15.9 million people (53 percent of the total population) are facing severe food insecurity (IPC Phase 3 and above) levels of food insecurity.
- In mid-February 2019, warring factions agreed to the first stage of a withdrawal from Al Hudaydah. By the end of February, the United Nations (UN) regained access to the Red Sea Mills – an important food storage and distribution hub.
- Resource partners pledged a combined USD 2.6 billion for the UN's 2019 humanitarian plan for Yemen at the end of February, against the USD 4.2 billion target of the UN appeal.
- Prices volatility and the depreciation of the local Yemeni rial against foreign currencies are affecting market functioning and weakening the ability to purchase imports. The national monthly average unofficial exchange rate of the Yemeni rial with the

- United States dollar in January 2019 registered an increase of 16 percent compared with January 2018.
- Breeding of desert locust continues in areas of eastern Yemen. From there, adults and at least one swarm have moved to cropping areas in Wadi Hadramout. The agriculture season is upcoming, with sowing beginning typically in mid-April through June and growing season in July across the different agro-ecological zones.
- Since the beginning of 2019, the cholera outbreak in Yemen has flared up again, with *Medecins Sans Frontieres* reporting an increase from 140 to 2 000 patients per week since January.

Potential impact

- The ceasefire is considered to be fragile and its implementation remains uncertain. The continued conflict early in the year in Hajjah, Al Hudaydah and Sa'ada governorates is expanding to new districts. Given the fragile political situation, the potential for the conflict to intensify near the city of Al Hudaydah remains. As Al Hudaydah is home to a major port, deterioration could have a very severe impact on food security, further damaging the economy and impeding access to food aid.
- IPC estimates that in the absence of Humanitarian Food Assistance, about 20.1 million people (67 percent of the total population) would be facing severe food insecurity (IPC Phase 3 and above). This would include 240 000 people in Catastrophe (IPC Phase 5).



Early action is required to prevent further negative effects of conflict intensification and support the upcoming planting season.

- Due to the protracted conflict, the economic situation of Yemen is likely to continue to deteriorate. This could result in further price shocks for essential food and non-food commodities, and therefore could further compromise access to food.
- As vegetation dries out in eastern Yemen, additional desert locust populations are expected to arrive in Hadramout and central interior areas, and breed if rains fall, which could affect the upcoming agricultural season.

Recommended early actions

Advocacy

- Advocate support for market functioning and the functioning of financial institutions.

Assessment

- Continue monitoring the food security and nutrition situation, given the high volatility of the context and expected evolution in terms of conflict.
- Strengthen the assessment of agricultural production.

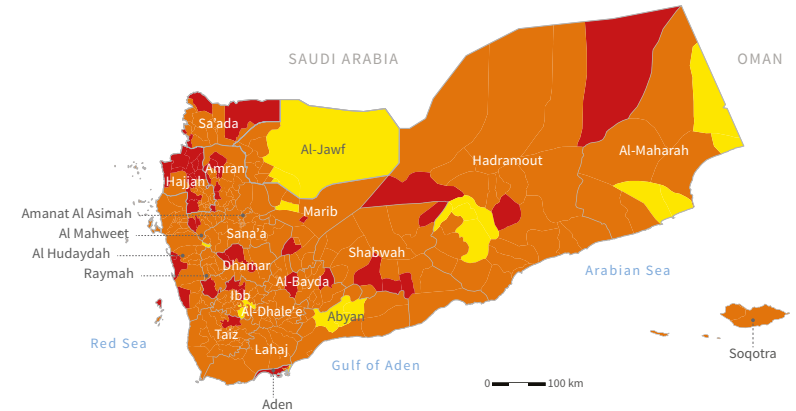
Crops

- Scale up the provision of solar supply systems (pumps and supply lines) for farming activities to overcome the high cost and scarcity of fuel.
- Provide agricultural inputs to vulnerable farmers and communities that have been repeatedly displaced ahead of the planting season in June.

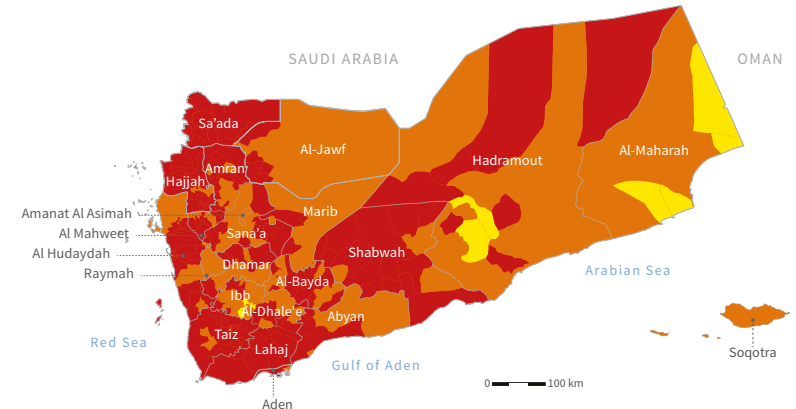
Social protection

- Strengthen and provide social protection and economic support to vulnerable households by setting up safety nets, access to finance for income-generating activities, or unconditional cash or cash+ transfers.








Acute food insecurity situation in the presence of Humanitarian Food Assistance (December 2018–January 2019)



Acute food insecurity situation in the absence of Humanitarian Food Assistance (December 2018–January 2019)



IPC phase classification

 Famine	 Crisis	 Minimal	 Insufficient data
 Emergency	 Stressed	 Not analysed	


Source: IPC, December 2018


high risk



South Sudan

Food security situation to deteriorate during the lean season, with 50 000 people expected to be in Catastrophe (IPC Phase 5) by July 2019

 **60 percent** of the population expected to be severely food insecure by July 2019, **50 000** of which in Catastrophe (IPC Phase 5)

 Around **4.14 million** people displaced

 **860 000** children are expected to be acutely malnourished by December 2019

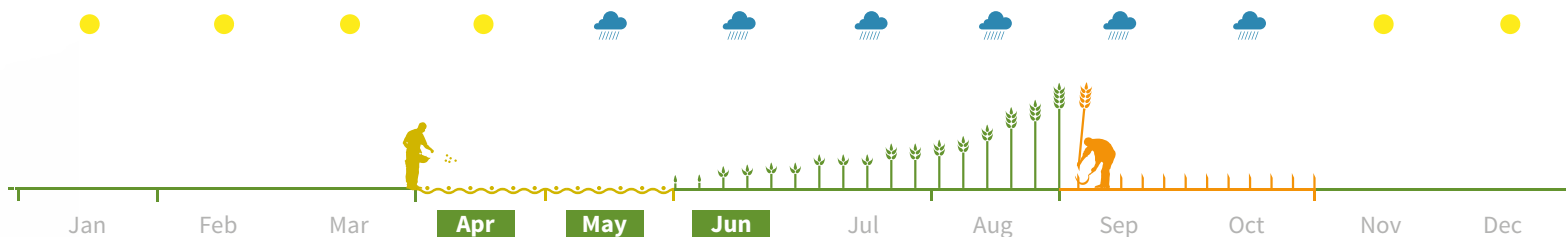
Risk overview

- More than five years of conflict have left the country in a dire humanitarian and macroeconomic situation. Some 1.87 million people are internally displaced, while 2.27 million people have fled to neighbouring countries.
- In January 2019, 6.17 million people were estimated to be food insecure (IPC Phase 3 or above), of whom 1.36 million faced Emergency (IPC Phase 4) and 30 000 people faced Catastrophe (IPC Phase 5). A total of 860 000 children are likely to suffer from acute malnutrition between January–December 2019.
- According to the preliminary findings of the 2018 FAO/WFP CFSAM, the 2018 aggregate cereal production is estimated at about 745 000 tonnes, the smallest recorded output since the start of the conflict in 2013.
- Several types of pests and diseases are infesting crops every year, including fall armyworm. Most farmers resort to traditional practices. Livestock are exposed to many diseases such as haemorrhagic septicaemia, foot-and-mouth disease, sheep and goat pox, *peste des petits ruminants*, etc. The risk of spread of livestock diseases has been amplified by an upsurge in cattle raiding during the dry season.
- Prices of sorghum, maize and wheat declined by 30 to 50 percent in the capital Juba in the second semester of 2018, mainly due to the appreciation of the South Sudanese Pound following the beginning of peace talks in June 2018. However, the pound depreciated in January and February 2019 resulting in price

increases between 15 and 40 percent. Prices in February 2019 were around the same levels as those recorded in February 2018, but above the already exceptionally high levels of two years prior.

Potential impact

- Due to the prolonged conflict, during the upcoming lean season (May–July), 6.87 million people are expected to be food insecure (IPC Phase 3 or above), of whom 1.91 million and 50 000 are expected to be in Emergency (IPC Phase 4) and Catastrophe (IPC Phase 5), respectively. In the total absence of humanitarian assistance, an estimated 7.68 million people will face Crisis (IPC Phase 3) acute food insecurity or worse, with an estimated 260 000 people in Catastrophe (IPC Phase 5) by May 2019. In May–July 2018, an estimated 7.1 million people were projected to face Crisis (IPC Phase 3) or worse acute food insecurity, of whom 155 000 people faced Catastrophe (IPC Phase 5) and 2.3 million Emergency (IPC Phase 4) levels of food insecurity.
- Although no county is expected to be facing extremely critical levels of malnutrition (IPC Phase 5), malnutrition is expected to deteriorate during the lean season (May–August). Some 57 counties are projected to be in IPC Phases 3 and 4 by August 2019.
- Possible returns from the Democratic Republic of the Congo pose the risk of spreading Ebola virus disease.



Early action is required to safeguard agricultural livelihoods and prevent further deterioration of the food security situation during the lean season.



Recommended early actions

Assessment

- Monitor the food security and nutrition situation, particularly in Canal/Pigi, Cueibet and Yirol West, Panyijiar and Rubkona and Panyikang.
- Support surveillance, technical support and extension services on fall armyworm control and management.
- Assess the possibility of establishing state level veterinary laboratories.
- Continue to monitor the risk and potential livelihood implications of an Ebola virus disease outbreak.

Crops

- Distribute agricultural inputs for the main and second season.
- Support measures to mitigate fall armyworm infestation (i.e. trainings through farmer field schools).

Fisheries

- Distribute fishing kits to vulnerable rural dwellers with access to fishing grounds.

Livestock

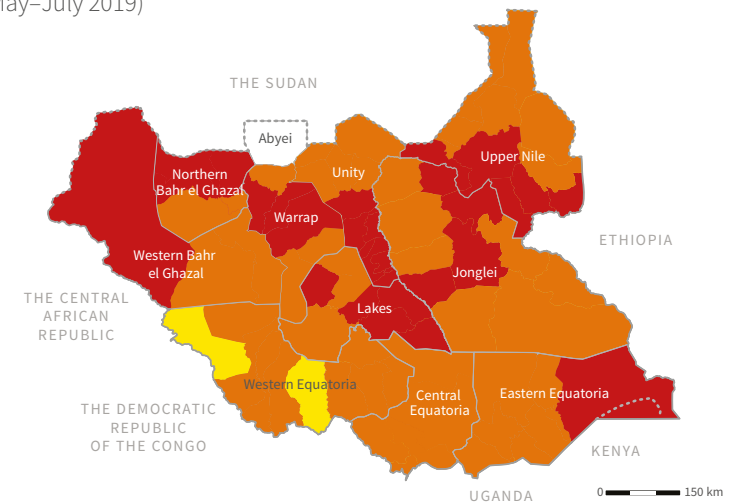
- Safeguard pastoralist assets through livestock vaccinations and treatments.
- Strengthen the solar vaccine livestock network and support training around community animal health services.
- Facilitate dialogue on conflict mitigation for pastoralists engaged in internal livestock migration.
- Support the operationalisation of the Central Veterinary Diagnostic Laboratory.

Partnership and accessibility

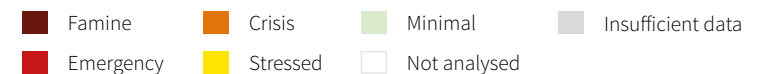
- Increase coordination among United Nations agencies and other stakeholders to maximize the effectiveness of interventions on the ground.

Acute food insecurity situation

(May–July 2019)



IPC phase classification



Source: IPC, February 2019



Venezuela (Bolivarian Republic of)

Instability raises risks to food security and increased emigration

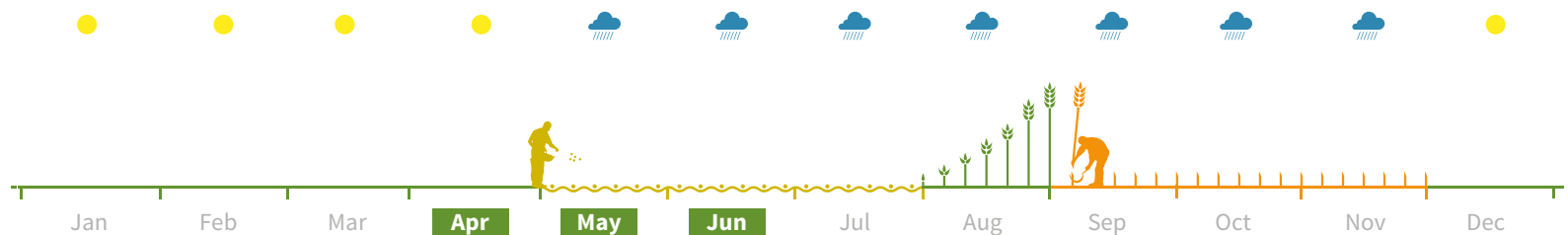
 **2.4 million** people emigrated from Venezuela

 **50 percent** estimated fall in GDP since 2013

Risk overview

- Venezuela (Bolivarian Republic of) is experiencing a severe and protracted economic crisis. The country has been facing hyperinflation since November 2016, and according to the International Monetary Fund, the gross domestic product is projected to decline further in 2019, bringing the cumulative decline since 2013 to over 50 percent. This is mainly driven by plummeting oil production and worsening conditions in the non-oil sector. A collapse in salaries and in the value of the local currency, shortages of food, medicine and basic supplies, the deterioration of health services, education and infrastructure, as well as international sanctions, are heavily affecting the country's population of 30 million.
- The prevalence of undernourishment is increasing. The percentage of undernourished people in the country has tripled – from 3.6 percent in 2013 to 11.7 percent in 2017 (nearly 3.7 million people).
- According to the *Encuesta Nacional De Condiciones De Vida* survey on living conditions released by three Venezuelan universities in 2018, 80 percent of Venezuelan households are food insecure, 90 percent receives an income that is insufficient to buy food, and the country has lost 3.5 years of life expectancy at birth.

- The situation in Venezuela (Bolivarian Republic of) is resulting in a region-wide migration crisis, with an estimated 3.4 million people that have fled to other countries, mainly in South America and the Caribbean. Colombia, which is both a transit and destination country for Venezuelans crossing the border, hosts the highest number of Venezuelan migrants and refugees, with over 1 million people, followed by Peru (506 000), Chile (288 000), Ecuador (221 000), Argentina (130 000) and Brazil (96 000).
- International organizations coordinated by the Office of the United Nations High Commissioner for Refugees (UNHCR) and the International Organization for Migration (IOM) have prepared an Action Plan to support governments in assisting Venezuelan nationals. An appeal for USD 738 million was launched in December 2018 to help neighbouring countries to cope with the influx.
- The United Nations has called to fully observe human rights in the political crisis and to advance in peaceful dialogues between the parties to solve the current situation. In February 2019, the Government of Venezuelan (Bolivarian Republic of) requested the United Nations' technical assistance to purchase food and medicines.
- Despite challenges in accessing the required inputs, agrochemicals and seeds, the yield estimate for maize is higher



The economic crisis, compounded by below-average rainfall potentially affecting the upcoming *Primera* season, call for early actions to mitigate negative impacts on food security.

than the previous year due to favourable weather conditions. However, sorghum production was estimated at 35 000 tonnes compared with 79 000 tonnes in 2017 due to shortages of imported diesel fuel, essential inputs, certified seeds, equipment and machinery. Rice production in 2019 is also expected to have reduced. According to the Venezuelan association of agricultural producers, the agriculture sector covered only 20 percent of national food consumption in 2018.

Potential impact

- In the coming months, the food security situation is not expected to improve and emigration is likely to continue. At the end of 2018, UNHCR and IOM estimated that an additional 2 million people are likely leave the country in 2019.
- The northern part of Venezuela (Bolivarian Republic of) is experiencing below-average rainfall, adding to uncertain patterns in May, when the main cropping season (*Primera*) typically begins. Weather conditions could also be affected by the El Niño phenomenon, which typically increases the probability of dry conditions.



Recommended early actions

Crops and forestry

- Distribute agricultural tools for land preparation in view of the upcoming *Primera* season.
- Strengthen the participatory forest management approach among indigenous communities residing in protected areas in order to improve disaster risk management.

Cross-sectoral

- Strengthen the information systems on food security and disaster risk management with emphasis on family farming.
- Improve technical and institutional capacities for the development of family/community-based agricultural production systems with an agroclimatic risk management approach.
- Design and implement agricultural production units/systems that do not depend on external inputs (seeds, fertilizers and pesticides), and enable the increase and diversification of resilient agricultural production and school feeding.

Food preservation

- Distribute salt to vulnerable indigenous communities to preserve food stocks.



The Sudan

Severe economic challenges could further exacerbate food insecurity

 **5.76 million** people facing Crisis and Emergency (IPC Phase 3 and 4)

 **10–40 percent** increase in staple crops prices

Risk overview

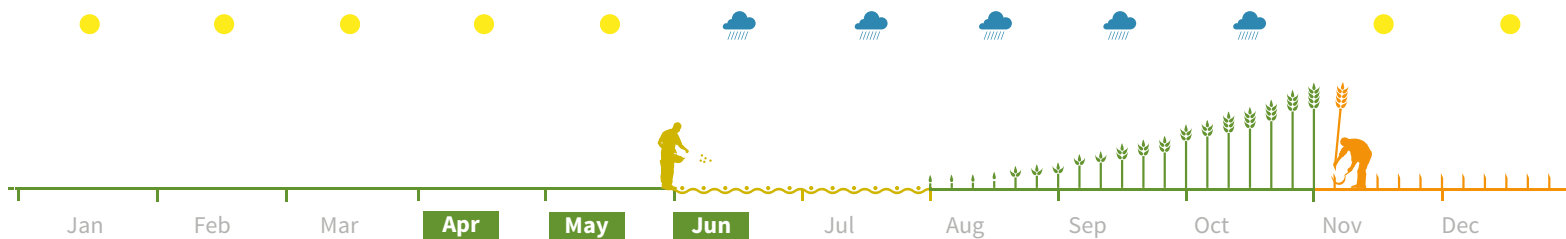
- Since the beginning of 2018, the Sudan has been experiencing an economic crisis triggered by a set of economic restructuring reforms to access foreign currency. The elimination of wheat and flour subsidies in February 2018, coupled with continuous devaluation of the Sudanese pound caused shortages of essential commodities and cash. The economic crisis is disrupting public services, impacting agricultural activities and resulting in dramatic price increases of staple foods.
- Fuel and food costs, high inflation and a shortage of cash in the economy have contributed to public discontent. A series of protests that began occurring in mid-December 2018, and which continued into January 2019, occurred in response to the tripling of the price of bread in Atbara (River Nile State) and quickly spread to Port Sudan (Red Sea State) and the capital Khartoum. On 22 February, President Omar El-Bashir declared a one-year state of emergency and dissolved the government.
- Prices of sorghum and millet unseasonably surged by 15–50 percent between November 2018 and January 2019, following a sharp devaluation of the local currency in October. Prices of coarse grains in January were at near record to record levels and two to three times higher than their year-earlier levels, driven by the significant depreciation of the local currency. Soaring prices of fuel and agricultural inputs inflated transport and production costs, exerting further upward pressure on

food prices. Large segments of the population, including IDPs, are facing severe food access constraints and are struggling to meet their basic needs.

- Between January and March 2019, corresponding to the post-harvest season, more than 1 million people were estimated to be in Emergency (IPC Phase 4) and more than 4.67 million people in Crisis (IPC Phase 3) levels of food insecurity.

Potential impact

- Should the economic situation persist, food prices will likely further rise in 2019. This will continue to constrain food access among the most vulnerable people, who seasonally increase their reliance on markets during the lean season (May–July). As a result, households in several areas of the country are expected to face Crisis (IPC Phase 3) outcomes between February and May 2019.
- According to FEWSNET, Crisis (IPC Phase 3) outcomes are expected in parts of the Blue Nile, Al Gadarif, Greater Darfur, Kassala, North Kordofan, Red Sea, South Kordofan and West Kordofan states between June and September, the lean season in the Sudan.



Spikes in food prices combined with fuel and input shortages may lead to a further deterioration of the food security situation among the most vulnerable people in the Sudan, unless well-targeted early actions are taken to mitigate the effect of these risks on food security.



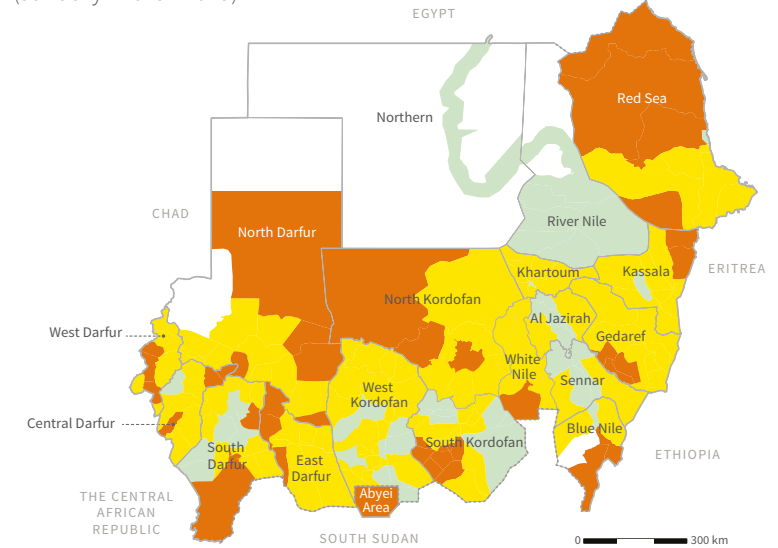
Recommended early actions

Crops

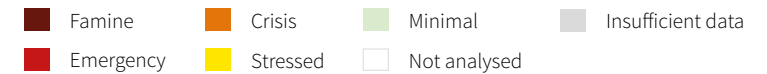
- Distribute seeds (sorghum, millet and pulses) to severely food insecure farmers to allow timely planting in June, especially in Blue Nile, Kordofan and North and South Darfur states.
- Distribute vegetable seeds to support the food production and income generation of severely food insecure farmers in irrigated areas in Blue Nile, Kordofan and North and South Darfur states.

Acute food insecurity situation

(January–March 2019)



IPC phase classification



Source: IPC, November 2018



Zimbabwe

Rising food and fuel costs coupled with an anticipated below-average cereal harvest in 2019 are expected to further worsen the food security situation



2.9 million people facing Crisis and Emergency (IPC Phases 3 and 4)



200 percent fuel price hike



Food prices at **64 percent** above last year levels



Risk overview

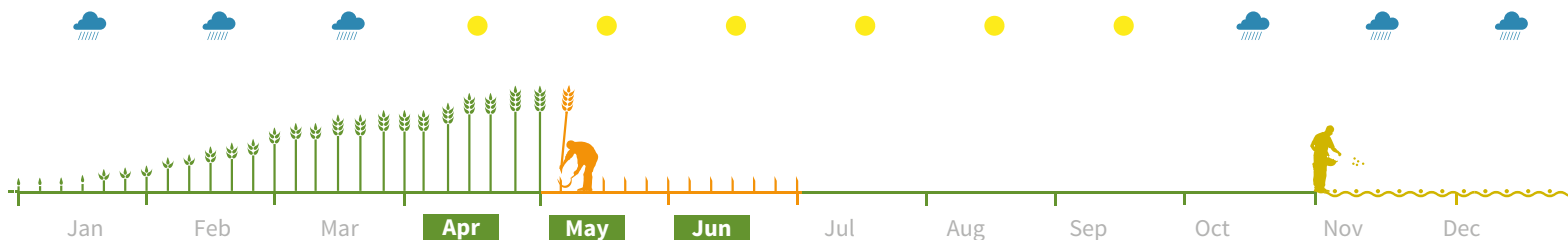
- The food security situation in Zimbabwe has worsened, driven by the impact of high food prices that has undermined households' access and availability to food. Underlying the significant spikes in the prices of fuel, food and other goods is a currency crisis that has worsened through much of 2018. At the same time, dry weather caused by El Niño-like conditions is putting severe strain on the most vulnerable farmers in the country.
- Fuel prices more than doubled in January 2019 after the government announced a fuel price hike of over 200 percent to Real Time Gross Transfers dollars (RTGS) 3.31 per litre. Consequently, transportation costs increased significantly, and are expected to adversely affect the operational and distributional costs for millers and retailers, further driving up the price of basic food commodities.
- Food prices were 64 percent above January 2018 levels, according to the latest data from Zimbabwe National Statistics (ZIMSTAT). High prices have negative impact on people's access to food, especially during the lean season (October–March), when most households have depleted their food stocks and depend mainly on markets.
- Precipitation since the start of the main cropping season in October has been generally below average across most of the country, with more significant rainfall deficits in western areas. Beneficial rains in the key cereal-producing north-eastern

provinces were observed in January and early February, however these were followed by a dry period during the second half of February and early March, further reducing prospects for reasonable harvests.



Potential impact

- Shortages of most basic food commodities like cooking oil, sugar, wheat flour and bread that began in October 2018 are expected to continue, while the increased fuel prices are expected to further push up food prices.
- The upcoming main season harvest which will start in April, is expected to slightly alleviate vulnerable households' situation and reduce their market dependence. However, due to the forecast below-average production, it is likely that households' food supplies from their harvests will be depleted earlier than normal, causing increased food insecurity later in 2019.
- On 15 and 16 March, Cyclone Idai hit eastern part of Zimbabwe, directly affecting 270 000 people across all districts in Manicaland and parts of Masvingo and Mashonaland East provinces, further impacting the agricultural sector.
- Overall seasonal rainfall deficits coupled with low availability and poor access to agricultural inputs are likely to cause a sharper reduction in cereal output in 2019, with impacts on domestic cereal supplies.



Timely livelihood support between April and June may be critical to anticipate and offset the negative impacts of expected below-average agricultural production and soaring food prices on food security.

- According to the recent IPC analysis released in February 2019, an estimated 31 percent of Zimbabwe’s rural population – 2.9 million people – will require urgent action to protect and save livelihoods, reduce food consumption gaps, and minimize acute malnutrition, between February and May 2019. Among these, 1.9 million people (20 percent) are in Crisis (IPC Phase 3), while around 1 million people (10 percent) have been classified in Emergency (IPC Phase 4).

Recommended early actions

Crops

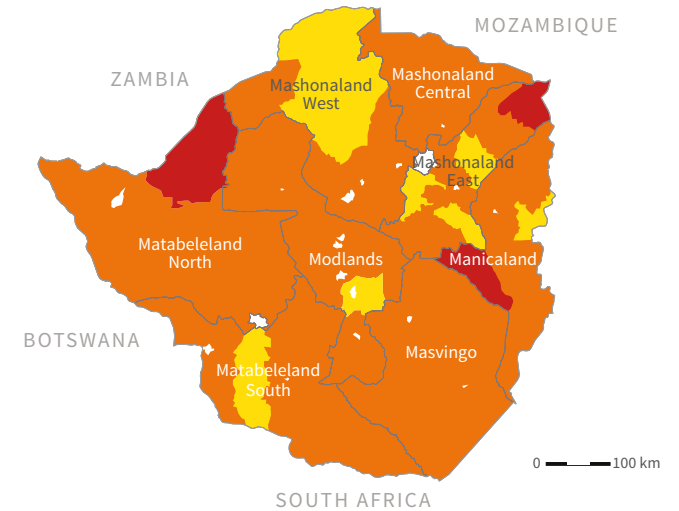
- Rehabilitate boreholes and establish community gardens to support off-season production among vulnerable communities in Buhera, Gokwe North, Hurungwe, Mudzi, and Rushinga districts.

Livestock

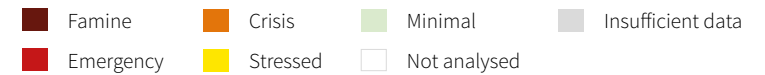
- Provide supplementary stock feed to vulnerable livestock keepers in areas where fodder/pasture is scarce, especially in Chiredzi, Gwanda, Mangwe and Mwenezi districts.
- Support livelihood diversification activities among vulnerable households in potentially affected areas, including the establishment of backyard poultry production and distribution of goats.

Acute food insecurity situation

(February–May 2019)



IPC phase classification




Source: IPC, February 2019



Cameroon

Crisis in North-West and South-West regions and increased insecurity in Far North region

 Almost **1.1 million** people to face food insecurity (CH Phases 3 to 5) between June and August

 **1 million** displaced people

Risk overview

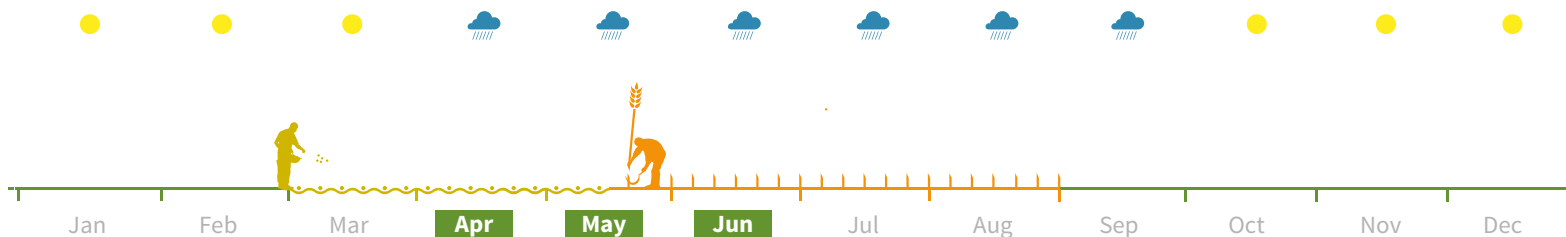
- Cameroon is currently facing a complex situation, mostly due to three ongoing emergencies, namely the insecurity and arrival of refugees in the Far North region due to the Boko Haram insurgency, the crisis in the North-West and South-West regions, as well as the crisis linked to incoming refugees from the Central African Republic in the eastern regions. The first two have seen a considerable increase in security incidents in early 2019. The increasing trend might continue in the next months, potentially leading to an escalation of humanitarian needs and adversely affecting livelihoods and agriculture. As highlighted in the 2019 Humanitarian Response Plan, humanitarian needs have increased by 30 percent compared with 2018.
- *Cadre Harmonisé* (CH) projections for June–August 2019 indicate that around 1.1 million people will be severely food insecure (CH Phases 3 to 5), mainly as a result of conflict and displacement. Furthermore, there are about 1 million people displaced and 227 000 children under five will suffer from global acute malnutrition in 2019.
- The conflict in the North-West and South-West regions has displaced over 444 000 people, affecting vulnerable farmers’ access to fields in a region where 70 percent of the population relies on agriculture for their livelihoods. The decrease in agricultural production, rising prices of the main staple foods as well as restrictions in access to markets are affecting the food security of the population. In these regions, an

estimated 111 000 children under five, and 24 000 pregnant and lactating women are vulnerable and in need of assistance. Humanitarian needs are rising in a context where access is severely constrained by insecurity.

- In the Far North region, recent attacks by Boko Haram in neighbouring Nigeria have caused new refugee inflows in Cameroon, as well as internal displacement. In January 2019, following attacks in Rann, Nigeria, more than 35 000 refugees arrived in Cameroon. Refugees here, who are mainly engaged in pastoral activities, have suffered great asset losses and are in urgent need of livelihood support. As of early March 2019, several thousands of refugees had already returned to Nigeria.
- The eastern part of the country continues to host a large refugee population from the Central African Republic – around 252 000 people.

Potential impact

- The ongoing conflict and displacement are likely to further affect people’s access to markets and food, thereby increasing the number of people food insecure in the upcoming months. As planting for several crops is either ongoing or will start in April–June, insecurity could affect farmers’ access to fields and agricultural inputs, and in turn their livelihoods.
- An intensification of the crisis in the North-West and South-West regions could trigger additional displacements to neighbouring



Targeted early actions are recommended to protect the food security of refugees, host communities, IDPs and vulnerable households in the regions at risk.

regions and an increase in humanitarian needs. The frequent lockdown and ghost town days are affecting economic activities, the functioning of markets and the start of the agricultural season. If this persists, reduced agricultural yields in these regions are highly likely in 2019, which will in turn lead to increased levels of food insecurity.

- In the Far North region, new refugee arrivals are likely to put further pressure on already limited resources, such as pasture and water, creating tensions with local host populations.

- Support vulnerable internally displaced people (IDPs) and very poor host families in the South-West region through:
 - Fostering broiler production by giving each beneficiary 50 three-week old chicks.
 - Fostering egg production by giving each beneficiary 25 three-month old pullets.
 - Training on adequate small livestock rearing techniques and minimum prophylactic measures.



Recommended early actions

Crops and cross-sectoral

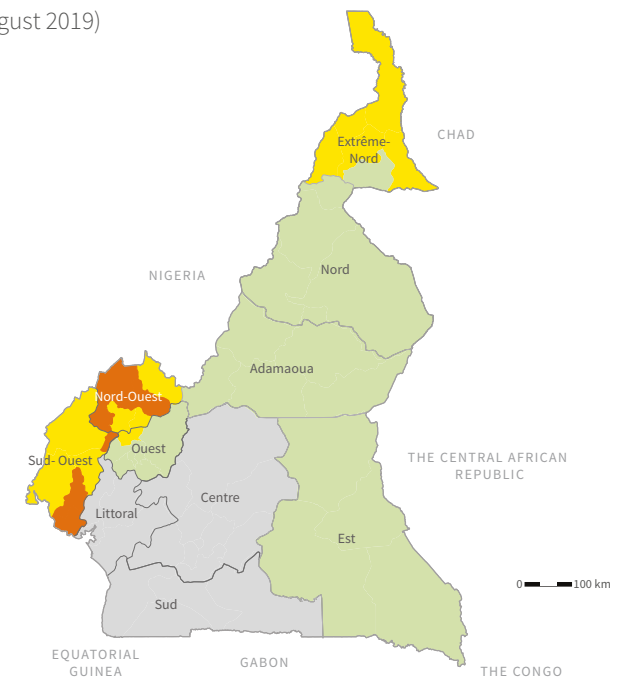
- Support vulnerable households in the South-West region through:
 - Provision of improved seeds and agricultural tools for home-gardening production.
 - Sensitization on practices for improved nutrition.
- Support vulnerable IDPs and very poor host families in the department of Logone-et-Chari of the Far North region through:
 - Fostering access to land and agricultural inputs to increase and diversify farming families' production during the next season.
 - Provision of fish feed, fish fingerlings and small tools to fishers to increase production.

Livestock

- Support refugee and host communities in Makary, Logone-et-Chari department, Far North region, through:
 - Provision of veterinary care and livestock feed for 20 000 animals.
 - Improved watering for animals.

Acute food insecurity situation

(June–August 2019)




CH classification


 Famine	 Crisis	 Minimal	 Insufficient data
 Emergency	 Stressed	 Not analysed	

Source: CH, March 2019

Burkina Faso

Significant increase in conflict and insecurity may lead to rising displacement and food insecurity, and affect agricultural activities

 Over **687 000** food insecure people (CH Phases 3 to 5)

 **133 000** children to be affected by severe malnutrition in 2019

Risk overview

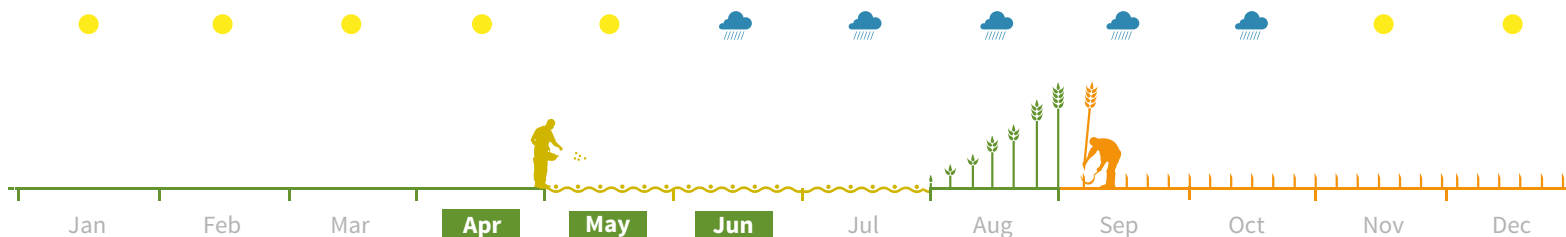
- The security situation in Burkina Faso has considerably worsened in late 2018 and early 2019. A steep rise in insecurity incidents by armed groups as well as intercommunal violence has been recorded, particularly in the Sahel, Centre-Nord, Est and Nord regions. As of early March 2019, more than 115 000 people were displaced by the recent violent events in the Sahel, Nord and Centre-Nord regions. The unprecedented wave of displacement adds to the already dire situation in the area, where around 25 000 people took refuge, mostly from neighbouring Mali. This has led to an increase in humanitarian needs, affecting people's access to fields and markets as well as the local economy.
- On 11 January 2019, the Government extended the state of emergency for six months, which is ongoing in 14 provinces in six regions. With 1.2 million people (5.7 percent of the population) in need of humanitarian assistance, in February 2019, the Government and the humanitarian community launched an Emergency Response Plan, appealing for USD 100 million.
- At national level, the agricultural production and food security situation has improved compared with last year thanks to an overall positive outcome of the 2018 season. The total cereal production in the country is estimated at 4.9 million tonnes – 12 percent above the average of the last five years and about 22 percent above the previous year's limited output. Overall,

markets are well supplied and food prices are stable and below the average of previous years.

- *Cadre Harmonisé* (CH) projections for June–August 2019 indicate that about 687 458 people will be severely food insecure (CH Phases 3 to 5) in Burkina Faso. Furthermore, as violence increases in the area of Liptako Gourma (cross-border area between Mali, the Niger and Burkina Faso), food insecurity is increasing in various affected areas, compared with the previous year.
- Above-average rainfall in 2018 contributed to good pasture across most of the country. However, it is unevenly distributed and half of the provinces have declared to have pasture deficits.
- Malnutrition for children under five years of age remains a concern in Burkina Faso, with more than 133 000 children estimated to be affected by severe acute malnutrition in 2019.

Potential impact

- Increased levels of violence are likely to further hamper people's access to food and markets in affected areas. Violence is likely to trigger additional displacements for a total estimated of 190 000, in a context where access to those in need is difficult.
- The period from April to June corresponds to the start of the next agricultural season. Insecurity could affect farmers' access to fields and agricultural inputs and in turn their livelihoods.



Early actions should target the most vulnerable households, particularly in areas affected by conflict, with a focus on the crop and livestock sectors.

This could lead to limited harvests and increased levels of food insecurity in the medium and long term.

- While increased levels of insecurity are prevalent in the Sahel, Nord and Est regions of the country, the same has been reported in the southern regions bordering Côte d'Ivoire, Ghana and Mali.
- Insecurity could also hamper pastoralist movements during the peak of the dry season from April to May, affecting pastoralists' livelihoods.

- Strengthen the provision of veterinary care through the distribution of zoo-technical and veterinary inputs for the animals of affected communities (displaced populations and refugees).
- Rehabilitate livestock water points.
- Promote commercial animal destocking in highly concentrated areas.



Recommended early actions

Early actions should target the most vulnerable households located in the provinces of Séno, Soum, Yagha and Oudalan of the Sahel region; the provinces of Bam, Sanmatenga, and Namentenga of the Centre-Nord region; the provinces of Gnagna and Komondjari of the Est region; and the provinces of Yatenga, Loroum, Passoré and Zondoma of the Nord region. The key recommendations for the crop and livestock sectors in the period of April–June 2019 are as follows:

Crops

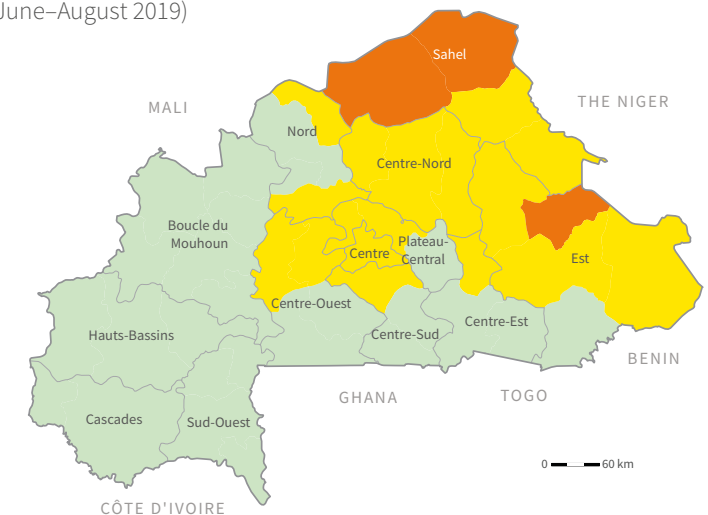
- Support vulnerable households (displaced, returnee and host populations) with access to land through the distribution of crop seeds and fertilizers in preparation of the next season.
- Support home-gardening through the distribution of vegetable seeds and agricultural tools.

Livestock

- Support vulnerable households (displaced, refugee and host communities) through livestock restocking and the distribution of feed.

Acute food insecurity situation

(June–August 2019)



CH classification

Famine	Crisis	Minimal	Insufficient data
Emergency	Stressed	Not analysed	

Source: CH, March 2019



Haiti

Political instability and prolonged drought affect food security

 **2.6 million** people projected to be severely food insecure

Risk overview

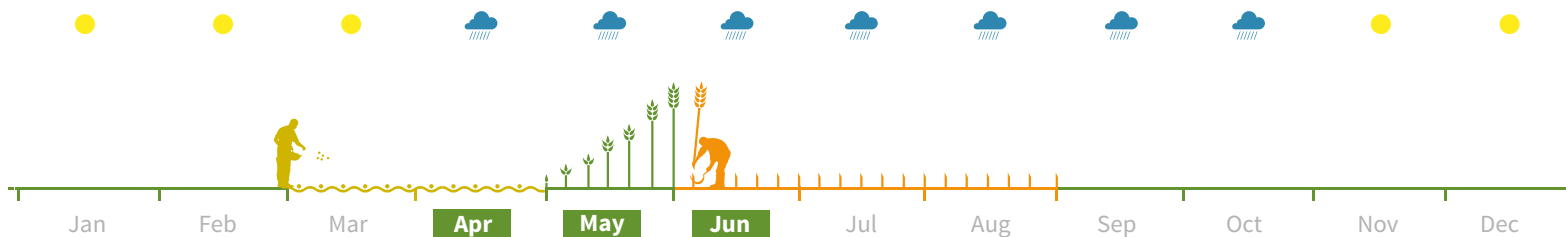
- In Haiti, an unfavorable cropping season compounded with high inflation has led to increased levels of food insecurity. El Niño-like conditions have contributed to below-average rains in 2018, affecting the production of the main crops – cereals and beans. The country is also experiencing a complex economic crisis. Civil servants are not receiving their full pay, food and fuel price hikes have occurred, and inflation rose up to about 16 percent for basic goods as of the beginning of 2019. A significant depreciation of the Haitian gourde has also made imported food increasingly expensive.
- The most recent Integrated Food Security Phase Classification (IPC) analysis (December 2018) estimates that more than 386 000 people (6 percent of the population) faced Emergency (IPC Phase 4) and over 1.8 million people (27 percent of the population) were estimated to be in Crisis (IPC Phase 3) between October 2018 and February 2019 for a total of over 2.2 million. Overall, 60 percent of crisis-affected people rely on agriculture for their livelihoods.
- The economic crisis has triggered and increased political instability. Protests have flared across the country since July 2018, initially over accusations of corruption, and fueled by the grave economic situation. They turned increasingly violent, particularly in February 2019, when the political opposition began a series of protests called “operation lockdown Haiti”,

marching on the presidential palace and blocking the road to the airport. The protests have resulted in the closure of businesses and the reduction of access to essential services and goods such as fuel, electricity, water, domestic gas and food. According to a provisional assessment of the United Nations Mission for Justice Support in Haiti, at least 26 people were killed and 77 were wounded in eight departments between 7 and 13 February.

- According to FAO and other agencies, the volatility and unpredictability of the demonstrations makes it difficult to deliver water and fuel, as well as constraining the restocking of markets. In the countryside, Haitians are often dependent on gas and food being imported overland from the Dominican Republic. The crisis has resulted in reduced diesel in fuel stations outside the capital, and roadblocks have disrupted trade.

Potential impact

- According to the latest IPC analysis, dry conditions and high inflation are likely to prevail from March to May 2019, which coincides with the lean season. Persistent inflation and the depreciation of the local currency will contribute to reduce households’ already low purchasing power. Over 2.6 million people will face Crisis (IPC Phase 3) levels of food insecurity during this period.



Early actions should be put in place before the planting season to mitigate the projected increase in the number of food-insecure people, which results from political instability and delayed rains.

- The political situation in the country remains volatile. The combination of economic difficulties, political uncertainty and food insecurity is likely to result in persistent humanitarian needs over the coming months; access constraints will limit the ability of humanitarian agencies to provide assistance.
- The El Niño phenomenon could lead to a late start of the next rainy season, which could delay the spring season, affecting the sowing of maize that typically begins in May.

Recommended early actions

Early actions should target vulnerable households particularly in department of Grand'Anse as well as in the departments of Nord, Nord-Est, Centre, Nord-Ouest and Ouest.

Cash

- Implement cash-for-work interventions combined with technical support for the promotion of sustainable agricultural practices, the rehabilitation of rural roads, etc.

Crops

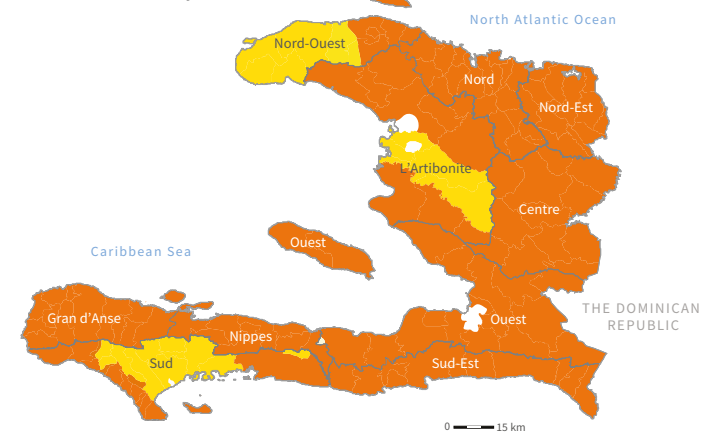
- Provide seeds (early maturing and drought-resistant crop varieties) and planting material either through direct distribution or seed fairs.
- Provide inputs and technical assistance for vegetable production.

Fisheries

- Provide inputs and technical assistance for fish farming production.

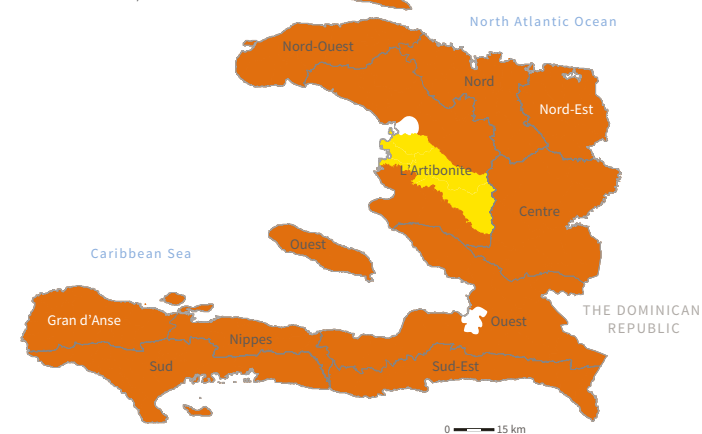
Acute food insecurity situation

(October 2018–February 2019)



Acute food insecurity situation

(March–June 2019)



IPC phase classification



Source: IPC, December 2018

Afghanistan

Heavy rainfall and snowmelt could prompt further flooding in already drought-affected areas

 **13.5 million** people are facing crisis or worse levels of food insecurity

 **22** out of **34** provinces experienced severe drought conditions in 2018

 **250 000** people are estimated to be impacted by heavy rain and flooding as of March 2019

Risk overview

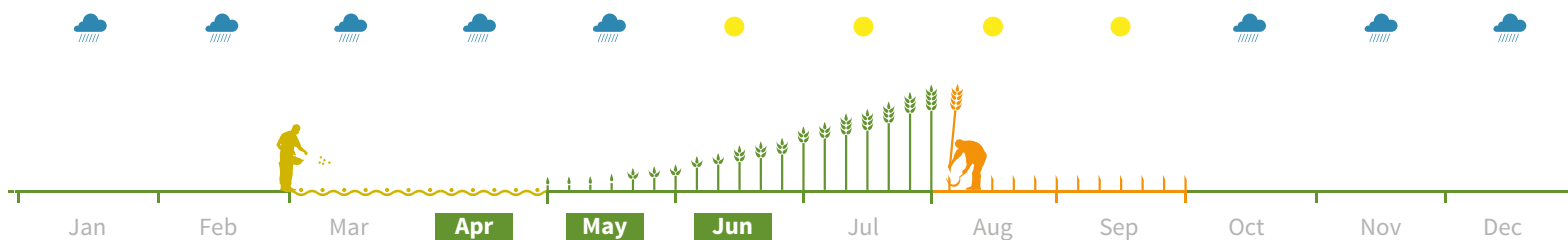
- From April to October 2018, an intense drought resulted in widespread food insecurity across Afghanistan. Due to persistent dry conditions, food production has been limited and needs have similarly increased. The situation has now been compounded by the ongoing weak El Niño episode, which has brought heavy snowfall and rain over the past months. While this is providing some respite to the drought situation, it has already instigated some of the worst flooding in parts of the country in more than seven years.
- An estimated 13.5 million people are facing crisis or worse levels of food insecurity (IPC Phase 3 and above), of whom 3.6 million are facing Emergency levels (IPC Phase 4) nationwide¹. Households dependent on rain-fed wheat production, particularly in the northern, western and southern areas, are expected to experience difficulty meeting consumption requirements until 2019 spring harvest (August–September). In Badghis province alone, more than 75 percent of the population are in Crisis and Emergency phases of food insecurity.
- In 2018, severe drought conditions were recorded in 22 of the 34 provinces in Afghanistan. The event severely limited cereal production, resulting in a 25 percent decrease below the five-year average, and depleted farmers and livestock keepers' key productive assets. According to the Emergency Food Security Assessment conducted in December 2018, an estimated 92 percent of farmers reported not having enough seeds or no

seeds for the October 2018–April 2019 cropping season. This may result in below-average planted areas if farmers cannot rely on saved seeds from previous seasons. According to OCHA, the 2018 drought displaced an estimated 287 000 people, primarily from the northwestern and western regions.

- The wet season (mid-October 2018–May 2019) has already brought above-average precipitation and high-elevation snow across Afghanistan. The onset of snow accumulation began earlier than usual, starting in early October. Snow water volumes are significantly exceeding long-term averages in most of the basins in the country. Rain and heavy mountain snow are forecasted to continue across Afghanistan.
- As of March 2019, heavy rains have instigated flooding across nine provinces, with Badghis, Farah, Helmand, Herat and Kandahar being the worst affected. An estimated 250 000 people are affected and more than 8 670 houses damaged or destroyed. Damage to agricultural land and water infrastructure has also been reported with a suspected high case-load of livestock mortality.

Potential impact

- While increased precipitation is favourable for the winter wheat growing/harvesting season (December–June) and spring wheat planting season (March–April), it also presents a serious threat. Heavy snowfall is commonly associated with flooding in Afghanistan, as the snow melts from April onwards and flows



Flash floods following three consecutive droughts could lead to a further deterioration of the already dire food security situation in the country. Early actions are crucial to support the planting season for the spring and summer, encourage livelihood diversification and protect the assets of the most vulnerable communities.

into catchment areas. According to FEWS NET, high temperatures are forecast for the April period, which can accelerate snow melt runoff and contribute to flooding in basins that are already showing significantly high snow water volumes. The situation is particularly alarming as an estimated 80 percent of the soil is in poor condition and subject to erosion due to cumulative years of dryness, which were exacerbated by the 2018 drought. This has made agricultural land increasingly fragile and exposed to damage if flooding occurs.

Recommended early actions

Cash

- Rehabilitate water catchments through cash-for-work programmes to enhance water storage capacity in 22 provinces affected by consecutive droughts and exposed to flash floods.
- Build/repair protection walls and gabions through cash-for-work programmes to protect crops and animals in the 22 provinces affected by consecutive droughts and exposed to flash floods.

Crops

- Distribute summer crop seeds (maize and mung beans) to severely food insecure farmers by May to support the planting season.
- Distribute nutrition-sensitive vegetable kits to vulnerable female- and elderly-headed households to support off-season food production in the 22 provinces affected by consecutive droughts and exposed to flash floods.

Livestock

- Distribute concentrated animal feed to severely food insecure livestock keepers to protect livestock assets in areas where pasture is scarce.

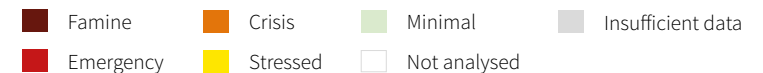
- Distribute poultry to vulnerable female- and elderly-headed households to support livelihood diversification in the 22 provinces affected by consecutive droughts and exposed to flash floods.

Acute food insecurity situation

(November 2018–February 2019)



IPC phase classification



Source: IPC, October 2018

¹ IPC Afghanistan Report #10 (November 2018) with population data adjusted based on the United Nations Population Fund census of 2015–2016 as reflected in the 2019 Humanitarian Response Plan. Original IPC numbers suggest 10.6 million people face Crisis and Emergency levels of food insecurity (IPC Phases 3 and 4).



Nigeria

High levels of insecurity in several states affect agriculture and food security

 **4.9 million** people food insecure (in CH Phases 3 to 5) between June and August 2019

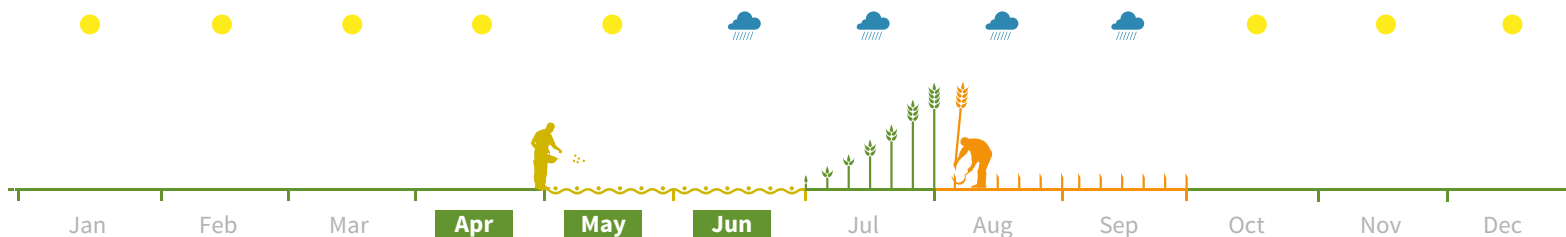
Risk overview

- Despite the relatively improved food security situation compared with previous years, the situation remains volatile due to recent increased violence across several states. While numerous incidents were related to the recent period of elections both at national and local levels, a sharp increase in attacks in the northeastern state of Borno has been recorded, triggering new displacements and increasing needs. Furthermore, communal clashes between pastoralists and farmers were frequent, particularly in Adamawa, directly affecting the livelihood assets and food security of the local population.
- At national level, *Cadre Harmonisé* projections indicate that 4.9 million people will be severely food insecure during the lean period (June–August 2019). This includes around 2.9 million people located in the three states of Adamawa, Borno and Yobe that affected by the ongoing insurgency perpetuated by non-state armed groups.
- Thanks to the generally adequate rainfall in 2018, agricultural production estimates for last year’s season are positive. Adequate rainfall also improved the availability of pastures and water. The animal health situation is generally stable. However, the conflict in the North East and the clashes between farmers and pastoralists have limited access to grazing land in affected areas.
- Overall, nearly 2 million people continue to be displaced by insecurity and conflict in Nigeria. The recent attacks in the North East led to further internal displacement as well as to a considerable movement of refugees – around 35 000 people – into neighbouring Cameroon.

- The resurgence of highly pathogenic avian influenza H5N8 in Bauchi, Kano, Nasarawa and Plateau states highly affecting poultry farmers continue to spread into neighbouring states.

Potential impact

- The increase in violence and insecurity is likely to continue in the next months. This is likely to further exacerbate humanitarian needs, prevent farmers from engaging in production activities and reduce access to food and markets. Moreover, conflict in the North-West and South-West regions of Cameroon will likely lead to the arrival of additional refugees into Nigeria.
- If insecurity increases, humanitarian access to reach those in need will be hampered. This would have detrimental effects on the conditions of hundreds of thousands of people – an estimated 307 000 – who are projected to face Emergency (CH Phase 4), including hundreds of people in inaccessible areas.
- Insecurity is also likely to restrain pastoralist movements and access to pasture and water during the peak of the dry season, as well as farmers’ access to fields during the preparatory months of the next agricultural campaign.
- The 2019 seasonal rainfall prediction, issued by the Nigerian Meteorological Agency, indicates slightly delayed rains in most parts of the country and regular-to-below rainfall amounts in most states. Partners should closely monitor updates of these predictions, as the situation may change. Should rainfall be late and slightly below regular, vulnerable agropastoralists in the North East are likely to be affected.



Continued efforts are required in order to support peacebuilding, reduce food insecurity and ensure the regular development of agricultural activities in conflict-affected areas.



Recommended early actions

Cash

- Scale-up social protection support to returnees, IDPs and the most vulnerable people, particularly women and children, through conditional cash-based transfer interventions.

Crops

- Support vulnerable farming households to engage in food production during the main cropping season (May–October) in the three northeastern states of Adamawa, Borno and Yobe through: the provision of early maturing, drought-resistant varieties of seeds and other in-kind agricultural inputs, training in good agricultural practices, input trade fairs in selected locations and farmer field schools.
- Provide women with vegetables kits to meet immediate household food needs and income, as well as groundnut and sesame seeds as cash crops.
- Support home-based livelihood activities among the most vulnerable households (backyard/micro- gardening, cash+ and poultry production) and natural resource management including Safe Access to Fuel and Energy.

Livestock

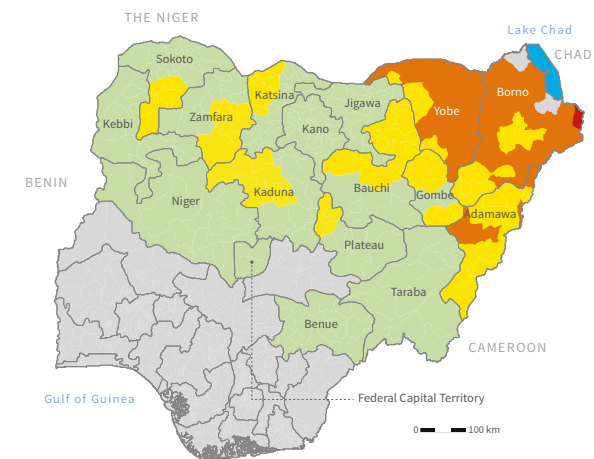
- Build herders' capacities to produce feedstock.
- Support State Veterinary Departments to organize livestock mass vaccination and medication campaigns in high risk areas combined with supplementary livestock feed interventions around nomadic areas.
- Conduct community sensitization on peaceful coexistence between farmers and herders, and advocate for delimitation of grazing areas and animal routes/corridor in agropastoralist communities in the seven states of Adamawa, Benue, Kaduna, Nasarawa, Plateau, Taraba and Zamfara. In connection with this, promote awareness of the Voluntary Guidelines on the

Responsible Governance of Tenure of Land, Fisheries and Forests in the context of food security, targeting policy makers, herders, farmers and other users of natural resources in order to foster social stability.

- Support capacity building at all levels (quarantine staff, borders inspectors, state and private veterinary officers and poultry farmers) on avian influenza disease recognition, outbreak investigation, control and containment.

Acute food insecurity situation

(June–August 2019)



CH classification

 Famine	 Crisis	 Minimal	 Insufficient data
 Emergency	 Stressed	 Not analysed	

Source: CH, March 2019



Asia – African swine fever outbreak

African swine fever outbreak threatens to spread further in Asia



ASF is a viral disease affecting pigs and wild boars, with up to **100 percent** fatality



Risk overview

- In early August 2018, the Ministry of Agriculture and Rural Affairs of the People's Republic of China confirmed its first ever outbreak of African swine fever (ASF) in the country, which occurred in Liaoning Province. ASF is a viral disease affecting pigs and wild boars with up to 100 percent fatality. To date over 120 sites have reported ASF in China. The virus strain identified is the same strain currently affecting eastern and central Europe.
- The mechanism and origin of this incursion into China is uncertain. There are possible links with reports of ASF virus in a backyard pig farm in Irkutsk Oblast, Russian Federation in March 2017.
- As of 21 March 2019, ASF was reported in 28 of China's 34 provinces/administrative divisions, and it was reported for the first time in wild boars in Jilin and Heilongjiang provinces in December 2018.
- In January 2019, the disease spread to Mongolia, where it has caused at least 11 outbreaks in seven different provinces. In February 2019, ASF reached Viet Nam and by 21 March 2018, more than 290 outbreaks had been reported in 19 different provinces. Neighbouring countries including Cambodia, Lao People's Democratic Republic and Myanmar, as well as the Philippines are at risk of introduction of the disease.



Potential impact

- Over the last few months, there have been several detections of ASF virus in pork samples in the region. The ASF virus survives in cold or hot weather, when dried or cured in pork products, and is resistant to some disinfectants. Pork products (such as sausages) are difficult to control at border points, and hygienic practices on swine farms difficult to enforce. The lack of a commercial vaccine makes prevention and protection difficult, but not impossible. Increased awareness, education, hygiene and biosecurity are key to disease control.
- As ASF spreads into neighbouring countries, where biosecurity in swine farming is lower, and compensation to farmers for depopulation of swine less reliable, this is likely to have serious impacts on already fragile rural livelihoods and food security. The swine sector plays a key role in providing animal protein and supporting people's livelihoods, due to pigs' fast growth, efficient feed conversion, quick turnover and high reproduction.
- Risky practices include: buying piglets and adult swine from unknown sources and at lower than normal prices, mixing bought pigs with existing swine on a premises, allowing visitors onto swine farms, sharing equipment or transport vehicles, using soiled (not disinfected) footwear, and feeding pigs scraps from kitchens, restaurants, rubbish, or swill from abattoirs.



Recommended early actions

Communication

- Ensure good communication and coordination with swine producing commercial sector and swine farmers to strengthen cooperation in ASF prevention, detection and control.

Food waste disposal

- Strengthen proper disposal of food waste (e.g. via food services, airports and seaports), which may contain uncooked pork products.

Planning

- Ensure that sustainable outbreak control strategies are in place. The strategies need to be developed in consultation with the private sector (pig production and allied industries, such as transport and feed operators) who should be actively involved in disease management options.
- Carry out preparedness activities (e.g. contingency planning, standard operating procedures and secured financial support) based on the principles of early warning, detection and notification, early reaction and coordination.
- Enabling legislation – authorizing veterinary regulatory controls for high impact diseases, such as ASF (but should include others considered priorities for the country).
- Investment in public awareness.

Pork value chains

- Strengthen surveillance and monitor transport of live pigs as well as pork products.
- Apply strict biosecurity measures including frequent cleaning and disinfecting of farms and transport vehicles, and improvement of hygienic husbandry practices and production systems.
- Conduct and strengthen awareness raising and training activities targeting all stakeholders, from veterinarians and auxiliary personnel to farmers, abattoir workers, intermediaries and other value chain actors.
- Ensure that farm registries, animal identification and censuses are carried out and updated to enable the location of animals in the event of outbreaks and animal health interventions.
- Advocate for the prohibition of swill feeding.



Fall armyworm

Further spread across Asia



Risk overview

- Fall armyworm (FAW) is an insect native to tropical and subtropical regions of the Americas. FAW larvae prefer maize as a host plant, but can feed on more than 80 other plant species including rice, sorghum, vegetable crops and cotton.
- FAW was first detected in Central and West Africa in early 2016. Today, it is present in almost all countries of sub-Saharan Africa, with tens of millions of hectares of maize infested. In July 2018, it was found for the first time in India and Yemen and as of January 2019, it has been detected in Bangladesh, China, Myanmar, Sri Lanka and Thailand.
- Left unmanaged or in the absence of natural biological control, FAW can cause significant yield loss in maize and other crops.



Potential impact

- Given favourable tropical and subtropical climate in areas of Asia, there are crops and weeds all year round that the pest can feed on. FAW is likely to spread to other parts of Asia, with Southeast Asia and southern China most at risk. More than 200 million ha of maize and rice are cultivated annually in Asia. China is the second largest maize producing country in the world and more than 90 percent of the world's rice is produced and consumed in the Asia and Pacific region.
- FAO has formulated a Framework for partnership for the sustainable management of FAW in Africa focused on farmer education, testing of FAW practices, monitoring and assessment, research, and policy support.
- FAO is planning to implement an interregional TCP on FAW for Africa, the Near East and Asia, focusing on the exchange of knowledge and advice, in partnership with the Brazilian Agricultural Research Corporation. Moreover, FAO has developed a programme in close collaboration with the

Chinese Academy of Agricultural Sciences (CAAS) to facilitate the further development of monitoring and early warning systems and to enhance the capacity of countries to manage FAW through natural biological means.

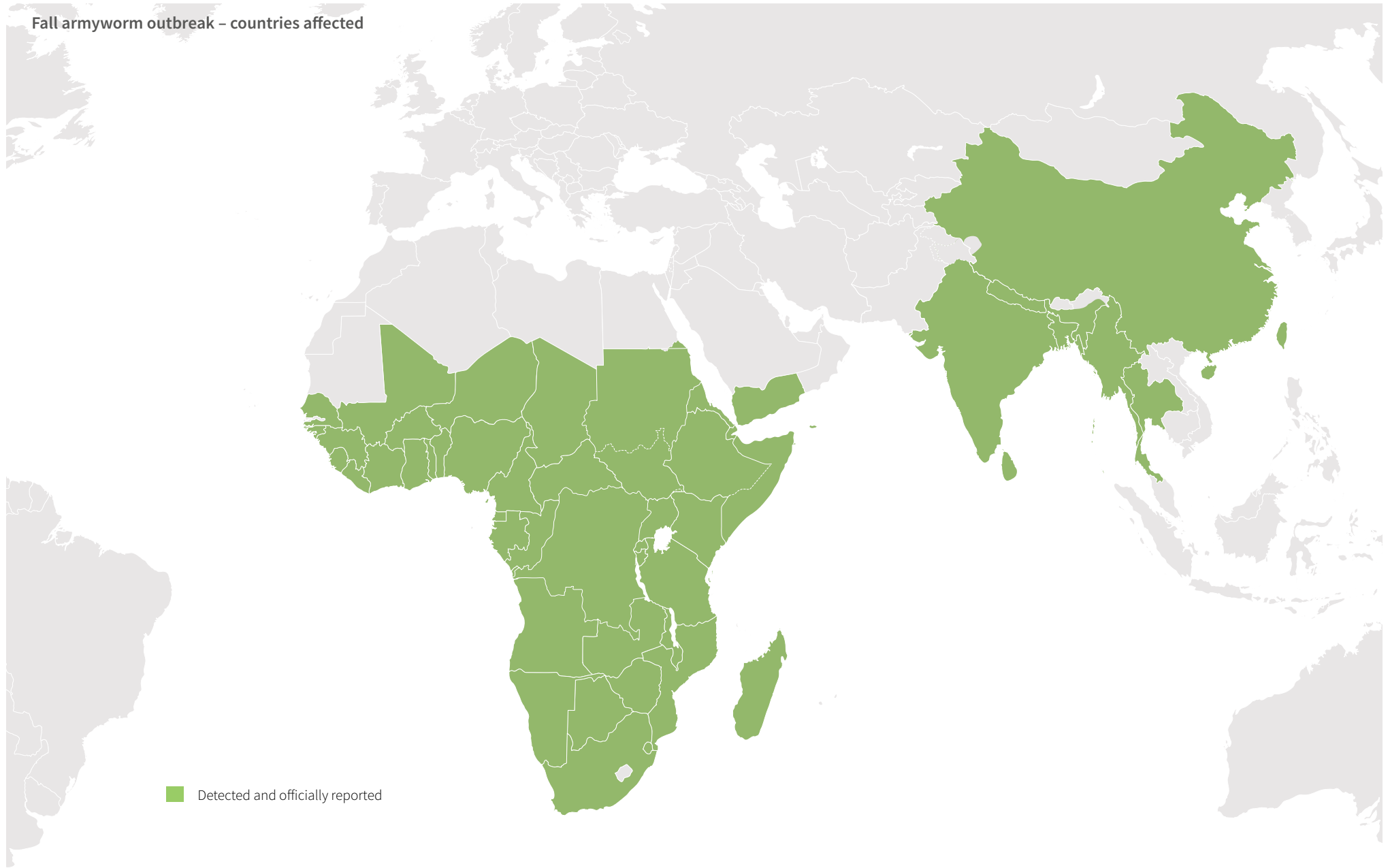


Recommended early actions

FAW is a dangerous transboundary pest which can produce several generations per year. It has a high potential to spread continually – by flying up to 100 km per night and through trade routes. Farmers need significant support to be able to manage FAW sustainably in their cropping systems through Integrated Pest Management activities.

- Scale-up efforts to collect specific evidence on the spread and impact of FAW in African and Asian countries, with a specific focus on countries known to be at high risk of food insecurity due to the pest.
- Increase the use of the Fall Armyworm Monitoring and Early Warning System (FAMEWS) – a mobile application to identify and report the level of infestation and map its spread. The app also contains a training component which works offline and advises farmers on sustainable pest management.
- Since the pest cannot be eradicated, the long-term focus is on the development of economically sound and sustainable pest management techniques for smallholder farmers.
- Support natural biological control efforts, such as use of predators and parasitoids rather than pesticides. Pesticides provide ineffective control of FAW and pose high risks to human health and the environment.
- Support the implementation of farmer field schools for the training of smallholder farmers on pest management.
- Support south-south cooperation – facilitating meetings and workshops for sharing of knowledge and lessons learned.

Fall armyworm outbreak – countries affected



Source: FAO, March 2019

high risk

The food security situation in the Democratic Republic of the Congo is worsening. Insecurity and violence have spread, causing significant population displacements, and hindering the response to the ongoing Ebola virus disease (EVD) outbreak. Risks of further transmission of the disease remain very high as a result of reduced operations in several areas. The below-average harvest in northern and central regions is also severely affecting households' food stocks.

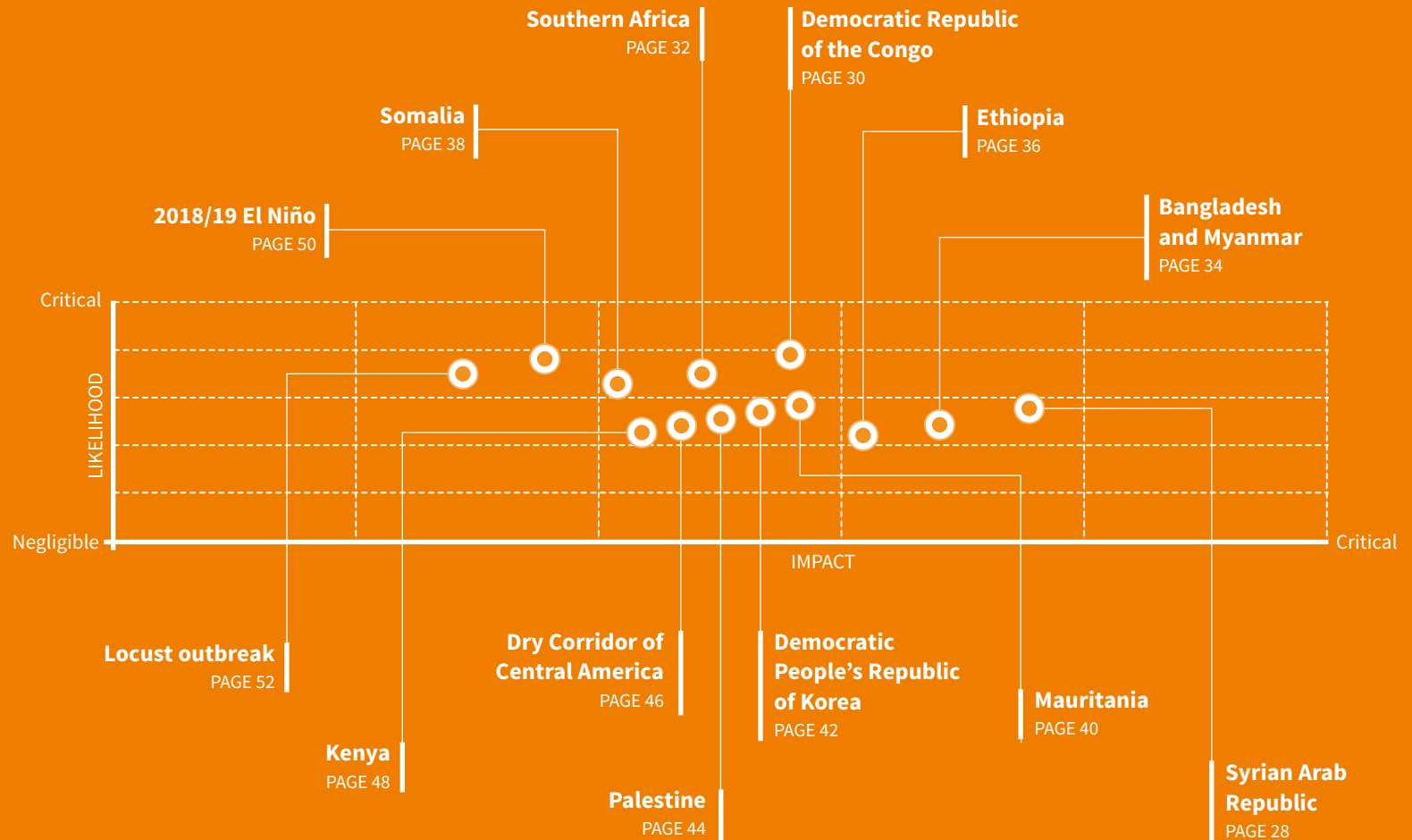


On watch

The matrix provides an overview of the ranking of risks featured in this report. The risks are prioritized based on the severity, likelihood and magnitude of their impact, while also balanced against the countries' individual coping capacity.

In order of intensity, for the period April–June 2019, the **on watch** section includes:

- Syrian Arab Republic
- Democratic Republic of the Congo
- Southern Africa
- Bangladesh and Myanmar
- Ethiopia
- Somalia
- Mauritania
- Democratic People's Republic of Korea
- Palestine
- Dry Corridor of Central America
- Kenya
- 2018/19 El Niño
- Locust outbreak



Syrian Arab Republic

Instability in northwestern parts of the country compromising food security gains

 More than **5.5 million** people food insecure, with potentially an additional **500 000 to 800 000** in Idlib Governorate

 **6.2 million** IDPs

 **5.7 million** registered Syrian refugees in the region

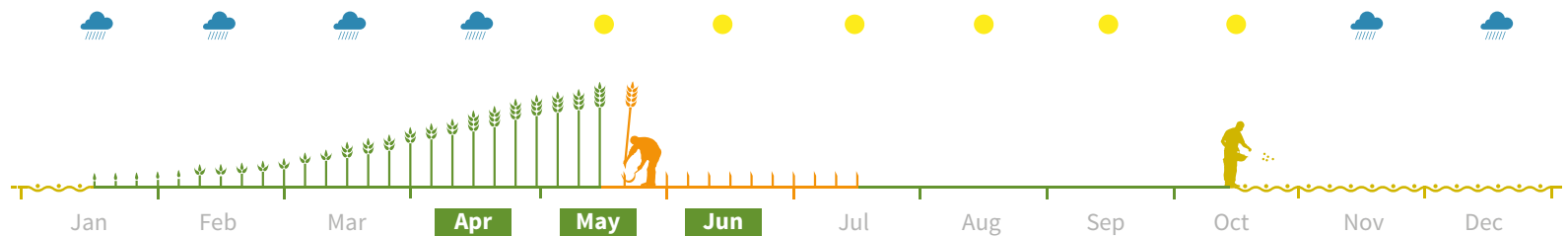
Risk overview

- As of September 2018, the number of IDPs in the Syrian Arab Republic was around 6.2 million. In February, almost 5.7 million Syrian refugees were registered in the region, with a large number of Syrians living abroad without seeking refugee registration according to UNHCR. An improvement in humanitarian access compared with previous years was observed in 2018, with the number of people in need residing in hard-to-reach locations having declined from 4.1 million in January 2017 to 1.1 million people in February 2019.
- According to a joint FAO/WFP CFSAM conducted in June and July 2018, the overall food security situation has improved in many parts of the country compared with 2017. However, areas of serious concern remain due to continued localized conflict and new displacements. More than 5.5 million Syrians are estimated to be food insecure and require assistance. There are potentially an additional 500 000 to 800 000 food insecure people in Idlib Governorate, a number that has to be confirmed once access conditions improve.
- Jihadist alliance Hei'at Tahrir al-Sham (HTS) has gained and stabilized territory in Idlib Governorate in 2019, which resulted in retaliation from the Syrian Government. According to Office of the United Nations High Commissioner for Human Rights, the intensified ground-based bombardment of Idlib and surrounding areas, coupled with attacks by non-state actors, has led to numerous civilian casualties and left about 1 million

- people, including hundreds of thousands of displaced people, in an extremely vulnerable situation. This has led to a wave of population displacement over the past months.
- The United States of America's announcement in December of withdrawing their troops could increase the possibility of Turkish military involvement in the area currently controlled by the United States-aligned, Kurdish-dominated Syrian Democratic Forces. Turkey reportedly sought Russian permission to use Syrian airspace for possible operations against Kurdish military units.
 - According to 2018 CFSAM results, production of wheat and barley declined sharply in the May–July 2018 season compared with the previous year, largely due to erratic weather. Although weather conditions appear favourable across the region, the agriculture sector remains severely damaged by the ongoing conflict.

Potential impact

- Humanitarian implications from a possible offensive in Idlib Governorate are likely to be very significant. Moreover, fear of aid money being diverted by HTS has led resource partners to cut funding to Idlib Governorate, worsening the humanitarian situation. In addition to access constraints, this could affect progress in the nationwide food security situation observed in 2018.
- Given the poor cereal harvest in 2018, seeds are very likely to be in short supply for the 2019 season. Inputs are also expensive



The food security situation of the Syrian population may deteriorate due to the persistent instability in the northeastern part of the country. The continuation and upscaling of livelihood support can provide crucial help to the most vulnerable households.

and agricultural infrastructure is damaged. Against this background, food security implications from a possible offensive in Idlib Governorate are likely to be very significant, given the high number of food insecure people in the area and potential large-scale displacement.

- Preparedness plans are ongoing for a possible Turkish military operation in northeastern Syrian Arab Republic. This could lead to further displacement and deterioration of the humanitarian situation in the area.



Recommended early actions

Accessibility

- Advocate for demining and removal of unexploded devices to allow safe access of farmers to cultivated lands for harvest and safe access of livestock breeders to grazing areas.

Assessment

- Expand the scope of the current drought early warning system to cover other natural hazards (floods and storms) and to assess potential impacts on food security through a combined analysis of natural resource and socioeconomic indicators.

Cash and vouchers

- Design voucher schemes in targeted areas to support the livelihoods of the most vulnerable affected people.

Crops

- Support seed multiplication systems for wheat in central areas of the country to increase seed needs for the planting season starting in October.
- Distribute vegetable seeds to the most vulnerable farmers to support backyard food production.
- Reconstruct or rehabilitate irrigation infrastructure.

Livestock

- Carry out livestock vaccination and treatment to the most vulnerable households.



Democratic Republic of the Congo

Ebola outbreak and insecurity continue to affect the population



923 EVD cases, including **858** confirmed and **65** probable cases



13.1 million people facing Crisis and Emergency (IPC Phases 3 and 4) food insecurity conditions

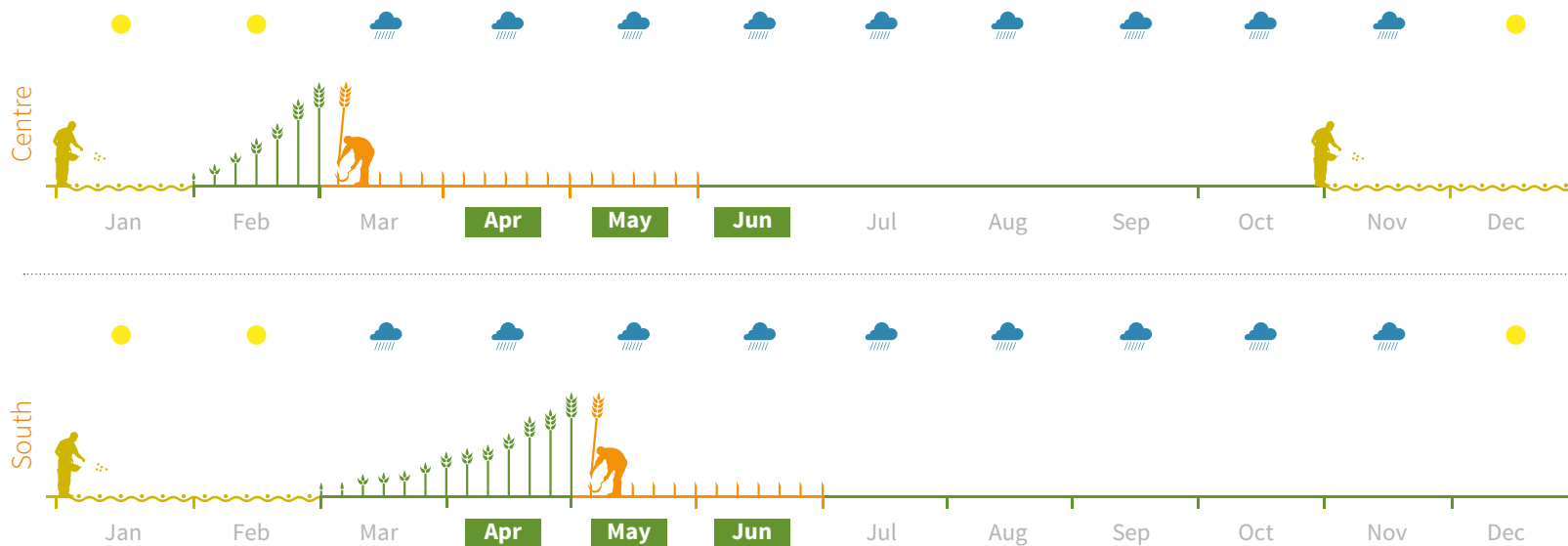


Risk overview

- The situation in the Democratic Republic of the Congo has drastically worsened over the past year. Insecurity and violence have spread, causing significant population displacements, increasing needs and levels of food insecurity and malnutrition, and hindering the response to the ongoing Ebola virus disease (EVD) outbreak.
- According to the latest IPC analysis, valid until June 2019, about 13.1 million people are estimated to be severely food insecure (IPC Phases 3 and 4) – an increase of about 70 percent compared with 2017 – mainly located in the Ituri, North Kivu, Kasai and Tanganyika regions as a result of the persisting conflict.
- Efforts to contain the EVD outbreak in North Kivu and Ituri provinces continue to be challenging given ongoing security incidents and pockets of community mistrust. Two Ebola treatment centres (ETCs) in Katwa and Butembo were attacked

and burnt down in late February 2019. As of 10 March 2019, a total of 923 EVD cases, including 858 confirmed and 65 probable cases, were reported from 20 health zones in North Kivu and Ituri provinces.

- In October 2018, around 350 000 returnees were reported mostly in the Kasai region following an expulsion order by the authorities in Angola. Many of these returnees have lost their productive assets and are likely unable to engage in livelihood activities.
- In the northern and central regions, the harvest of the main season for the production of maize was completed in January, while in southern provinces it is typically completed by the end of February. Although crops benefited from adequate rains during the season in the main producing areas, the ongoing conflict in the Kasai, North Kivu, South Kivu, Ituri and Tanganyika regions continued to disrupt agricultural activities and limited farmers' access to crop growing areas.



Early action in the Democratic Republic of the Congo is critical to mitigate the impact of below-average harvests on an already severe food insecurity situation, compounded by conflict, and the Ebola outbreak.



Potential impact

- The Ebola outbreak in the Democratic Republic of the Congo continues with moderate transmission intensity. The recent attacks on ETCs in Katwa and Butembo are a major setback, severely affecting humanitarian assistance. According to the World Health Organization, risks of further transmission spread and potentially undetected chains of transmission in communities remain very high as a result of a reduced operations in several areas.
- The below-average harvest in northern and central regions affects households' food stocks. Vulnerable farmers in these regions are likely to continue experiencing challenges to access food and increased levels of food insecurity.



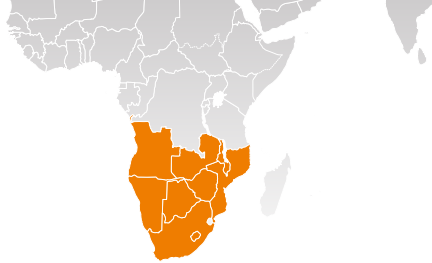
Recommended early actions

Crops

- Distribute maize, pulse seeds (cowpea and bean) and sweet potato cuttings between May and June.
- Distribute maize and pulse seeds between May and June in Bunia city for lowland production.
- Distribute gardening seeds, agricultural tools and processing units.

Livestock

- Support the livestock production of vulnerable farmers through the distribution of guinea pigs to households and goats to farmer-based organizations starting from May 2019 to improve their access to income and protein food sources.



Southern Africa

Reduced agricultural production due to extreme weather events is expected to result in higher levels of food insecurity



October 2018–January 2019 rainfall may be among the lowest since 1981 in parts of the region



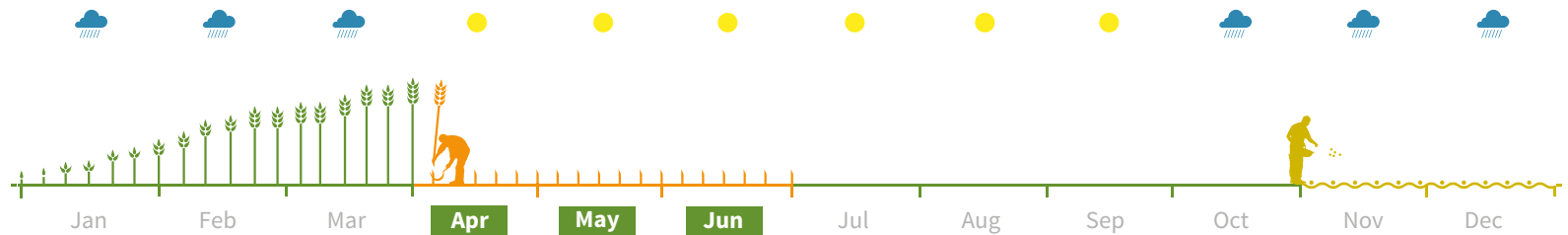
Flooding following the landfall of cyclone Idai in March 2019 affected more than **600 000** persons in Mozambique (preliminary figure)

Risk overview

- Rainfall in many parts of southern Africa has been well below average during the 2018–19 cropping season, impacting staple crop growth and sharply reducing production prospects for the 2019 harvest. This has mainly been caused by El Niño-like conditions which resulted in anomalous reduction in precipitation since the start of the rainy season from October 2018. The dry conditions are exacerbating existing high levels of vulnerability and food insecurity in certain parts of the region as well as having a cumulative effect in countries which already suffered reduced agricultural output in 2018 (e.g. Malawi and Zambia).
- In particular, in Zimbabwe and western parts of Zambia precipitation has been poorly distributed and mostly below average, indicating that cereal outputs in these countries will be lower than the recent five-year average.
- The Southern African Development Community (SADC) Regional Vulnerability Assessment and Analysis (RVAA) Committee assessed the rainfall season performance and the food security situation in the region in February 2019, and confirmed that it is likely that crop production will be negatively affected in many

southern and central areas. SADC noted that the October 2018 to January 2019 rainfall may be among the lowest since 1981 in parts of southern Angola, western Botswana, Lesotho, northern Namibia, western and central South Africa, southwestern Zambia, and western Zimbabwe. Rainfall was also poorly distributed and below average in western Madagascar, southern Mozambique, and eastern Tanzania.

- Tighter supplies, economic difficulties and reduced prospects for 2019 crops are already driving seasonal price increases in several countries. By January 2019, prices of most cereal staples had risen.
- In addition to the drought, widespread flooding following the landfall of cyclone Idai in March 2019 caused many deaths and affected more than 600 000 people in Mozambique, over 125 000 in Malawi and nearly 270 000 in Zimbabwe affected (this estimate is expected to rise following assessments on the ground). The floods are expected to have caused extensive crop losses in central provinces of Mozambique. Heavy rains and subsequent flooding also impacted Malawi and Zimbabwe, inflicting damage on the agriculture sector.



A number of early actions are recommended to support vulnerable farmers and avoid deterioration of food security conditions due to below average harvests and rising food prices.

Potential impact

- Overall, the 2019 cereal production outlook in most parts of southern Africa has deteriorated since the start of the season and average to below average harvests are foreseen in most countries.
- Livestock production is also expected to be curtailed by the dry weather conditions. However, production prospects in Eswatini, Madagascar, Malawi and Mozambique are more favourable, based on current conditions and predicted weather patterns.
- The likely reductions in cereal harvests in 2019 are expected to result in an increase in the prevalence and severity of food insecurity in western countries, including western and southern parts of Zambia and Zimbabwe later in the year, further compounding existing vulnerabilities.
- In addition, food prices are likely to continue to rise until the harvest period from April to May, further restricting access to food and aggravating food insecurity.
- The flood-induced crop and livestock losses are expected to aggravate food insecurity in 2019–20, due to the effect on food supply and household income usually generated from crop sales. Moreover, the impact of the floods are expected to trigger price spikes, further curbing access to food.

Recommended early actions

Assessment and coordination

- Support systematic crop monitoring, food security and nutrition assessments, and analysis and dissemination of climate and market information.
- Bolster national Vulnerability Assessment Committees (VACs) and Food Security Clusters, ensuring the inclusion of agriculture, food and nutrition security information and analysis, e.g. Integrated Food Security Phase Classification (IPC).

Crops

- Support winter and main summer season agricultural campaigns, and off-season vegetable production, through distribution of seeds, fertilizer, planting materials and tools.
- Reinforce extension programmes and promote resilience-enhancing cropping practices and technologies, taking into account local knowledge systems.
- Strengthen transboundary plant pest and disease surveillance and management systems from national to regional level.

Livestock

- Improve animal health services through technical and operational capacity building of relevant government departments and partners.
- Continuation of vaccination and treatment campaigns to prevent the spread of transboundary diseases.
- Introduce practices that improve pastures and promote community-managed fodder production and conservation.
- Water management
- Support small-scale water harvesting, irrigation initiatives and/or identification of perennial water sources.
- Support water distribution through trucking, where appropriate.
- Promote cash-for-work initiatives to rehabilitate and construct water points (including boreholes).




Bangladesh and Myanmar

The refugee crisis could be further exacerbated by the upcoming monsoon and cyclone season due to deteriorating conditions in the settlements, while violent clashes spike in Myanmar

 More than **730 000** Rohingya refugees have crossed the border into Bangladesh

 **695 000** people are severely food insecure

 **574 000** people who live in makeshift accommodation are at risk of cyclones, heavy rain and landslides

Risk overview

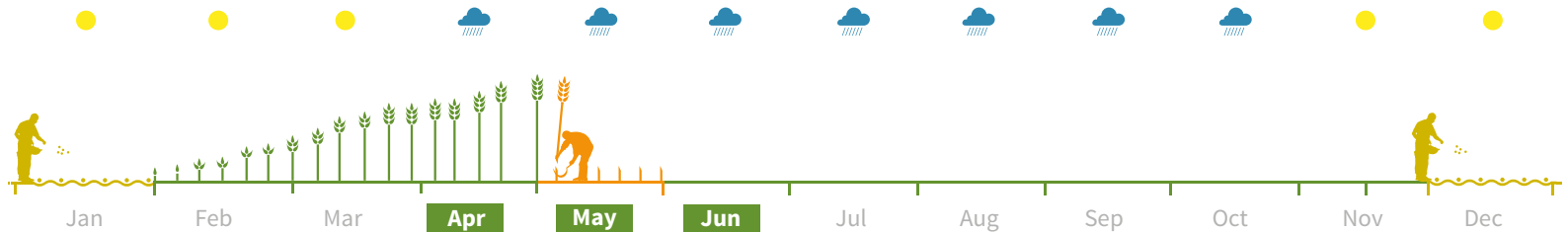
- As of August 2017, more than 730 000 Rohingya refugees have crossed the border into Cox’s Bazar, Bangladesh to flee violence in Myanmar. This has increased the area’s refugee population to almost 1 million people. Over the past two years, land has become eroded due to deforestation and shelter conditions have slowly deteriorated, leaving vulnerable groups exposed to climate shocks such as heavy rainfall, landslides and tropical cyclones. As of March 2019, heavy rainfall and strong winds have been reported in the area, a month earlier than usual.
- To date, more than 695 000 people are severely food insecure due to limited financial and physical access to diverse foods and unavailability of cooking fuel. While some 860 000 refugees regularly receive food assistance, only 240 000 manage to diversify their diet beyond the minimum package of rice, lentils and oil.
- The rapid population influx has affected the livelihood activities of more than half a million Bangladeshi living in the area. Deforestation and growing demands on natural resources has led to many host families losing access to previously farmed lands and forest resources. Inflation has increased and daily wages have decreased due to the higher supply of unskilled labour, contributing to growing resentment and intercommunal conflicts. Hostility towards humanitarian workers has similarly increased.
- Infrastructural challenges have also emerged. Most bamboo structures in the camps are in desperate need of replacement and there is a lack of sufficient, suitable land to establish evacuation

centers. The International Federation of Red Cross and Red Crescent Societies (IFRC), estimates that 574 000 people are at risk, with only makeshift accommodation to protect them.

- Plans to relocate more than 100 000 refugees to Bhashan Char, a silt islet exposed to extreme climatic events, are being developed. As of March 2019, the Government of Bangladesh announced its plans to move 23 000 families to the area by 15 April 2019. According to the United Nations Special Rapporteur, Yanghee Lee, the repatriation of the Rohingya to Myanmar is unlikely to happen in the near future.
- As of January 2019, intense fighting in Myanmar’s southern Chin, Rakhine and Shan states has prompted 11 100 people to flee across the border into Bangladesh’s Chittagong Hill Tracts. In response, the Bangladeshi Government informed the United Nations Security Council in late February that it cannot accommodate any more refugees from Myanmar.

Potential impact

- The combination of the upcoming cyclone season (April–May) and the monsoon season (May–September) presents an additional risk to an already highly vulnerable situation in Cox’s Bazar. While a normal monsoon season is forecast, tropical cyclones make landfall in Bangladesh nearly every year. This raises grave concerns due to the extreme exposure of the area caused by continued deterioration and over-crowding of the



FAO and partners are carrying out several activities to support vulnerable people in Cox's Bazar, Bangladesh and Northern Rakhine, Myanmar. Upscaling these activities is crucial ahead of the upcoming cyclone and monsoon seasons in order to save the lives and livelihoods of vulnerable displaced people and host communities in Cox's Bazar, and vulnerable communities remaining in Northern Rakhine.

settlements. In particular, 82 percent of Rohingya refugees living in congested and degraded shelters are the most at risk. In the event of heavy rains, landslides or a cyclone, it is foreseen that refugees residing in vulnerable areas could become isolated from essential services and lose their shelters, potentially instigating the spread of waterborne diseases.

- If 100 000 Rohingya refugees are relocated to Bhashan Char, this also presents a new risk. Even a relatively low-category cyclone is a threat, as the island sits just above sea level and is in the historical path of cyclones.
- As the monsoon season progresses, tensions between host communities and Rohingya refugees are likely to intensify. The needs of host communities will need to be further addressed within response efforts to avoid instability and the potential reduction of the humanitarian space.



Recommended early actions

Energy and natural resources

- Continue and expand the distribution of LPG gas stoves in displacement camps to ensure access to fuel during the monsoon season and halt deforestation driven by firewood extraction.

Fisheries and aquaculture

- Continue supporting the development of inland aquaculture farms to increase food availability, and reinforce the dykes of aquaculture ponds ahead of the monsoon and cyclone seasons.
- Conduct safety-at-sea training for fishing communities to prevent potential risks associated with the monsoon and cyclone seasons.

Food storage

- Continue the distribution of waterproof food storage drums for the safe storage of food rations and valuable items to both refugee and host communities.

Land stabilization

- Continue to operate tree nurseries and tree planting for land stabilization to prevent landslides.

Partnership

- Reinforce distribution points to ensure the continuation of support to vulnerable displaced people and host communities by humanitarian actors during the monsoon and cyclone season.

Ethiopia

Displacement induced by clashes coupled with poor rains in southeastern pastoral areas to worsen food security situation

 **8.1 million** people food insecure

 **3 million** people internally displaced, **80 percent** of which displaced in 2018

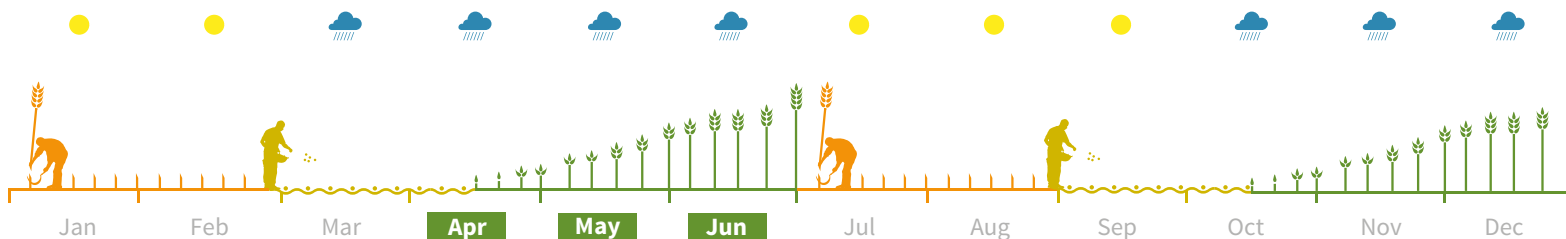
Risk overview

- While efforts are still focused on responding to the needs of drought-affected populations, there are 3 million IDPs, 80 percent of whom were displaced in 2018 when intercommunal clashes over natural resources triggered increased displacements along the Southern Nations, Nationalities and Peoples' Region (SNNPR) and Oromia border, the Benishangul Gumuz-Oromia border and between the Amhara and the Qemant communities. Parts of the Oromia-Somali, as well as Afar-Oromia boundaries and the Tigray region, remain volatile.
- According to the Famine Early Warning Systems Network (FEWS NET), Crisis levels of food insecurity (IPC Phase 3) are expected in the pastoral northern Afar region due to consecutive poor rainy seasons, and the pastoral southern Somali region due to the lingering effects of the 2016/17 drought, poor *Deyr* rains (October–December) and widespread displacements. Severe food insecurity (IPC Phase 3) are also projected in the areas of Oromia, SNNPR, Somali and Benishangul Gumuz due to ethnic clashes, and in East Hararghe and West Hararghe zones in Eastern Oromia due to erratic *Kiremt* rains (June–September) as well as increasing levels of displacement.
- In Addis Ababa, maize prices have declined by 5–10 percent between October 2018 and January 2019 as the *Meher* harvest increased supplies. Prices of wheat, partly imported, declined in January 2019 but remained more than 30 percent higher

compared with the previous 12 months due to the depreciation of the local currency. In 2018, prices of livestock increased in the southern Somali region due to generally improved animal body conditions and lower supplies resulting from severe losses during the 2016/17 drought. Due to increasing livestock prices and generally stable cereal prices, the terms of trade for pastoralists improved in 2018. However, these food access gains are largely potential, as herders are engaged in repopulating their herds.

Potential impact

- The food security situation is likely to deteriorate in northeastern Amhara, southern Tigray, and in parts of SNNPR and eastern Oromia, where below-average and erratic *Kiremt* rains (June–September) and intensified clashes among communities resulted in reduced *Meher* harvest (October–December). Significant crop production shortfalls are reported in East and West Hararghe zones in eastern Oromia, where yields were affected by prolonged dry spells during both the *Belg* (February–May) and the *Kiremt* rainy seasons, and agricultural operations were disrupted by displacement.
- Pasture conditions are below average in several northern pastoral areas of the Afar region, where the *Karan/Karma* rains (July–September 2018) were limited. The forecast average to above-average *Diraac/Sugum* rains (March–May) in the Afar



Early action in Ethiopia is crucial to prevent a further deterioration of the food security situation, particularly in areas affected by intercommunal clashes and dry conditions.

region and the *Gu/Genna* rains in southeastern pastoral areas are expected to have a positive impact on rangeland resources and livestock conditions.

- Due to limited livelihood opportunities, displaced households and vulnerable populations directly affected by the insecurity are expected to remain highly reliant on humanitarian aid.



Recommended early actions

Assessment

- Monitor food security and nutrition situation (e.g. markets, cropping, livestock body conditions, pasture, etc.)

Crops


- Distribute vegetable and nutrient dense, drought-resistant seeds and related agricultural inputs to host communities and IDPs in Amhara, Oromia, SNNPR and Tigray regions, along with trainings and social behavior change communication.


Livestock


- Provide supplementary feed and veterinary support to protect core-breeding animals and improve milk production during the dry season (June–September), targeting the most affected pastoralist households in the Somali and southern Oromia regions, and SNNPR.
- Facilitate and advise for commercial destocking.

Somalia

Worsening food security outcomes through June 2019 due to below-average seasonal rainfall in *Deyr* 2018, potential below-average rains for *Gu* 2019 in central coastal areas, protracted conflict and lingering impacts of previous shocks

 **1.5 million** expected to be in Crisis (IPC Phase 3) or worse through June 2019

 More than **903 100** children likely to be acutely malnourished through December 2019

 **2.6 million** internally displaced people

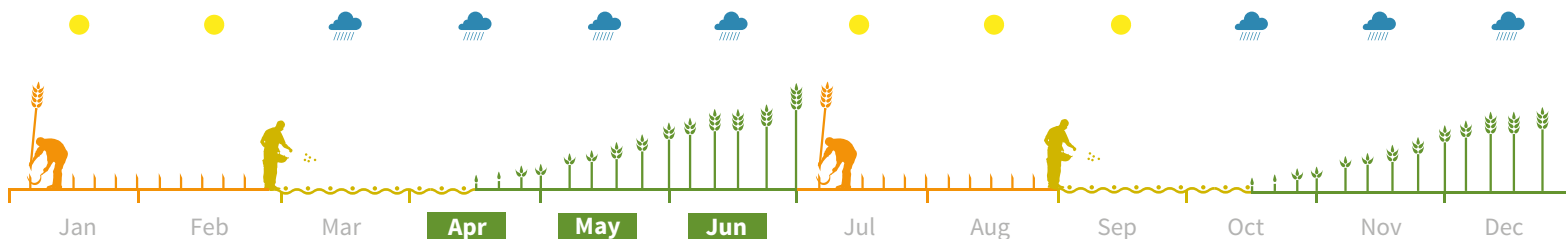
Risk overview

- Steady improvements in Somalia’s humanitarian situation since the severe 2016/17 drought show signs of reversal, based on latest 2018 *Deyr* seasonal assessment findings. This is attributed to the impact of below-average and erratic 2018 *Deyr* rains (October–December), large-scale destitution from the 2016/17 drought and protracted displacement (affecting more than 2.6 million people), among other factors.
- More than 1.1 million people faced Crisis (IPC Phase 3) or worse levels of food insecurity in January 2019. This figure is expected to increase to 1.5 million people through June 2019. Some 903 100 children are likely to be acutely malnourished through December 2019.
- The output of the 2018 *Deyr* cereal harvest, gathered in early 2019, was estimated to be similar to the poor 2017 cereal production and 22 percent below the 1995–2017 average.
- According to GIEWS, maize and sorghum prices were about 20 percent lower compared with the same period last year, mainly due to the above-average 2018 *Gu* harvest and sustained food assistance. Livestock prices also remained average to above average due to improved livestock body conditions resulting in favourable livestock-to-cereal terms of trade.
- The latest forecast by the Greater Horn of Africa Climate Outlook Forum anticipates average 2019 *Gu* rainfall over most of the country, except coastal areas of central Galgadud, Mudug, Middle

Shabelle and Nugaal regions, which are likely to experience below-average rains. Localized flooding along the Juba and Shabelle Rivers is likely where embankments are weak or broken.

Potential impact

- Projections through mid-2019 indicate a deterioration in food security outcomes, both in terms of number of people affected and geographic spread:
 - 4.9 million Somalis are expected to be Stressed (IPC Phase 2) levels of food insecurity through June 2019 – an increase of 300 000 people compared with the second half of 2018. This includes 1.5 million people experiencing Crisis and Emergency (IPC Phases 3 and 4).
 - IPC Phase 4 outcomes persist along the northwest coast in Guban Pastoral, while areas in IPC Phase 3 expand from Sool and Sanag to the east (Bari and Nugal) and west (Awdal, Togdheer and Woqooyi Galbeed). Food security is foreseen to deteriorate to Crisis levels (IPC Phase 3) in three pastoral and agro-pastoral livelihood zones: Addun Pastoral (Mudug and Galgadud); Southern Agro-pastoral (Hiran) and Low Potential agro-pastoral (Bay and Bakool).
 - The acutely food insecure population comprises of rural (40 percent), internally displaced (34 people) and urban (26 percent) people.



Targeted early actions could mitigate the impact of below-average seasonal rainfall in *Deyr* 2018 and potential below-average rains for *Gu* 2019 on agricultural production and food security among the most vulnerable affected households in Somalia.

- The forecast average 2019 *Gu* rains in most of the country are likely to result in improved food security outcomes from May–June onwards. In the coastal central areas, where below-average rains are forecast, seasonal food security improvements will be limited due to reduced crop and livestock production. Forecast below-average rains in lower parts of coastal central and adjacent areas in Middle Shabelle will reduce agricultural employment opportunities among poor households, impacting their food security. Clashes over scarce resources may erupt.

Recommended early actions

Crops

- Mitigate crop losses from plant pests and diseases, including fall armyworm, through surveillance.
- Promote large-scale awareness raising and training on early detection, reporting and control plant pests and disease.
- Provide cereal seeds and pulses to support households already affected by the poor 2018 *Deyr* rains and preposition strategic stocks of fast-maturing cereal seeds and pulses should replanting be necessary.
- Provide farmers with vouchers for irrigation hours to compensate for below-average rains.
- Provide Purdue improved crop storage bags to minimize post-harvest losses and maximize seed stocks for the following season.

Fisheries

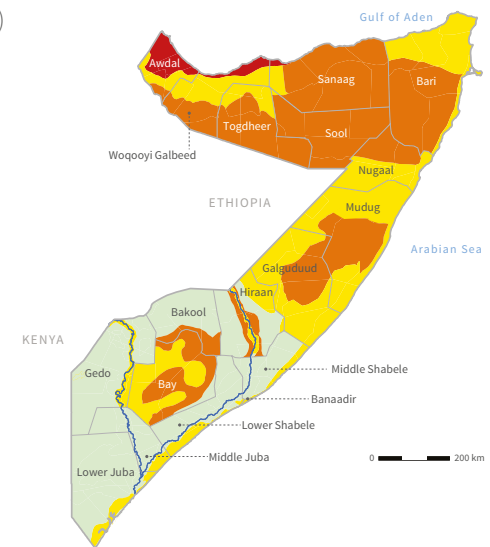
- Promote fish consumption including through the preservation (i.e. drying) of fish.

Livestock








- Improve water-holding infrastructures (e.g. berkads). Where not present, preposition collapsible water tanks (i.e. water bladders) and animal feed.
- Promote construction of simple household-level water harvesting structures.
- Conduct livestock vaccination (i.e. contagious caprine plueropneumonia) and treatment campaigns.
- Promote commercial destocking based on market trends, prices and forecast climate conditions.
- Promote food preservation and related processing to increase shelf life of food sources that otherwise would be wasted.

Acute food insecurity situation

(February–June 2019)



IPC phase classification

 Famine	 Crisis	 Minimal	 Insufficient data
 Emergency	 Stressed	 Not analysed	

Source: IPC, February 2019



Mauritania

Dry conditions affect vulnerable pastoralists in southwestern Mauritania for two years in a row



Over **606 000** people to face food insecurity (CH Phases 3 to 5) between June and August



Risk overview

- Despite the generally positive 2018 rainy season, for a second year in a row poor rainfall was recorded in various pastoralist areas of southern Mauritania, as well as across the border in northern Senegal. In particular, the *wilayas* (regions) of Assaba, Brakna Trarza and Tagant were affected by limited rainfall and therefore poor pasture generation and availability of water.
- This has led to the early transhumance of pastoralists from the affected areas, and at the beginning of 2019 large concentrations of animals were registered in Gorgol and Guidimakha *wilayas*, which is putting pressure on local pasture and water resources.
- At national level, pasture development conditions were assessed as good in the agropastoral zone. However, the overall forage production is estimated at 3 million tonnes of dry matter against the 8 million tonnes estimated needs, for an overall forage deficit of about 5 million tonnes.
- CH projections for the peak of the lean season (June–August 2019) indicate that an estimated 606 647 people will be affected by severe food insecurity (CH Phases 3–5), which is above the average of the last five years.
- Thanks to favourable rainfall conditions and the timely provision of inputs by the Government, the overall 2018 cereal production is estimated at about 338 000 tonnes, which is about 13 percent above the previous year and 5 percent above the average of the last five years.



Potential impact

- Global acute malnutrition rates continue to be high in children aged 6–59 months and above the World Health Organization emergency threshold of 15 percent.
- The months from April to June correspond to the peak of the lean season for pastoralists, as well as to the start of the main lean season for agropastoralists. The livelihoods of vulnerable pastoralists in areas affected by poor pasture conditions might further deteriorate, as dry conditions may affect animals' body conditions, worsening animal-to-cereals terms of trade for pastoralists, and may also lead to increased morbidity and mortality.
- The poorer conditions of livestock could reduce the availability of milk at household level next month, which is a precious nutrient for children under five years of age.
- The deterioration of pasture conditions and water availability might lead to a higher concentration of animals in areas where resources remain, such as Guidimakha, potentially leading to increased conflict and competition over resources. Overall, this could further affect the livestock sector, leading to higher rates of food insecurity and increased needs for livelihood support.



Early action is critical to mitigate the impact of dry conditions of vulnerable pastoralist and agropastoralist communities during the lean season in southwestern Mauritania.

Recommended early actions

Crops

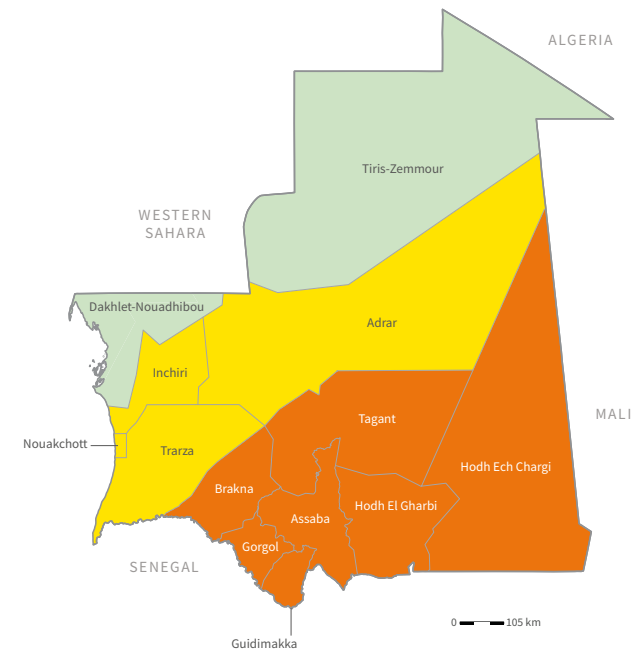
- Support households in the preparation for the next rainy season for increased agricultural production and local availability of fodder in the agropastoralist areas of Aleg, Boghe, Mbagne, Kaedi, Maghama, Mbout, Selibaby, O Yenge and Kankossa through:
 - Provision of local varieties of seeds and agricultural tools.
 - Provision of fodder seeds linked with training on improved cultivation techniques.

Livestock

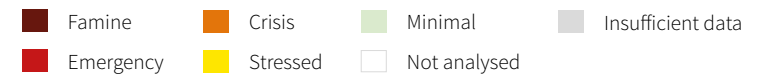
- Support vulnerable households during the peak of the pastoralist lean season (April–May) in Aleg, Maghama, Mbout, Selibaby, O Yenge and Kankossa through:
 - Provision of feed, veterinary services and training for pastoralists on good livestock practice based on Livestock Emergency Guidelines and Standards, particularly on good breeding practices and multinutrient blocks manufacturing techniques.
 - Provision of poultry and feed.

Acute food insecurity situation

(June–August 2019)



CH classification



Source: CH, March 2019

Democratic People's Republic of Korea

Cumulative shortfalls in agricultural production could further exacerbate existing food insecurity issues



11 million people are estimated to be undernourished



Food rations have been halved from **550 grams** to **300 grams**

Risk overview

- According to the Government of the Democratic People's Republic of Korea, food production shortfalls are currently exacerbating food security issues in the country. The decrease in agricultural outputs has been linked to various climatic events, including a heatwave between mid-July and mid-August followed by heavy rains and floods in late August and early September (during the key agricultural growing months from May-September) combined with ongoing sanctions.
- According to the 2019 Humanitarian Needs and Response Plan, an estimated 11 million people – more than 43.4 percent of the population – are undernourished. This is an increase from 10.3 million in 2017. The Global Hunger Index has classified the level of hunger in the country as 'serious' and 'bordering on alarming'.
- From mid-July to mid-August 2018, a heatwave brought high temperatures and below-average rainfall. The Government declared a state of emergency on 2 August 2018 due to the unusually hot weather, with temperatures 11 degrees higher than average. This was quickly followed by heavy rains and flash floods, which further inflicted damage on crops and infrastructure.
- The situation is further exacerbated by the impact of ongoing international sanctions. Since September 2017,

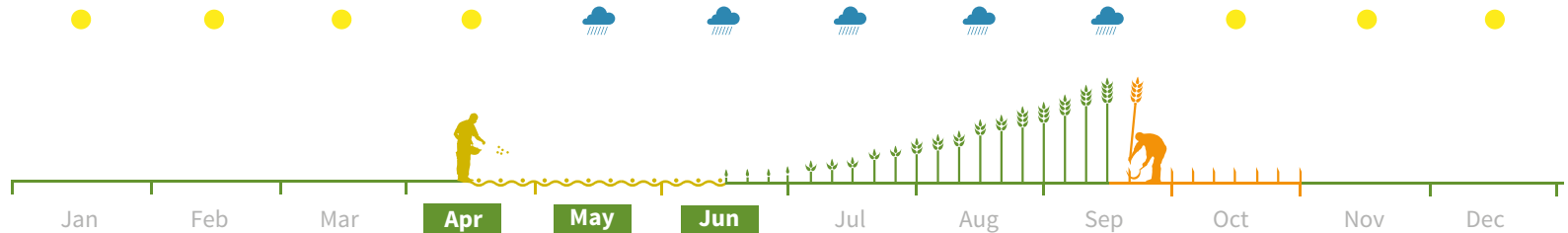
the United Nations Security Council unanimously approved Resolutions 2375, 2371, and 2397 (December 2017) which impose a range of financial and trade restrictions on the country that have also made the entry of aid into the country difficult.

- As a result of the restrictions, the country is currently projected to experience food shortages. From January 2019, daily rations were announced to be reduced from 550 to 300 g per person – which is almost half of what is normally distributed. The Public Distribution System (PDS) is administered by the Government's Food Procurement and Administration Ministry, which determines ration sizes of staple commodities (rice, maize, wheat, barley, or their equivalent in potatoes), cooking oil and pulses. This is based on food production estimates and planned imports.



Potential impact

- The period between February and May 2019 will be a critical period to monitor for agricultural production, as it is critical for winter and spring crop development. Although production during this timeframe is relatively small, it accounts for 8 percent of the total annual cereal output and is vital for food security during the lean season (May-September). Current forecasts highlight that the cumulative snow pack is estimated to be



The expected shortfall in agricultural production may further exacerbate the food insecurity of vulnerable people in the country. Acting early ahead of the planting season can prevent the worsening of the current situation.

below-average. This could constrain critical moisture reserves for winter crop development and limit irrigation water supplies for spring crops, including wheat, barley and potatoes, which are to be planted in March 2019 in time for June 2019 harvest. However, much will depend on weather conditions from March until May, which is a critical period for crop development.

- Any threat to food security can have a serious impact on an already vulnerable population that relies heavily on domestic agricultural production, particularly ahead of the lean season. Households that are directly affected by the shortfall will likely lack sufficient food over the next several months, especially with rations being halved. There is a risk that these households could become food insecure and dependent on PDS. With no surplus to sell or barter, their access to food could be compromised.



Recommended early actions

Crops

- Distribute seeds, inputs and tools to support vulnerable farmers ahead of the planting season.
- Distribute ready-to-install greenhouses to support food production in most food insecure areas.

Livestock

- Support livelihood diversification through the distribution of small stock and animal health treatments to the most vulnerable and food insecure households.




Palestine


Record low funding and political instability to result in deteriorating humanitarian and food security situation



Risk overview



68.5 percent
of households are food insecure in the Gaza Strip



Almost **300** Palestinians killed and over **29 000** injured in 2018



Required funding declined to **USD 534 million** in 2019 from **USD 706 million** in 2015 due to cuts, despite increased needs

- More than one-third of Palestinian households in the West Bank and Gaza Strip are food insecure. Restrictions on the movement of people and goods, and limited access to essential services have had a significant impact on Palestinian livelihoods. Over the last year, sharp contraction of foreign assistance, stalled peace process, continuous conflict spikes at the Gazan border, the deepening intra Palestinian political divide and, more recently, the financial crisis generated by the suspension of revenue transfers contribute to a deterioration of Palestinian living conditions. This has also created increasing instability, higher risks of open conflicts, and a deterioration of the operating environment for humanitarian and developmental interventions.
- In the West Bank, 11.6 percent of households, mainly located in rural areas, is currently food insecure. Restrictions on access to land and water resources are the main challenges facing agriculture-dependent communities, particularly Bedouin and herder communities in Area C.
- In the Gaza Strip, where 68.5 percent of households are food insecure, prolonged restrictions on trade and access to markets for agricultural inputs and exports have deepened the vulnerability of agriculture-based livelihoods.
- Renewed demonstrations have often escalated in violent confrontations along the border with Israel in 2018, marking the most serious surge of violence since the 2014 conflict, with a total of 295 Palestinians killed and more than 29 000 injured. The situation continues to be marred by uncertainty amid a tense political environment that risks deteriorating in a devastating full-blown conflict.
- Electricity and fuel shortages continue to affect the provision of basic services and cripple productive activity in the Gaza Strip. Despite the supply of emergency fuel to the power plant in the last quarter of 2018, chronic energy shortages have had a severe impact on agricultural livelihoods increasing risks and costs of production (water pumping, ice making, poultry farms heating and dairy processing) in an unpredictable market access environment.
- The financial sustainability of the Palestinian government is at risk due to a major deficit generated by the withholding of tax revenues collected on behalf of the Palestinian Authority and the subsequent refusal by the Palestinian government to receive partial payments. As a result, in late February, the Palestinian government started reducing payments to public servants and other public expenditures.
- In December 2018, the humanitarian community launched the 2019 Humanitarian Response Plan (HRP) to assist 1.4 million Palestinians. However, due to funding cuts particularly by the United States of America, the 2019 HRP focuses on the most critical needs. Consequently, the total amount sought decreased from USD 706 million in 2015 to USD 534 million in 2019. The reduction reflects an attempt to prioritize the most urgent needs in the face of record low funding levels. If the required assistance is not ensured for vulnerable households, food insecurity could increase, livelihoods could be irreversibly lost, and families would continue to adopt negative coping mechanisms (such as reducing their food intake, selling assets or cut spending on basics like education and health) to try to keep their heads above water.

Ongoing tensions and cuts to funding call for urgent early action to anticipate further deterioration of the food security situation in the West Bank and Gaza Strip.



Potential impact

- Continued political uncertainty, conflict spikes and tightening of movement restrictions would further hinder the viability of the agriculture sector, reducing production capacities and increasing costs, reducing competitiveness and profitability of agriculture and further deteriorating household incomes.
- Farmers and fishers are particularly impacted by reduced access to natural resources and a variety of agricultural inputs, including certain fertilizers, pesticides, metal pipelines, aluminum rods and materials needed to maintain productive livelihoods. These inputs are considered to be 'dual use items' and therefore fall under Israeli import restrictions, especially in the Gaza Strip.
- A prolonged financial crisis can substantially deteriorate the capacity of the Palestinian government to perform effectively, especially in the Gaza Strip. This can have serious adverse impacts on delivery of public services for producers and consumers as well as cause a further deterioration of the security situation.



Recommended early actions

Advocacy and funding

- Due to the unprecedented drop in funding, which is at an all-time low, there is an urgent need for the international community to identify flexible funding options to address the crisis by providing assistance that reflects both immediate and longer-term outlooks.
- Advocacy is targeted at reducing access restriction on people and natural resources to ensure inputs and services reach target populations.
- Increased coordination with relevant authorities in Palestine and Israel to preserve the operational space of humanitarian actors.

Crops

- Accelerate the installation of solar energy systems to meet critical energy needs for irrigation water pumping, targeting vulnerable small-scale farmers in the Gaza Strip.

Livestock

- Distribute time-critical inputs and assets (i.e. shelters and energy blocks), especially to the Bedouin communities in Area C of the West Bank.
- Distribute animal health inputs (e.g. sanitary kits) among vulnerable livestock raisers in Gaza Strip.



Dry Corridor of Central America

Potential effects of El Niño on the *Primera* season to exacerbate existing vulnerabilities



Almost **240 000** people estimated to be severely food insecure in El Salvador



Almost **270 000** people estimated to be severely food insecure in Honduras



Risk overview

- The 2018 maize production and the *Postrera* season harvest in Central America – El Salvador, Guatemala, Honduras and Nicaragua – are estimated to be similar to average levels. However, the food security situation in the Dry Corridor is increasingly fragile. Losses caused by the drought in the Dry Corridor during the 2018 *Primera* harvest and the damages of the 2018 *Postrera* production – mainly due to floods – have not allowed subsistence farming households to ensure adequate food stocks. This is estimated to result in an early start of lean season – in March instead of May – in certain localities.
- In Guatemala, where the food security situation is considered the most severe in the region according to FEWS NET, subsistence household production from the 2018 *Primera* season located in the western and eastern Dry Corridor of Guatemala was significantly affected by drought. Losses of more than 50 percent of maize and bean crops destined for household consumption have forced families to rely on markets earlier than usual, causing an early start of the lean season.
- The latest IPC analysis (November 2018) indicates that around 179 000 people in the eastern region of El Salvador were classified in Crisis (IPC Phase 3) and 35 000 in Emergency (IPC Phase 4) between December 2018 and March 2019. Between April and July 2019, IPC projection indicate a worsening situation, with 239 000 people in Crisis and 63 000 in Emergency.
- In Honduras, from December 2018 to February 2019, there were 225 000 people in Crisis (IPC Phase 3) and 48 000 in Emergency (IPC Phase 4) in the Gulf of Fonseca region. Furthermore, households in Emergency are likely to have exhausted their assets during March–May 2019. However, the number of food-insecure people is not expected to change significantly.



Potential impact

- The El Niño phenomenon in 2019 is triggering rainfall irregularities during the March–April season in Central America; in certain areas of Honduras and Nicaragua, this has affected the *Apante* season. El Niño effects could affect the start of the *Primera* harvest – the main season for maize and the most important in the majority of countries in the region.
- Currently, price levels are generally above average due to higher input costs, which could worsen net-food consumers' accessibility to food. However, high prices could instigate larger plantings if moisture condition is adequate during the planting period.



Recommended early actions

Early actions are required to prevent and mitigate the potential effects of below-average and erratic rainfall patterns on agricultural production. Key target areas include the departments of Choluteca, El Paraiso and Lempira (Honduras); Usulután and Morazán (El Salvador); Chiquimula, El Progreso, Jalapa and Zacapa (Guatemala); and Estelí, Madriz, Matagalpa and Nueva Segovia (Nicaragua).

Early actions should be implemented to mitigate the impact of current dry conditions and the potential impact of El Niño while strengthening the resilience of vulnerable agricultural households in the Dry Corridor.

Crops

- Provide timely advice to farmers in the Dry Corridor on the expected shift during the first rains due to the El Niño phenomenon, and the need to postpone the sowing period accordingly.
- Promote the use and improve the access to drought-tolerant and short-cycle crop varieties, mycorrhizae and cover crops among vulnerable farming households across the Dry Corridor.
- Train farmers on good practices for soil management in order to mitigate soil erosion and prevent future landslides.
- Encourage the sowing of local crop varieties and the establishment of small home gardens.

Livestock

- Support vulnerable livestock breeders with vaccination and prophylaxis, especially for small livestock, and promote alternative feedstuffs.
- Provide animal feed supplements and promote a reduction in the number of animals per land area/household given the probable shortage of fodder and water.

Monitoring and assessment

- Support national meteorological services to enhance timeliness and usage of forecast tools relevant to farmers.

Water management

- Support the establishment of rainwater harvesting and water storage structures in areas potentially affected by erratic rainfall in order to increase water availability for crops and livestock-related activities.
- Promote water-efficient agricultural practices (e.g. drip irrigation).

Acute food insecurity situation in El Salvador

(December 2018–March 2019)



Acute food insecurity situation in El Salvador

(April–July 2019)




IPC phase classification

 Famine	 Crisis	 Minimal	 Insufficient data
 Emergency	 Stressed	 Not analysed	

Source: IPC, November 2018

Kenya

Risk of below-average rains in areas of eastern Kenya where previous season was poor

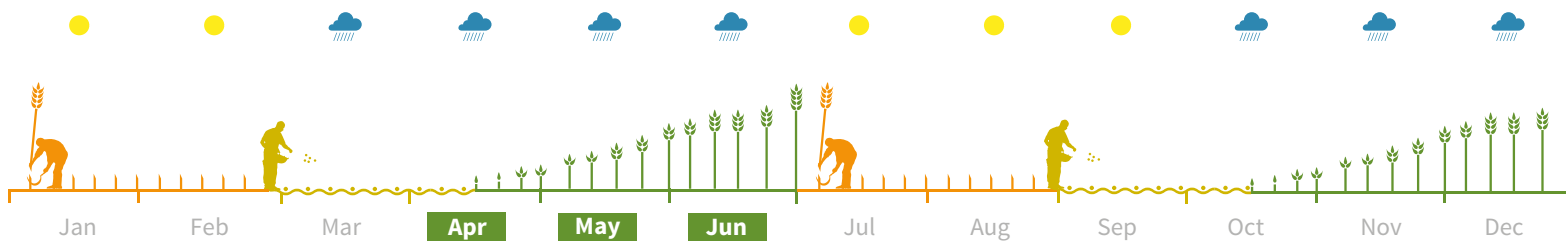
 **15** out of **23** counties in arid and semi-arid areas in "Alert" drought phase

Risk overview

- The performance of the 2018 short rains (October–December) was below average and erratically distributed across several areas of the country. Cumulative rainfall was only 25–50 percent of the average amount across much of eastern Kenya, as well as in localized areas of the West near the border with Uganda. The largest deficits were observed in central-northern areas, where estimates suggest that the rains were only 5–25 percent of average levels.
- Extremely abundant long rains (March–May) had lasting beneficial effects on vegetation across the country and mitigated the impact of the poor short rains on rangeland conditions. However, remote sensing analysis and field reports indicate significant anomalies in several eastern and northern pastoral areas, where poor regeneration of pasture, browsing and incomplete recharge of surface water sources have been reported.
- According to the National Drought Management Authority, as of February 2019, 15 counties out of 23 in arid and semi-arid areas (Baringo, Embu, Garissa, Isiolo, Kilifi, Kitui, Laikipia, Lamu, Mandera, Marsabit, Nyeri, Samburu, Tharaka, Turkana, and West Pokot) were classified in Alert drought phase, while Wajir was

classified in Alarm drought phase. There are major concerns for Garissa, Marsabit, Samburu, Turkana and Wajir counties, where food insecurity and global acute malnutrition levels have been high.

- In January 2019, livestock body conditions among grazers (cattle and sheep) were poor in Mandera, fair to poor in Turkana and Tana River, fair to good in Marsabit, Garissa, and Wajir, and good in Isiolo. Browsers (goats) body conditions were fair to good in Isiolo, Garissa and Wajir, and good in Mandera, Marsabit and Turkana. However, deteriorations are likely in the areas where short rains were particularly poor due to increasing trekking distances to water points.
- Global forecasts (National Oceanic and Atmospheric Administration, International Research Institute for Climate and Society, European Centre for Medium-range Weather Forecasts), as well as Kenya Met, generally indicate an increased probability of average to above-average rainfall across western and northern areas of Kenya and an increased probability of below-average rains in certain southeastern parts of the country.



Targeted early actions could mitigate the impact of possible poor short rains on agricultural production and food security among the most vulnerable affected households in Kenya.



Potential impact

- If below-average short rains (March–May) in certain areas of the country were to materialize, a second poor rainy season could trigger the deterioration of the food security situation.
- Despite poor current pastoral conditions in certain areas, high livestock prices coupled with low cereal prices due to high carryover stocks from the above-average harvest from the long rains are resulting in favourable terms of trade, thus facilitating food access for pastoral households. Close monitoring in Turkana county is required, where livestock prices sharply declined in November–December 2018, but remained similar to the five-year average in January 2019. Field reports indicate increasing livestock supplies on local markets partly due to drought-related distress sales.



Recommended early actions

Assessment

- Closely monitor the food security situation across the region, as well as the performance of the 2019 long rains given that major deteriorations in food security occur after multiple failed seasons.

Crops

- Prevent FAW spread and other pests through pests and diseases surveillance. Promote large-scale awareness raising and training on FAW detection and control.

Livestock

- Strengthen surveillance on animal disease outbreaks.
- Provide fodder and feed to households who each have at least 1–2 tropical livestock units remaining for milk production particularly benefiting women and children under two years of age.
- Build the capacity of livestock associations promoting commercial destocking.
- Carry out emergency animal treatment.



2018/19 El Niño

El Niño event in 2019 likely to impact agriculture and food security in parts of the world



Risk overview

- El Niño is a recurrent atmospheric-oceanic phenomenon associated with an increase in sea surface temperatures in the central tropical Pacific Ocean and a sustained weakening of trade winds.
- The latest official forecasts of March 2019 from the United States Climate Prediction Center (CPC) and the International Research Institute for Climate and Society (IRI) of Columbia University indicate that borderline to weak El Niño conditions have formed during January 2019 and are expected to continue throughout the northern hemisphere spring season. The official CPC/IRI forecast and El Niño advisory, give an 89 percent chance of El Niño prevailing between February and April 2019, and 66 percent chance between May and July 2019.
- The World Meteorological Organization El Niño/La Niña update on 26 February 2019 stated that in January and early February 2019, the ocean temperatures in the tropical Pacific Ocean were at El Niño levels, or just below depending on the thresholds applied. Some El Niño-like atmospheric patterns also emerged around late January. This update also stated that there is a 50 to 60 percent chance that weak El Niño conditions would form during the March to May season.
- Despite the uncertainty, most models and outlooks concur that according to current information, a strong El Niño event is unlikely.



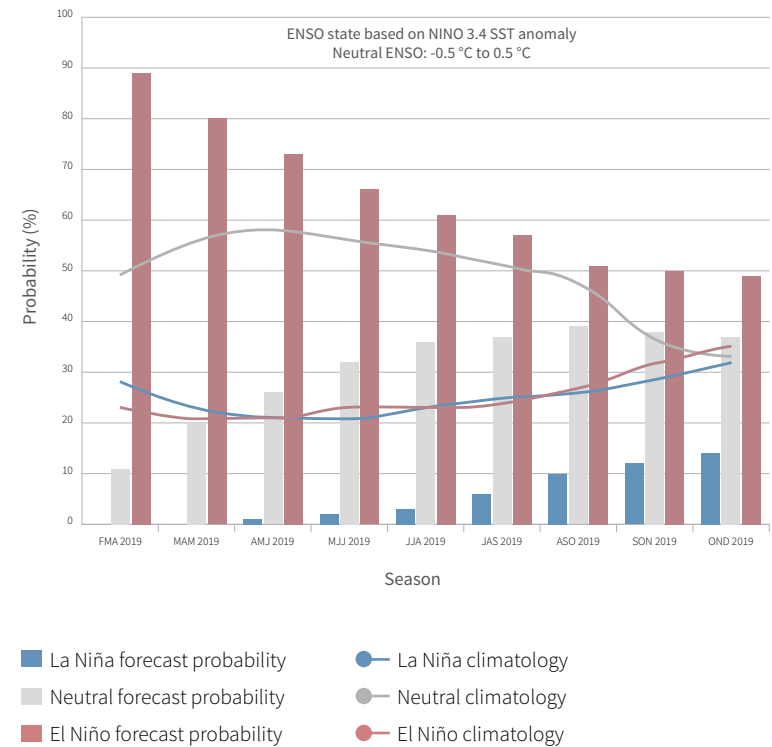
Potential impact

- As a global phenomenon, El Niño can affect the climate system worldwide, resulting in precipitation anomalies that may affect agricultural production, especially if they coincide with critical stages of crop and pasture growth. Weak El Niño events can still have significant impacts at country level. Close monitoring of local and regional forecasts is strongly advised. Moreover, given that some of these regions are still recovering from extended dry periods or are currently suffering from flooding, a further continuation of extreme weather events would greatly limit recovery and exacerbate existing vulnerabilities, with serious impacts on food security.
- El Niño is typically associated with below-average rainfall in Central America, particularly in the Dry Corridor. The 2019 event is leading to rainfall irregularities during March and April in Central America. In some areas of Honduras and Nicaragua this has affected the Apante growing season (November to March). El Niño could impact the start of the Primera season – the main season for maize and the most important in the majority of countries in the region.
- Across most of Southern Africa, El Niño events typically result in anomalous reduction in precipitation between November and March, coinciding with the main crop-growing season. Since the start of the cropping season in October 2018, dry conditions driven by El Niño have developed, reducing prospects

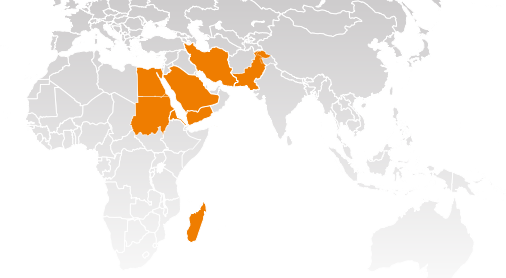
for 2019 cereal production and pasture yields. Some rainfall materialised in early 2019 across most of the sub-region, partly alleviating moisture deficits. However, this has been uneven and is likely to leave many parts of the region still under stress.

- In South Pacific region, El Niño generally triggers drought and above-normal cyclone activity, which can occur concurrently. In the Philippines, El Niño is associated with drier than average conditions. In March 2019, the Philippine Atmospheric, Geophysical, and Astronomical Services Administration (PAGASA) announced that five regions are currently experiencing drought: Ilocos Norte, Maguindanao, Sulu, Zamboanga del Sur and Zamboanga Sibugay. Eleven areas are experiencing dry spells: Aklan, Catanduanes, Ilocos Sur, La Union, Misamis Occidental, Occidental Mindoro, Oriental Mindoro, Palawan, Romblon, Tawi-Tawhave and Zamboanga del Norte. PAGASA has warned that existing drought and dry spell conditions are likely to continue from March to May 2019.
- In areas in which meteorological forecasts converge in indicating significant anomalies in line with the effects of El Niño, FAO recommends early action implementation to mitigate the impacts on food production and food security. In December 2018, FAO initiated early action interventions in the Philippines and in high-risk countries in southern Africa including Madagascar, Malawi, Namibia, Zambia and Zimbabwe to protect the assets and livelihoods of the most vulnerable farmers.

Early-March 2019 CPC/IRI Official Probabilistic ENSO Forecasts



Source: International Research Institute for Climate and Society, March 2019



Locust outbreak

Risk of further spread of desert locust in Eritrea, Iran, Pakistan, Saudi Arabia, the Sudan and Yemen, and of the Malagasy migratory locust in Madagascar



Risk overview

Desert locust

- Good rains along the Red Sea coastal plains in Eritrea and the Sudan have allowed two generations of desert locust breeding since October 2018, leading to a substantial increase in locust populations and the formation of highly mobile swarms. Historically, most locust plagues have originated from the Red Sea coastal plains so effective surveillance and control throughout the year is needed.
- The desert locust situation on the Red Sea coast began improving in late February 2019 as infestations declined in some areas due to intensive control operations. Operations are still in progress against second generation breeding along the Red Sea coast in Egypt, Saudi Arabia, the Sudan, and to a lesser extent, Eritrea.
- Breeding continues in eastern Yemen on the edge of the Empty Quarter in areas that received good rain from cyclones Mekunu in May and Luban in October. From there, adults and at least one swarm have moved to cropping areas in Wadi Hadhramaut.
- In Southwest Asia, control operations are in progress against adult groups and a few small swarms that were laying eggs along the southern coast of Iran in February 2019.

Malagasy migratory locust

- Madagascar is prone to frequent migratory locust crises that affect the livelihoods as well as the food security and nutrition of the population. The last plague from April 2012 to July 2016, threatened 13 million people. Since then, according to information received from the National Anti-Locust Center during the 2016–17 and 2017–18 anti-locust campaigns,

the situation has been calm and in June 2018 remission was confirmed – marked by a complete absence of gregarious populations. However, due to the lack of consistent information received and the suitable weather and ecological conditions, it is likely that the locust populations have increased again in number and density since the end of the last plague.



Potential impact

Desert locust

- There is a potential risk that any desert locust infestations that are not detected or cannot be treated along the Red Sea coastal plains in Egypt, Eritrea, Saudi Arabia and the Sudan, will form additional bands, groups and small swarms of hoppers and adults, as vegetation further dries out during April. Most of these populations are expected to migrate to spring breeding areas in the interior of Saudi Arabia while some could move to the Nile valley in northern Sudan. As one generation of breeding is expected to occur in these areas between March and June, intensive monitoring and control efforts will be required by the affected countries.
- As vegetation dries out in eastern Yemen, additional desert locust populations are expected to arrive in Hadhramaut and central interior areas, and breed if rains fall.
- In Iran, breeding will continue, causing desert locust numbers to increase during the spring, which may extend to southwest Pakistan and continue into June.
- One generation of desert locust breeding is expected to occur south of the Atlas Mountains in Algeria and Morocco, which will cause locust numbers to increase slightly from April to June.

Malagasy migratory locust

- Adults of the third generation of the 2018–19 rainy season should start appearing during the second half of April. Following an increasing number of (unconfirmed) reports of hopper bands in February and early March, it is expected that these adults will form groups and swarms. The situation is expected to deteriorate further in the outbreak area in southwest Madagascar and all efforts should be made to closely monitor it.



Recommended early actions

Desert locust

- Regular monitoring in the spring breeding areas of the desert locust should be maintained from now until at least June.

Malagasy migratory locust

- Ground and aerial surveys to take place at key periods in the development of the Malagasy migratory locust: during fledging of the third generation in April to May, and at the beginning (June) and end (September–October) of the dry and cold season. The later survey is recommended to assess importance and location of adult populations who have survived winter and will breed at the start of the next rainy season 2019–20. The contingency plan should be updated accordingly to prepare the next anti-locust campaign.

Early Warning Early Action
Food and Agriculture Organization of the United Nations (FAO)

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