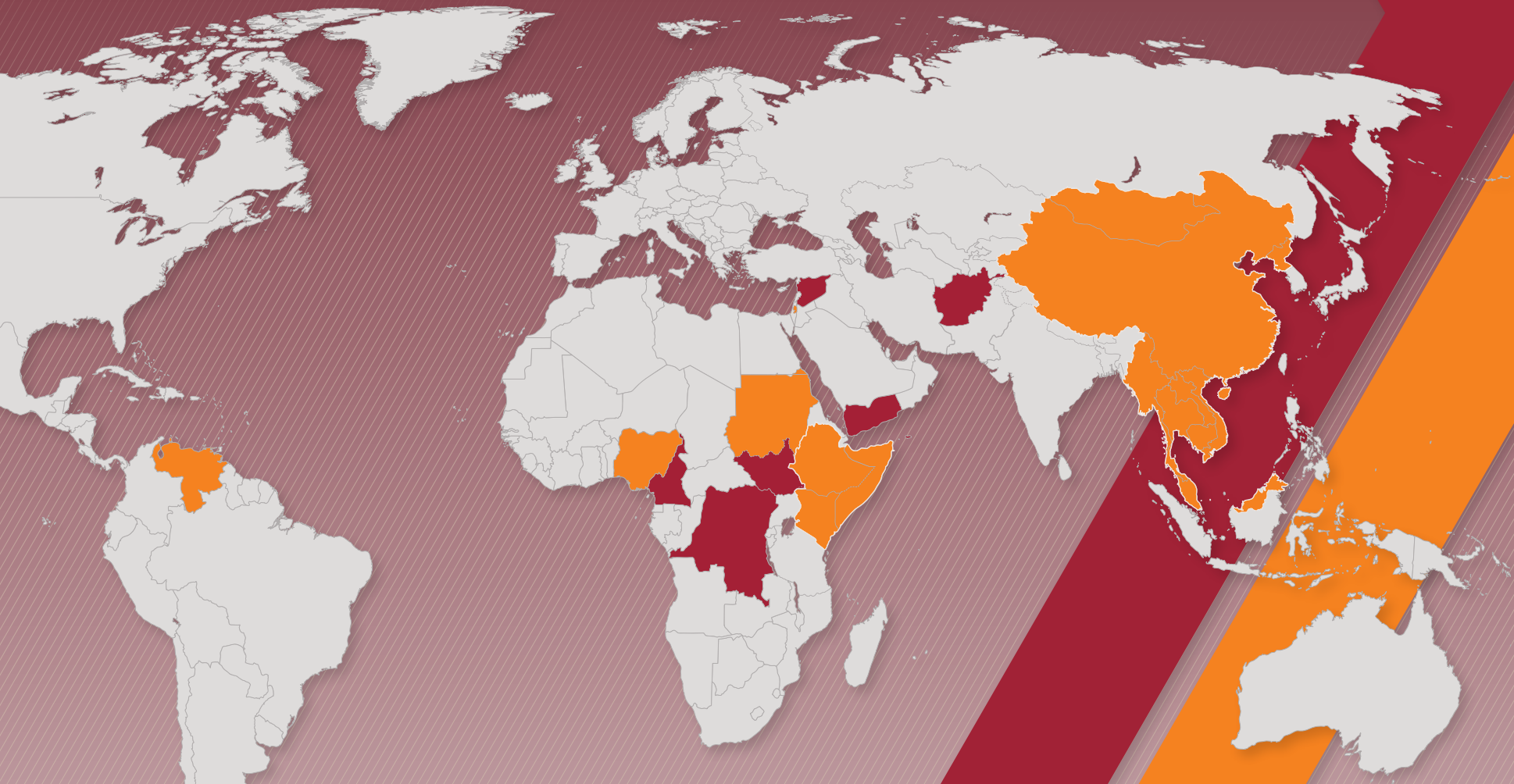
Food and Agriculture Organization of the United Nations

Early Warning Early Action report on food security and agriculture

2019
January–March



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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.

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".

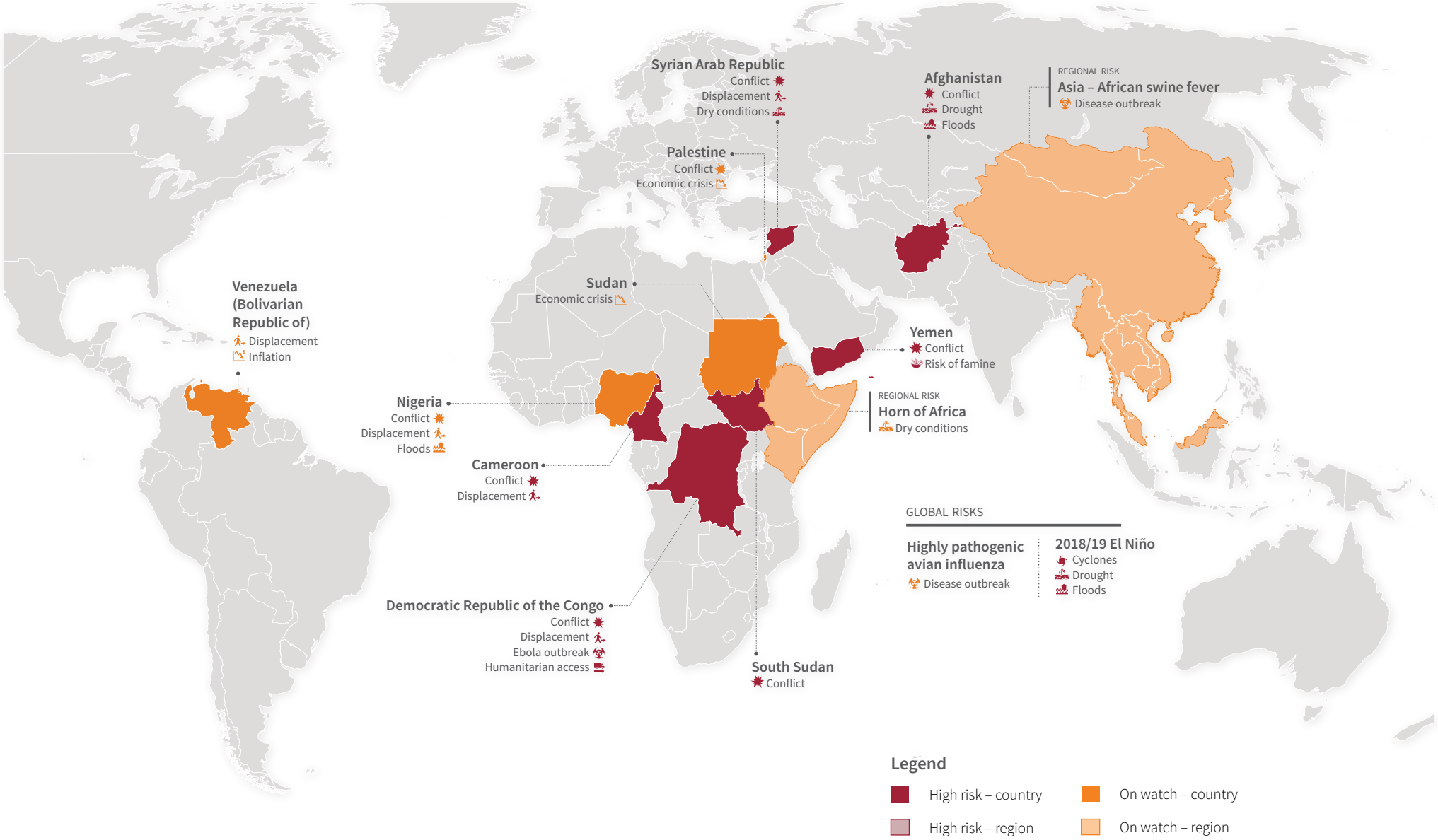
Recommendations for early actions

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

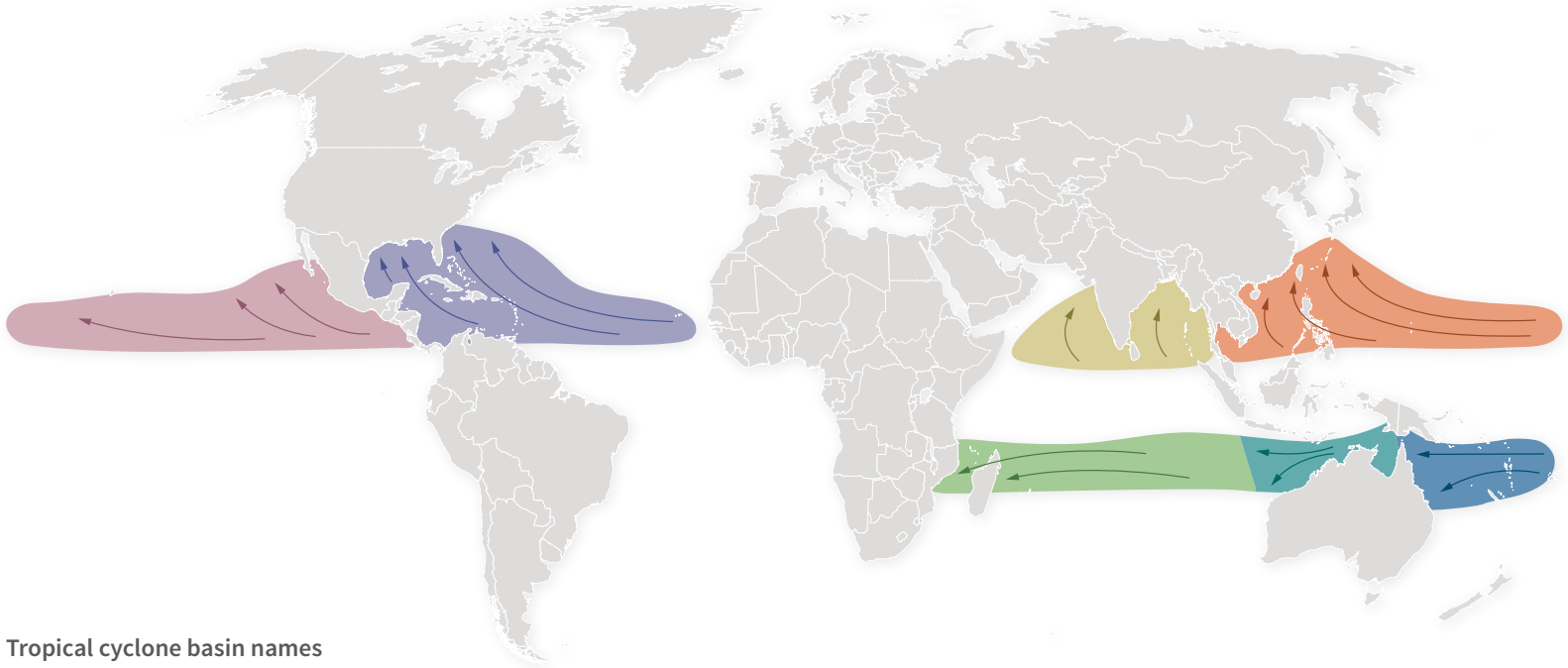
The map on page iii provides a visualization of major disaster risks to food security and agriculture in the indicated reporting period. When a new emergency or deterioration of the current situation is very likely and might have severe impacts, it is indicated as "high risk". In case of moderate to 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: January–March 2019



Cyclone seasonality

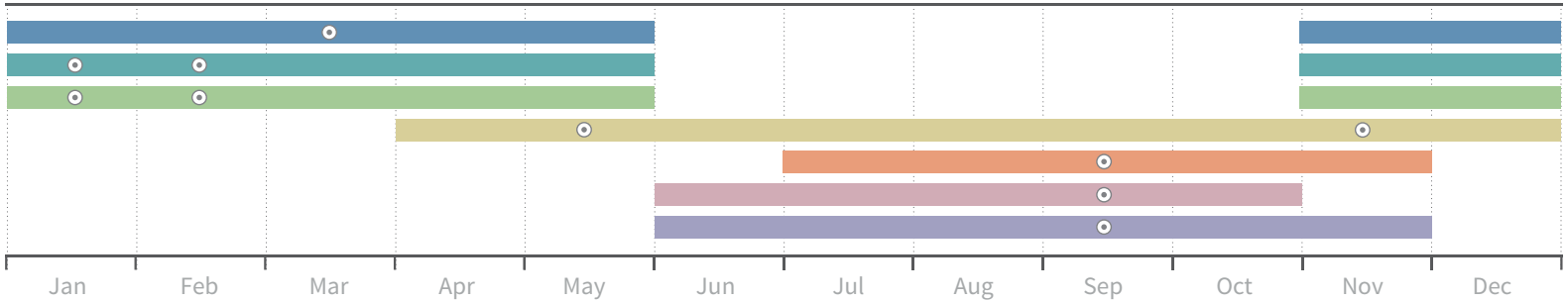
This map provides an overview of the timeline of cyclone formations and their historical tracks. There are seven tropical cyclone basins, with specific peak timings during the calendar year. When available, the seasonal forecast (below- or above-average cyclone activity) is also provided.



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

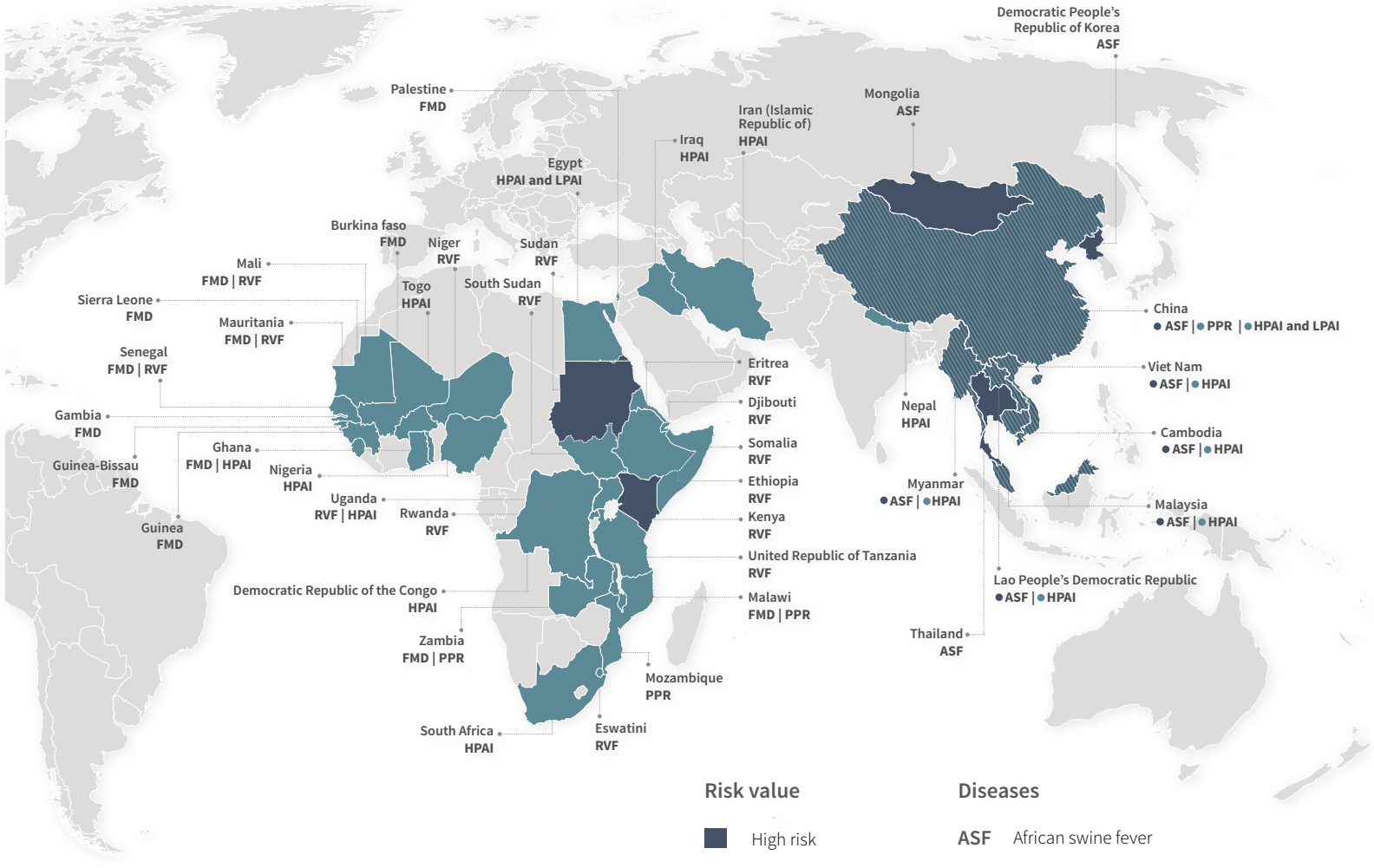


Animal health risks

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. The information used to compile this map was extracted from the Food Chain Crisis Management Framework (FCC) Early Warning Bulletin for the period January–March 2019.

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



Risk value

- High risk
- Moderate risk

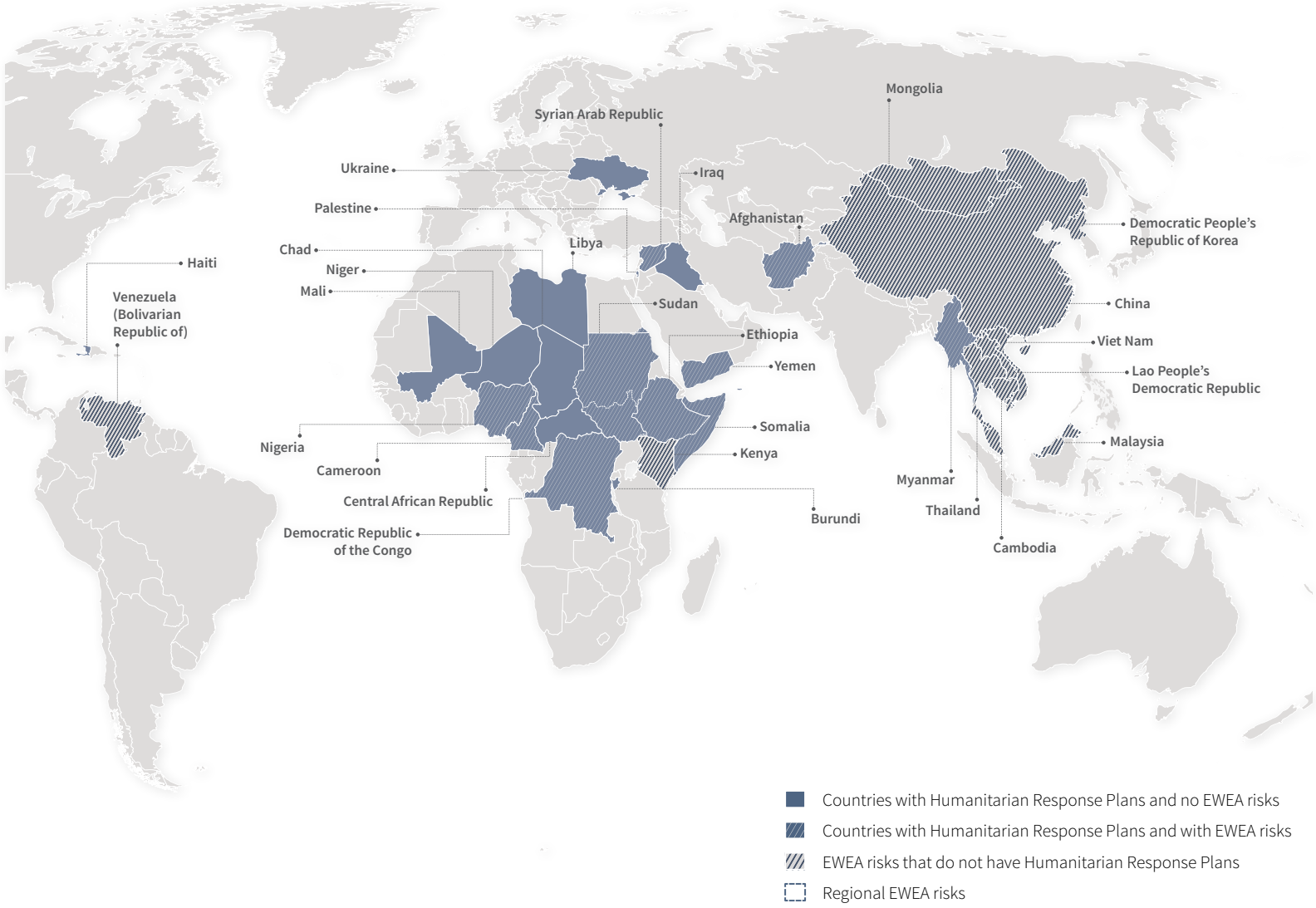
Diseases

ASF	African swine fever
FMD	Foot-and-mouth disease
HPAI	Highly pathogenic avian influenza
LPAI	Low pathogenic avian influenza
PPR	*Peste des petits ruminants*
RVF	Rift Valley fever

The information provided was compiled as of 10 December 2018

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 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

Years of conflict in South Sudan have left the country in a protracted and grave humanitarian crisis. Despite ongoing large-scale humanitarian assistance, it is anticipated that an early lean season is likely to impact food security outcomes in early 2019. Nearly half of the population is likely to be severely food insecure between January and March.

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 January–March 2019, the **high risk** section includes:

- Yemen
- South Sudan
- Democratic Republic of the Congo
- Syrian Arab Republic
- Cameroon
- Afghanistan
- 2018/19 El Niño (Southern Africa, Asia and the Pacific, Latin America and the Caribbean)

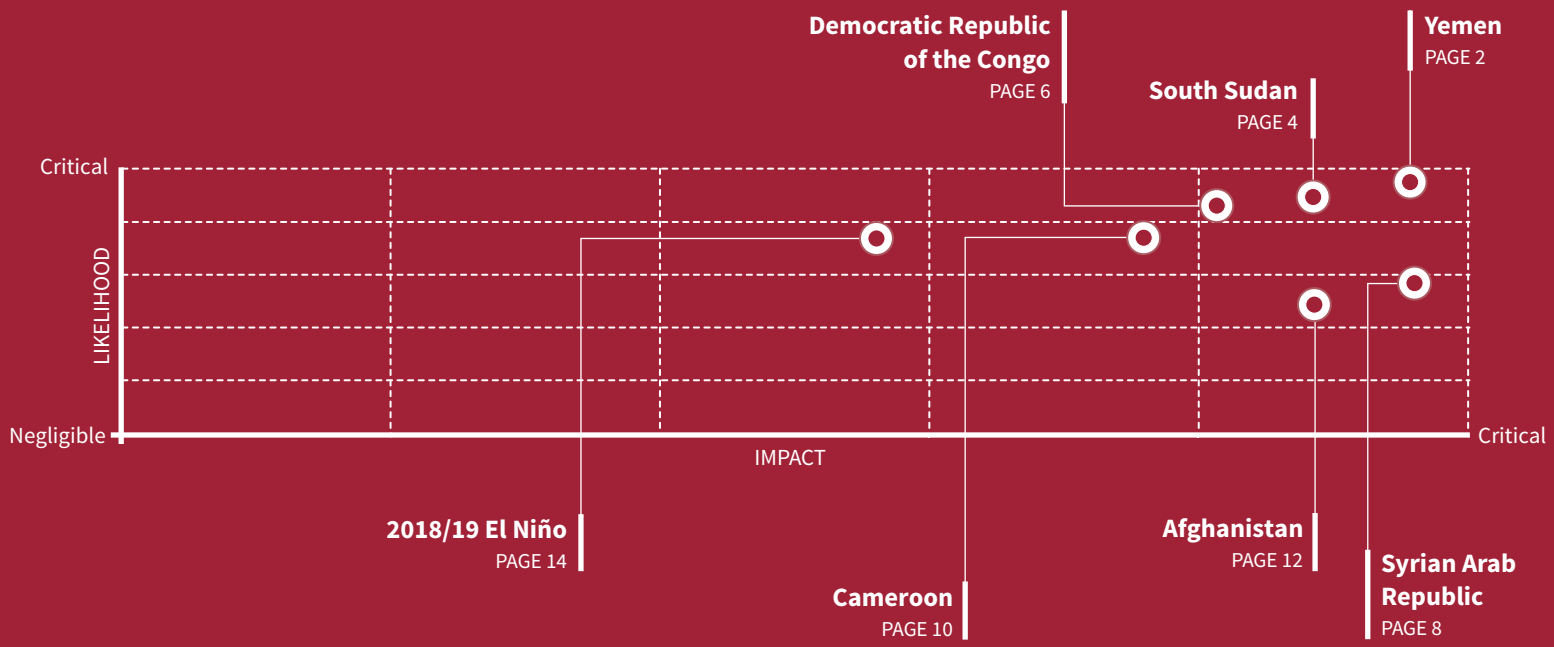


Photo: ©FAO/Albert Gonzalez Farran

Yemen

Deteriorating humanitarian situation has fuelled the risk of famine

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

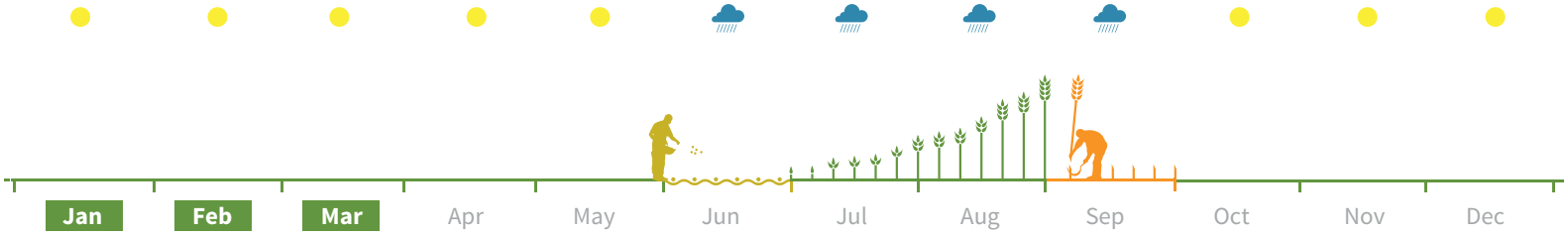
In the absence of Humanitarian Food Assistance, **20.1 million** people (**67 percent** of the total population) would be facing severe food insecurity

Risk overview

- Conflict coupled with an economic crisis are the main drivers of food insecurity in Yemen. The combination of these two elements have resulted in large food gaps, which are only partially mitigated by Humanitarian Food Assistance. This is not sufficient to reverse the continuous deterioration of the situation.
- According to the IPC report issued in December 2018, while accounting for the current Humanitarian Food Assistance levels, 17 percent of the population analysed (about 5 million people) are in Emergency (IPC Phase 4) and 36 percent (about 10.8 million people) in Crisis (IPC Phase 3). Of greatest concern are the 65 000 people in Catastrophe (IPC Phase 5). Overall, this constitutes 15.9 million people (53 percent of the total population). It is estimated 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. This would include 240 000 people in IPC Phase 5 (Catastrophe).
- As of December 2018, warring parties have agreed to ceasefire in Al Hudaydah, which the United Nations Secretary-General stressed is crucial to getting aid to millions of civilians and a "humanitarian stop gap to save lives and turn the tide of war towards peace".
- From October to December 2018, the situation has become more volatile due to the significant devaluation of the Yemeni Rial. In this period, the exchange rate was unstable and ranged between 512 to 727 YR/USD. Currently, the cost of the survival minimum expenditure food basket is about 150 percent more compared with pre-crisis levels.
- Due to the escalation of conflict, more than 3.3 million people are displaced across Yemen. The highest concentrations of IDPs are in Aden, Al Hudaydah, Al Jawf, Amanat Al Asimah, Amran, Dhamar, Hajjah, Ibb, Lahj, Marib, Sa'ada, and Taizz. Out of the total number, at least 2 million people face extreme food insecurity. The situation was further compounded by Tropical Cyclone Luban, which made landfall in Al Maharah governorate on 14 October 2018. Heavy rainfall and flooding displaced more than 3 000 households in Al Ghaydah, Al Masilah, Huswain, Qishn and Sayhut districts and damaged agricultural lands, livestock, fishing equipment and irrigation systems.

Potential impact

- According to a report issued by the Famine Review Committee[1], in the hypothetical case of a complete absence of Humanitarian Food Assistance and limited progress of the actions needed to revert the current deteriorating situation, a number of districts would be classified as Famine Likely.
- Due to the protracted conflict, the economic situation of Yemen will continue to deteriorate. The liquidity crisis and the currency scarcity from commercial banks in the entire country affects the overall economic system, on both supply



Given the high volatility of the context and the expected worsening of conflict, urgent scale up of actions is needed to avoid a further deterioration of the food security situation in Yemen. Activities need to consider an integrated approach, including both humanitarian and livelihoods support, to save lives and maintain or restore livelihoods.

and demand sides. This could result in further price shocks for essential commodities, and therefore would further compromise access to food.

- Data collection efforts in Yemen are hindered by the ongoing conflict and bureaucratic impediments.

Recommended early actions

Advocacy

- Advocate access for and protection of humanitarian actors, farmers, fishers and livestock keepers in conflict-affected areas.
- Advocate for the restoration of fishery livelihoods, rehabilitation of the infrastructure and facilitate access for fishers along the Red Sea cost, which was disrupted since conflict escalation.

Cash

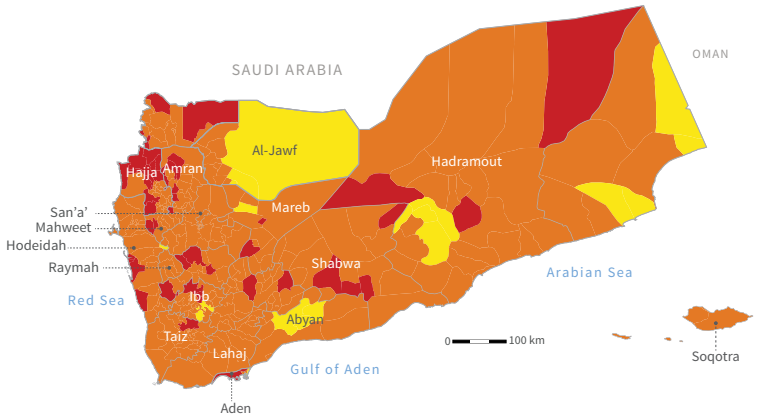
- Strengthen and provide social protection and economic support to vulnerable households by setting up safety nets, access to finance for income-generating activities, or unconditional cash or cash+ transfers.

Monitoring and assessment

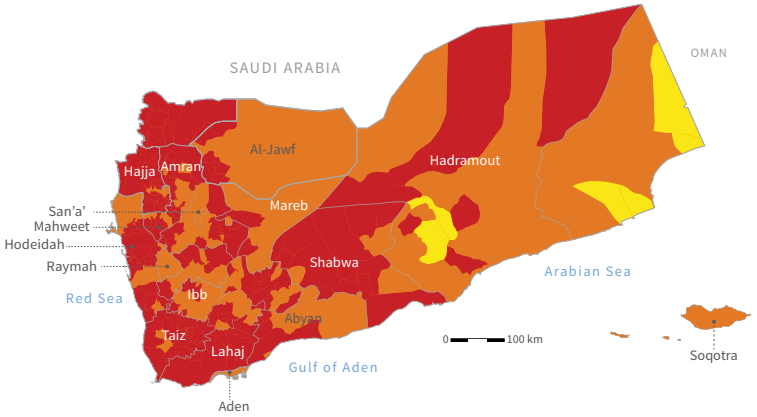
- Monitor the food security and nutrition situation frequently, given the high volatility of the context and expected evolution in terms of conflict. In addition, follow up and monitoring is needed to ensure that Humanitarian Food Assistance reaches the targeted vulnerable populations.
- Conduct nutrition assessment to ascertain the impact of the further more recent deterioration of food security. Sufficient technical, financial, logistics, and administrative support should be provided to the Famine Risk Monitoring, Nutrition Anthropometric and Mortality, and Standardized Monitoring and Assessment of Relief and Transitions surveys.

[1] The IPC Famine Review Committee is an independent board of global food security and nutrition experts who are neutral to the IPC outcome and who have the relevant technical knowledge and experience in the specific crisis context. For more information: http://www.ipcinfo.org/.

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

Early lean season to impact food security outcomes, nearly half of the population to be severely food insecure in early 2019

An estimated **5.2 million** people expected to be severely food insecure

36 000 people potentially facing Catastrophe food insecurity levels (IPC Phase 5)

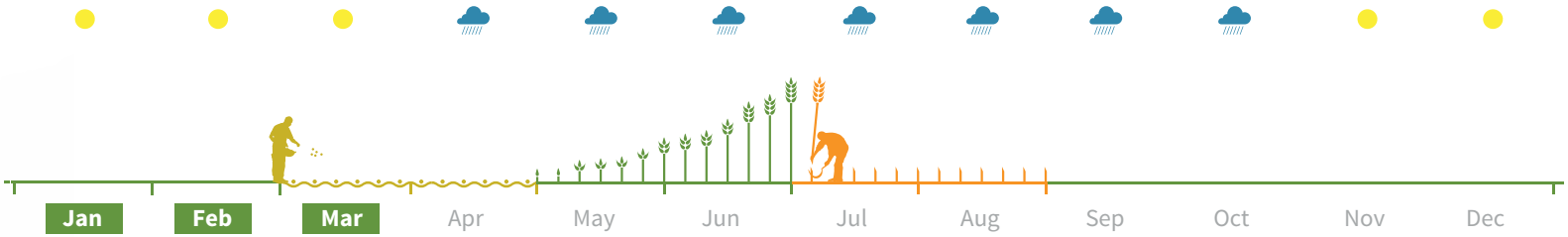
Around **4.2 million** people displaced

Risk overview

- The cumulative effects of years of conflict and violence against civilians in South Sudan have left the country in a protracted and grave humanitarian crisis. Livelihoods have been destroyed and an estimated 4.2 million people forced to flee their homes: there are currently around 1.9 million IDPs in South Sudan and an estimated 3.1 million refugees in neighbouring countries.
- In September 2018 it was estimated that 6.1 million people (59 percent of the total population) were in Crisis (IPC Phase 3) or worse levels of food security at the peak of the lean season (July to August), of whom 1.7 million were in Emergency (IPC Phase 4) and 47 000 in Catastrophe (IPC phase 5). Food security has since improved slightly thanks to recent cereal harvests (October–December) and as a result the number of people in Crisis (IPC Phase 3) or worse decreased to 4.4 million people (43 percent of the total population), with 26 000 in Catastrophe (IPC Phase 5).
- Cropping conditions remain generally favourable in the country and a greater area than last year was planted in most places, thanks to slight improvements in security that led to increased availability of inputs and access to land. While many households are likely to harvest, conflict-related disruptions, reduced household assets and prolonged dry spells will put a strain on vulnerable households and likely induce an early lean season.
- Fall armyworm continues to cause substantial damage, mainly in the maize and sorghum growing areas of the Green Belt, Northern Bahr el Ghazal and parts of Jonglei. An assessment of the potential impact is currently underway.
- Parties involved in the civil war in South Sudan signed a peace agreement in September 2018, following several months of negotiations. However, it remains unclear whether the political process will contribute to improving the country's humanitarian situation in the coming months.

Potential impact

- Despite ongoing large-scale humanitarian assistance, it is anticipated that the lean season – which typically starts in April – will begin earlier. While the November 2018 to January 2019 cereal harvest will initially provide some respite, households could face depletion of critical food stocks by March 2019. As a result, from January to March 2019 food security numbers are expected to increase, with an estimated 5.2 million (49 percent of the total population) people likely to be in Crisis (IPC Phase 3) or worse, of which 36 000 in Catastrophe (IPC Phase 5) in Pibor and Canal/Pigi (former Jonglei state) and Leer and Mayendit (former Unity state). Women and children will continue to be the most affected.
- Many households were unable to harvest in the areas that had been most affected by armed conflict during the March–June 2018 planting season, resulting in the possibility of extreme food insecurity until the next harvest in 2019. Furthermore, possible returns from within and outside the country could increase the pressure on already scarce resources. These returns also pose the



Prompt action is crucial to prevent further deterioration of the food security situation in South Sudan, which is driven primarily by conflict.

risk of spreading Ebola virus disease from the Democratic Republic of the Congo, which would exacerbate existing vulnerabilities.
- There is an expected increase in cattle raiding in the dry season, leading to disease outbreaks due to the unusual movement of livestock.

Recommended early actions

Assessment

- Continue to monitor the food security situation closely, particularly in areas of greater risk such as Pibor and Canal/Pigi (former Jonglei State) and Leer and Mayendit (former Unity State).
- Continue to support surveillance, technical support, and extension services on fall armyworm control and management, using coordinated approaches at country and/or regional level.
- Continue to monitor the security situation on the ground as well as return movements.
- Continue to monitor the risk of an Ebola virus disease outbreak.

Crops

- Distribute livelihood kits, including fast-maturing crops such as cowpea and vegetable seeds, to vulnerable families in lowland areas with access to land and water resources or residual soil moisture from receding floodwater.

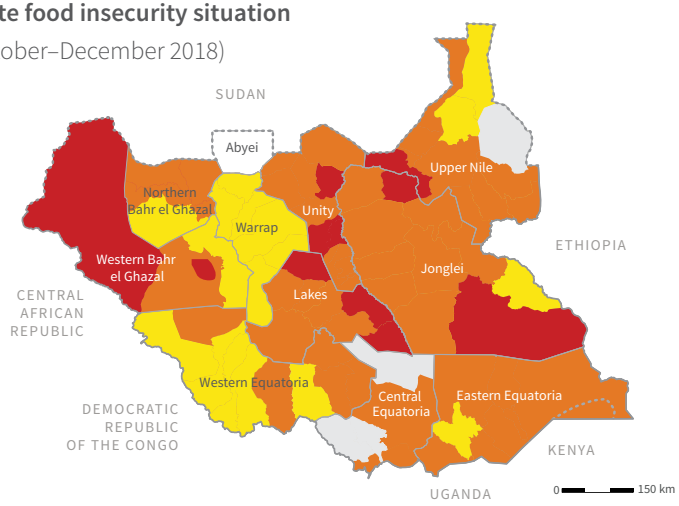
Fisheries

- Distribute fishing kits to vulnerable rural dwellers with access to water catchments.

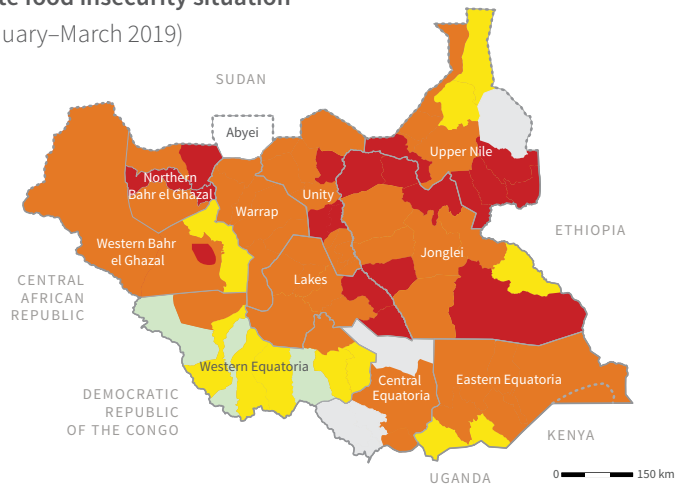
Livestock

- Promote livestock vaccinations during the dry season (December to April).
- FAO to facilitate dialogue on conflict management for pastoralists moving with their livestock internally and from Sudan.

Acute food insecurity situation
(October–December 2018)



Acute food insecurity situation
(January–March 2019)



IPC phase classification

Famine
Emergency
Crisis
Stressed
Minimal
Not analysed
Insufficient data

Source: IPC, September 2018

high risk

Democratic Republic of the Congo

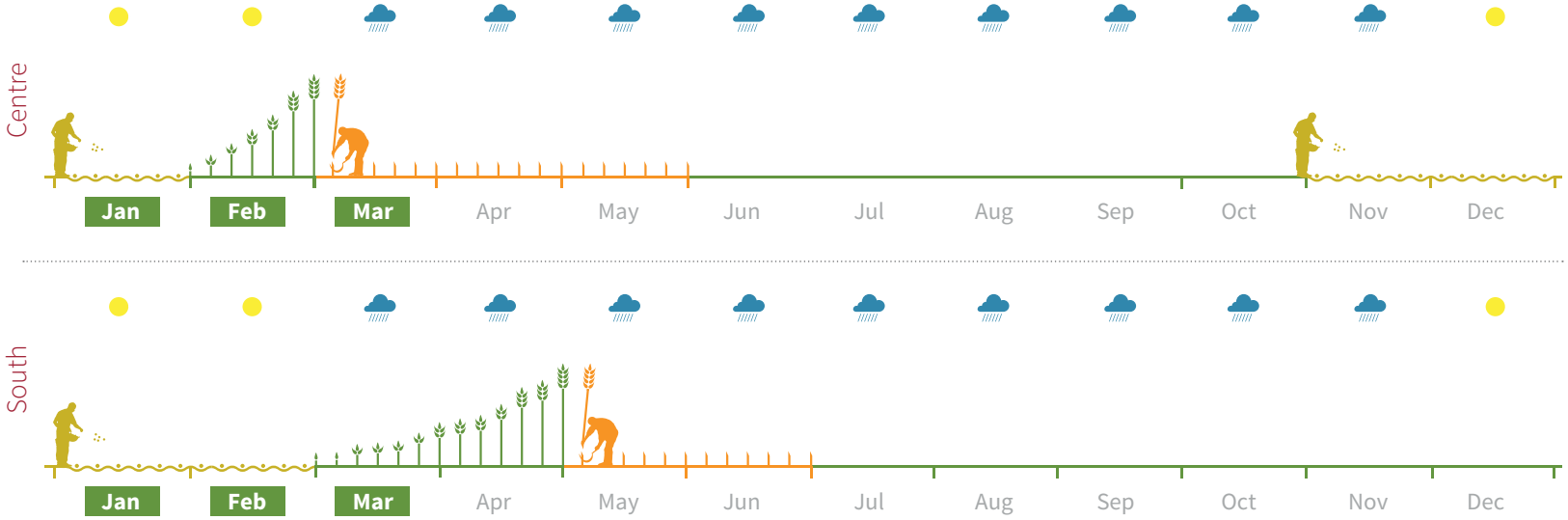
Food security significantly deteriorating nationwide as a result of a complex humanitarian crisis

13.1 million people are severely food insecure of which **3.4 million** people facing Emergency (IPC Phase 4) food insecurity conditions

560 cases of Ebola reported in North Kivu and Ituri Provinces

Risk overview

- The Democratic Republic of the Congo continues to be affected by a countrywide complex humanitarian crisis, with conflict and insecurity as the main drivers affecting food security and livelihoods, resulting in massive displacement and heightened humanitarian needs.
- As of August 2018, about 13.1 million people are estimated to face Crisis (IPC Phase 3) and Emergency (IPC Phase 4) acute food insecurity – double the figure reported in July 2017. Of the recent estimates of severely food-insecure people, almost 3.4 million are in Emergency (IPC Phase 4) and about 9.8 million in Crisis (IPC Phase 3). This represents 23 percent of the rural population of 101 territories, out of the 145. Furthermore, about 6 million children are malnourished and 7.2 million women suffer from anaemia.
- Several factors are at the root of the overall food security deterioration, these are mainly the sharp rise in armed conflict and its impact since 2017, particularly in Ituri and South Kivu, and clashes in Tanganyika and the Kasai.
- Additional risk factors include the increase in food prices, the resurgence of epidemics as well as the influx of refugees and returnees from neighbouring countries. In October 2018, the Kasai, Kwilu and Kwango provinces experienced a large influx of returnees expelled from Angola. As of 3 December, there are nearly 370 000 people who are already registered mostly in the bordering territories of Kamonia and Luiza, putting strong pressure on local resources.
- In the northeastern and central-eastern parts of the country, agricultural season A has started in a context of persistent insecurity. However, the lack of access to agricultural inputs and conflict continue to constrain the resumption of a normal season, particularly for the thousands of returnee households.
- The Ebola virus disease (EVD) continues to affect populations in North Kivu and Ituri provinces. According to the World Health Organization (WHO), as of 1 January 2019, a total 608 EVD cases including 560 confirmed and 48 probable cases, were reported in the two provinces of North Kivu and Ituri. Monitoring and



Food insecurity in the Democratic Republic of the Congo is a result of several drivers including heightened insecurity affecting agriculture-based livelihoods, disease outbreaks and high poverty incidence. In Kasai, Ituri and Tanganyika provinces, early action interventions are key to support the planting season, and to promote diversification of livelihoods and income-generating activities.

investigation of alerts are ongoing in the neighbouring provinces as well as in South Sudan and Uganda. To date, EVD presence in these areas was eliminated.
- General elections took place on 30 December 2018, to determine a successor to the incumbent President.

Potential impact

- The likely below average harvest (January–March 2019) is expected to lead to low food stocks at household level. Consequently, vulnerable households are likely to continue experiencing food access issues and Crisis or Emergency conditions (IPC Phases 3 to 4).
- According to WHO, the EVD outbreak in the Democratic Republic of the Congo remains serious and unpredictable, and is very high at national and regional levels.
- The presence of armed groups coupled with the EVD outbreak in Beni (North Kivu) is likely to continue driving displacements among communities.
- The risk of increased post-electoral violence and insecurity exists and could further destabilize the country.
- The recent influx of returnees from Angola is likely to put further strain on existing vulnerabilities in the Kasai region.

Recommended early actions

Livestock

- Provide small production units (guinea pigs and rabbits) targeting malnourished women and children among the most vulnerable families (returnees, IDPs and host families) to facilitate access to animal protein.

Crops

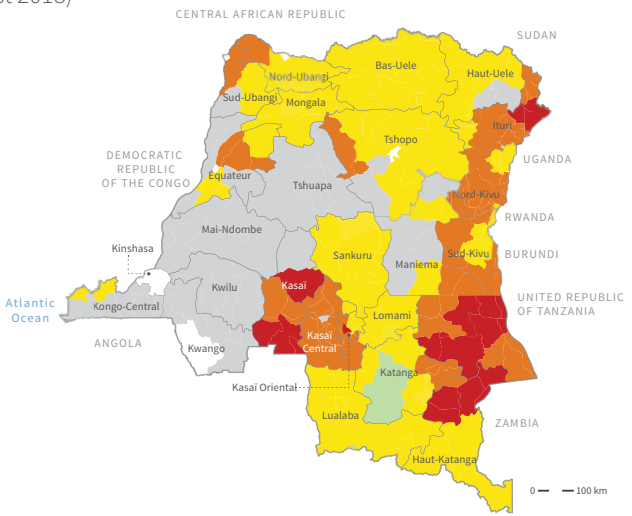
- Support women's associations to put in place vegetable gardens in order to improve access to micronutrients and to promote income-generating activities.
- Support the production of seeds (beans, cowpeas and soybeans) and cuttings of orange sweet potatoes rich in vegetable protein and vitamins in the lowlands in order to facilitate better access to planting material during the sowing season.

Cash

- Conduct cash-based programmes in targeted areas to support the livelihoods of the most vulnerable affected people when and where feasible.

IPC acute food insecurity situation

(August 2018)



IPC phase classification

Famine	Crisis	Minimal	Insufficient data
Emergency	Stressed	Not analysed	

Source: IPC, January 2018

high risk

Syrian Arab Republic

Food access compromised due to a poor harvest and probable Idlib takeover

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

6.2 million IDPs

5.6 million registered Syrian refugees in the region

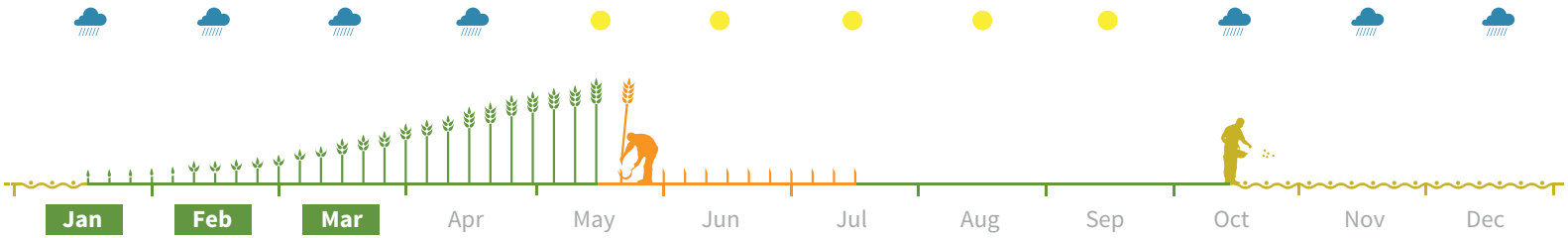
Lowest wheat yield in almost 30 years

Risk overview

- As of September 2018, the number of IDPs in the Syrian Arab Republic was around 6.2 million. In November, 5.6 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. The number of people residing in hard to reach locations declined from 4.1 million in January 2017 to 1.5 million people in July 2018.
- According to a joint FAO/WFP Crop and Food Security Mission (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.
- According to 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. About 1.2 million tonnes of wheat were harvested, the lowest yield since 1989 and about 30 percent of the pre-conflict average of 4.1 million tonnes. Barley production was at 390 000 tonnes, the lowest since 2008. Due to an extended dry period early in the season, large areas of rain-fed cereals failed, and irrigated cereal yields were reduced because of unseasonably late heavy rains and high temperatures.
- On 21 September, Turkey and the Russian Federation agreed on a demilitarized zone along the border of Idlib Governorate – one of the largest areas in the country outside the control of the Syrian Government. Although the agreement could avert the risk of a full-blown offensive by the Syrian army over the short term, risks of an offensive remain very high. Three million civilians are thought to be in Idlib, of which more than 2 million are already in need of humanitarian assistance. The offensive could uproot more than 800 000 people – far more than the number of those displaced in previous assaults.

Potential impact

- Implications for food security from an offensive in Idlib are likely to be very significant, given the high number of food insecure people in the area and potential for large-scale displacement. Coupled with access constraints, this could affect progress in the nationwide food security situation observed in 2018.
- High production costs, lack of quality inputs and damaged or destroyed infrastructure remain the main constraints in the agriculture sector. Some progress has been made on reconstruction of irrigation infrastructure and improved transport of farm inputs and produce. Given the poor cereal



Early actions are essential to mitigate the effects of a poor harvest on food security and to safeguard the livelihoods of the most vulnerable conflict-affected households in the Syrian Arab Republic.

harvest in 2018, seeds are very likely to be in short supply for the 2019 season. Low agricultural production has restricted domestic food availability and could lead to deterioration of food security outcomes in the absence of imports.

- As winter approaches, OCHA estimates that nearly 2.4 million people across the Syrian Arab Republic will struggle to get adequate heating and will require targeted support. This includes tens of thousands of newly displaced people, including those in displacement sites and open areas, those who have been displaced multiple times for long periods and now live in sub-standard shelters, as well as returnees and host communities.

Recommended early actions

Cash

- Conduct cash-based programmes in targeted areas to support the livelihoods of the most vulnerable affected people.

Crops

- Distribute vegetable seeds to the most vulnerable farmers to support backyard food production.
- Reconstruct or rehabilitate irrigation infrastructure.

Livestock

- Provide livestock vaccination and treatment to the most vulnerable households in affected areas.
- Distribute animal feed to the most vulnerable households to limit conflict-driven animal mortality.

Partnership and accessibility

- Advocate for improving farmers' access to cultivated lands in conflict-affected areas.

Cameroon

Escalation of violence in North-West and South-West regions could drive further displacement and a deterioration in food security

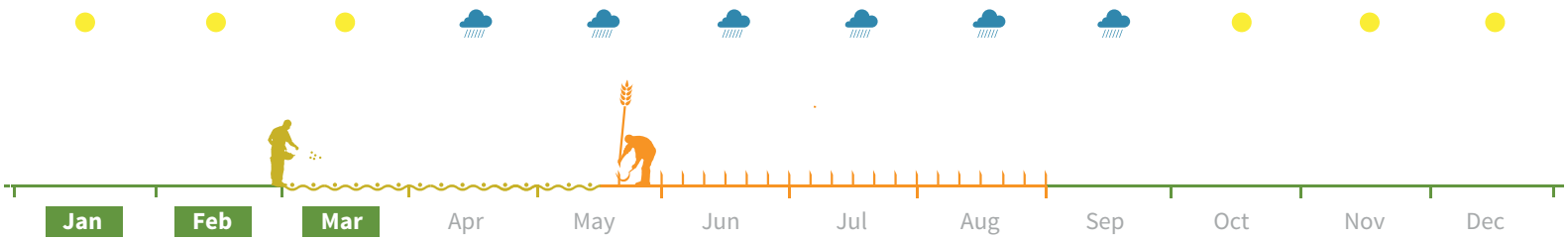
440 000 IDPs in the North-West, South-West, Littoral and West regions

Risk overview

- The ongoing crisis in the Anglophone regions of Cameroon – North-West and South-West – erupted in October 2016 and continues to persist, resulting in displacements and severely impacting livelihoods and food security. As of November 2018, the number of IDPs is estimated at 440 000 in the North-West and South-West as well as in neighbouring regions – Littoral and West.
- Since June 2018, the activities of armed secessionist groups have expanded from the North-West into the South-West region, notably around Buea, Kumba and Mamfe. Attacks were previously confined to remote areas bordering Nigeria and around the North-West regional capital of Bamenda.
- Presidential elections took place on 7 October 2018, which were boycotted by Anglophone populations in certain areas.
- Agricultural activities in the Anglophone regions were severely affected by the civil unrest with subsequent input shortages and the depletion of households' productive assets, including livestock.

Potential impact

- In the case of an intensification of the impact of the crisis in the Anglophone regions, further displacement to neighbouring regions and an increase in humanitarian needs are very likely.
- Although at a low level, cross-border displacement is also to be expected as a result of the militarization of the border with Nigeria.
- Access to health services has been significantly constrained by continued violence and displacement, and will likely result in higher morbidity and mortality rates, with an already high incidence rate of malaria reported among IDPs.
- According to the Famine Early Warning Systems Network, the depletion of food stocks, the decrease in food production, the restrictions on access to land and markets and the adoption of negative coping mechanisms could lead to Crisis food security levels (IPC Phase 3) until September 2019.



Further intensification of violence in Cameroon's Anglophone regions could lead to a severe food security situation and damage to livelihood assets. Early action interventions are therefore crucial.

Recommended early actions

Crops

- Set up market gardening plots for carrot, lettuce, pepper and tomato production, linked with training on nutrition to improve the food security and nutrition of vulnerable populations

Livestock

- Set up small broiler and egg production units to improve the livelihoods of displaced people.

high risk

Afghanistan

Drought has led to a food security crisis across most of Afghanistan and above-average rainfall could lead to flash flooding from April 2019 onwards

10.6 million people are expected to be food insecure over November 2018 to February 2019

Wheat production is **28 percent** below the five-year average

69 percent of farmers reported no seed availability for the next planting season

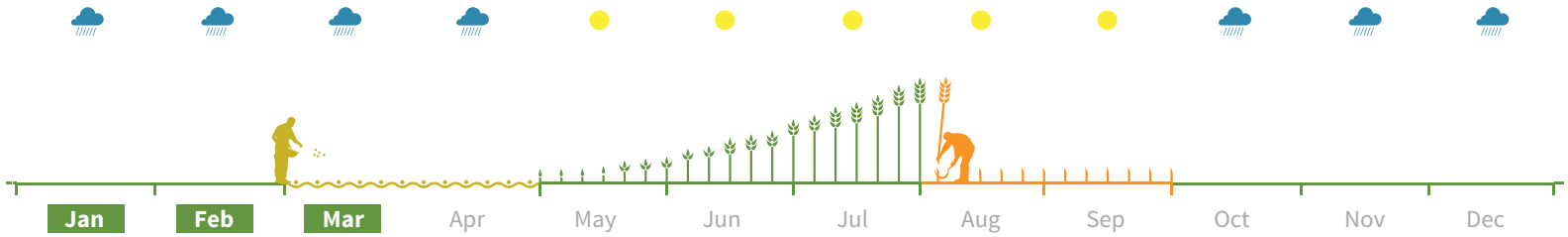
More than **200 000 people** displaced because of drought

Risk overview

- From April to August 2018, an intense drought has resulted in widespread food insecurity across Afghanistan. Due to persistent dry conditions, food production has been limited, particularly wheat which is 28 percent below the five-year average, with a deficit of 2.5 million tonnes. The potential El Niño, which commonly encourages heavy snowfall and rain, is likely to provide some respite to the current situation, however it could induce flooding once the snow-caps melt from April 2019 onwards.
- As of September 2018, about 9.8 million people (approximately 44 percent of the rural population) were estimated to be in Crisis and Emergency (IPC Phases 3 and 4) levels of food insecurity. Of this number, about 2.6 million people are classified as being in Emergency (IPC Phase 4). In the province of Badghis alone, more than 75 percent of the population are in Crisis and Emergency (IPC Phases 3 and 4). The current Crisis and Emergency estimates correspond to a 17 percent increase (from 26 percent to 43 percent) compared with the previous analysis for the same period last year.
- An estimated 69 percent of farmers have reported no seed availability for the next planting season, which begins in mid-October 2018 and runs until April 2019. This could further compound existing wheat deficits from the 2018 season. Furthermore, 48 percent of pastoralists reported reduced livestock productivity and/or animal deaths.
- More than 200 000 people are displaced due to drought, a majority of whom were recorded in Badghis, Ghor and Herat.

Potential impact

- From November 2018 to February 2019, the total population in Crisis and Emergency (IPC Phases 3 and 4) is expected to increase to about 10.6 million (approximately 47 percent of the rural population), in the absence of humanitarian assistance. Households dependent on rain-fed wheat production, particularly in northern, western and southern areas, are expected to experience difficulty meeting consumption requirements until 2019 spring harvest.
- While El Niño conditions will bring desperately needed precipitation, they also present a threat. Heavy snowfall is commonly coupled with flooding in Afghanistan, as the snow melts in spring and flows into catchment areas. An estimated 80 percent of soil is in poor condition and subject to erosion due to the ongoing drought. If the El Niño brings excessive snowfall, this could threaten the success of the ongoing planting (winter/spring wheat cultivation) and/or harvesting seasons (winter/spring wheat) from May to August.
- During the winter period, access to markets will likely be restricted due to snowfall increasing food and fuel prices, which will further limit households' purchasing power. Increased



The impact of the ongoing drought, coupled with potential negative effects of forecasted above average precipitation and flooding during winter and spring, require the implementation of targeted and integrated early actions in Afghanistan.

moisture and higher temperatures forecasted for the springtime will increase the possibility of plant pest outbreaks during spring/summer 2018.

Recommended early actions

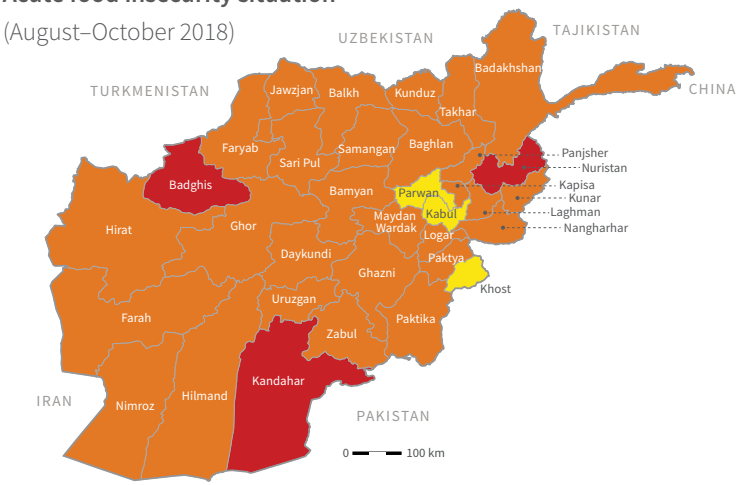
Crops

- Distribute certified wheat seeds and quality fertilizers for winter/spring cultivation in the north (by mid-February 2019 for lower altitude and end of March 2019 for higher), south and west of Afghanistan.
- Enhance and construct irrigation structures and protection walls resistant to flash floods before snow-caps melt in April 2019 through cash-for-work in the west, east, north and northeast.

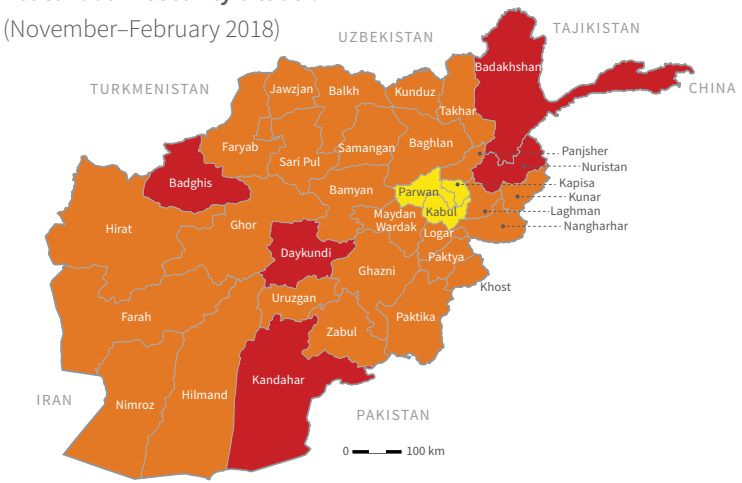
Livestock

- Construct and rehabilitate water points for livestock through cash-for-work to maximize above-average rainfall.
- Distribute concentrated animal feed to smallholder pastoralists to protect livestock during harsh winter months in the north, northeast, west, centre and south.
- Distribute fast-growing fodder crop seeds (e.g. clover) to restore pasture during the winter into spring.
- Conduct vaccination campaigns of small ruminants against *peste des petits ruminants* and large ruminants against foot-and-mouth disease, and deworming campaigns before the peak of the winter period.
- Provide trainings on integrated pest management (locust, sunn pest and cutworm) in the north, northeast, west, south and east to protect the upcoming winter cereal season.
- Provide agricultural and livestock assistance at areas of origin of drought-induced IDPs to prevent further migration and promote returns.

Acute food insecurity situation
(August–October 2018)



Acute food insecurity situation
(November–February 2018)



IPC phase classification

Famine	Crisis	Minimal	Insufficient data
Emergency	Stressed	Not analysed	

Source: IPC, November 2018

high risk

2018/19 El Niño

High-risk countries and potential impacts on food security and agriculture

90 percent
chance of El Niño prevailing at the beginning of 2019

Risk overview

- El Niño is a recurrent global atmospheric-oceanic phenomenon associated with an increase in sea surface temperatures in the central tropical Pacific Ocean and a sustained weakening of trade winds.
- In view of the potential impact of the 2018/19 El Niño on food security and agriculture, high-risk countries in Southern Africa, Asia and the Pacific and Latin America and the Caribbean should be prioritized for continuous monitoring, preparedness and early action.
- The extent of an El Niño impact on agriculture and food security depends on a complex interplay of meteorological, seasonal and vulnerability factors. As a result, impact patterns of global El Niño events are variable and do not necessarily materialize during every occurrence. While there is a correlation between the intensity of El Niño events and their global impact, there is always potential for even a weak or moderate event to generate significant effects in some regions. To address this uncertainty, it is crucial to consult national and regional early warning systems for a systematic analysis of weather forecasts, vulnerabilities and potential risks.

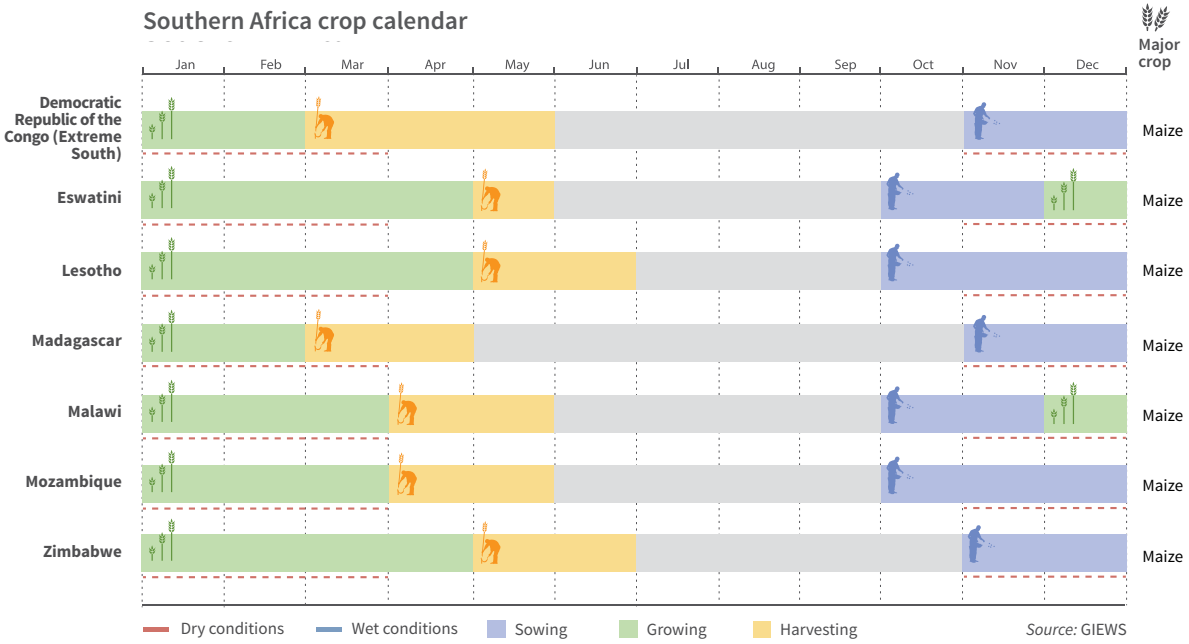
Current outlook

- The official January 2019 El Niño forecast, released by Columbia University's International Research Institute for Climate and Society (IRI), points to a 90 percent chance of El Niño developing during the period between December 2018 and February 2019, with a probability just below 60 percent of it continuing between April and June.
- Although it can affect the climate system worldwide, even in the absence of a declared global El Niño, localized El Niño-like effects in some regions and countries are possible. These effects are likely to impact the agricultural sector, especially if they coincide with critical stages of crop and pasture growth.
- The focus of this section is to indicate which countries are at 'high risk' and which should be prioritized for further monitoring, preparedness and early action during the January–March 2019 period. It also offers specific early action recommendations to promote the understanding that impacts of El Niño can be mitigated before they generate large-scale food security emergencies.

Southern Africa

Risk overview

- El Niño-like conditions are already affecting rainfall in Southern Africa, causing delays to the start of the rains as well as below-average performance in many areas. Even if a global El Niño is not declared in the coming weeks – or is declared but qualified as a weak event – it can still influence regional precipitation patterns significantly. This can have adverse impacts on food security, especially among the most vulnerable populations.
- Across most of Southern Africa, El Niño events typically result in anomalous reduced precipitation between November and March, coinciding with the main crop-growing season. According to the Climate Prediction Centre, the impact is typically felt mainly across Eswatini, Lesotho, Madagascar, Malawi and southern parts of Mozambique, northeast Namibia, southern Zambia and in Zimbabwe.
- During the previous 2015/16 El Niño event an estimated 32 million people were reported as food insecure, prompting the Southern Africa Development Community Council of Ministers to declare a regional drought disaster. During the 2017/18 cropping season, most countries in Southern Africa registered reduced



and/or below-average cereal harvests due to a mid-season dry period, which acutely aggravated food-insecurity conditions. However, the number of people in need of assistance was still well below that of 2015/16.

- Overall, national seasonal climate forecasts point to normal to below-normal rainfall for the January–March 2019 period, which is when maize (the main crop in the region) is most sensitive to water deficits.
- According to GIEWS, cereal production in 2018 is estimated at 33.2 million tonnes, 6.4 million tonnes lower than the 2017 record high but still 1.2 million tonnes above the previous five-year average. The year-on-year production decrease is predominantly on account of a reduced maize output, which on average accounts for about 76 percent of the total cereal production.

Potential impact

- Demand for agricultural labour – a key source of income for rural households during the November–March lean season – could decline due to reduced planted areas.
- If dry conditions persist throughout the 2018/19 cropping season there is a high risk of a second consecutive annual decrease in the cereal harvest, which is likely to worsen the food security situation. The situation will be particularly precarious for vulnerable farming households, who are the most susceptible to the negative impacts of dry conditions.
- Within the region, fall armyworm presents an additional risk. The pest could contribute to lowering crop production, particularly of maize, the impact of which would be exacerbated in the case of drought. According to FAO's fall armyworm food insecurity risk map, the highest-risk areas in Southern Africa include central and southern Angola, the Democratic Republic of the Congo, Madagascar and parts of Mozambique. Other areas at considerable risk include southern Malawi and central Zambia.
- El Niño-induced dry conditions could decrease water levels in dams and water tables, raising concerns over water availability for communities. Livestock production would also be impacted by limited water points and pasture, degradation of existing pasture, and a potential increase in outbreaks of transboundary animal diseases.
- The number of people facing severe food insecurity is currently high in several countries, such as Madagascar, Malawi and Zimbabwe, and any additional adverse impacts on agricultural production in 2018 could lead to further significant deterioration.

high risk

Recommended early actions

The following is an indicative list of early actions that could be considered to mitigate the impact of El Niño on agriculture and food production in the region. However, the selection of early action should be specific to each country's context and take into account the likely impact of the event on agricultural livelihoods and food security.

Assessment

- Scope the likely impacts of El Niño along agricultural value chains.
- Assess strategic food reserves.
- Assess livestock value chains for potential intervention options such as support to livestock markets and commercialization.

Crops

- Improve vulnerable farmers' access to quality seeds in areas affected by erratic rains, through cash-based interventions, seed fairs and/or the distribution of drought-tolerant seeds. Seed interventions should focus on off-season crops (e.g. vegetables).
- Improve access to water and water management for vulnerable farmers by distributing rainwater harvesting equipment, water pumps, and micro-irrigation equipment for off-season crop production (e.g. vegetables).
- Conduct trainings on good practices in agricultural water management, targeting vulnerable farmer households in areas affected by erratic rains.

Livestock

- Reinforce animal health surveillance awareness campaigns and collaborate with the human health sector regarding zoonotic diseases.
- Conduct deworming and vaccination campaigns to prevent the spread of livestock diseases in areas affected by erratic rains.
- Support livelihood diversification activities among vulnerable households in potentially affected areas, including by establishing backyard poultry production.
- Improve access of vulnerable livestock keepers to animal feed in areas where fodder/pasture is scarce, through cash-based interventions or by direct distribution.
- Consider promoting commercial destocking among vulnerable livestock keepers in areas affected by erratic rains.

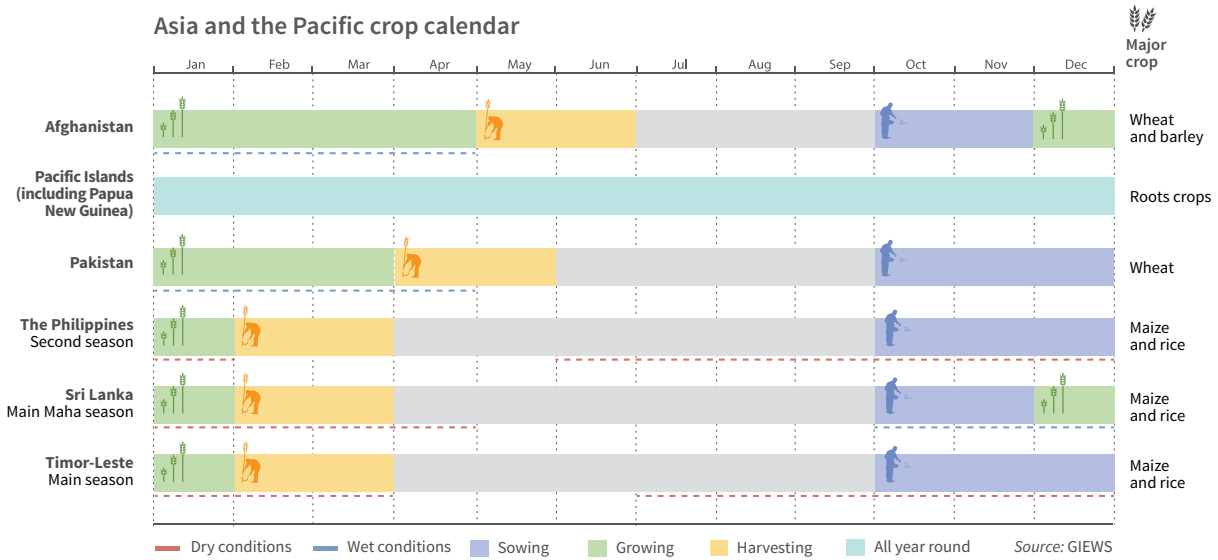
Asia and the Pacific

Risk overview

- In Asia and the Pacific, El Niño events historically result in both wet and dry extremes. Dry conditions are commonly experienced across the Pacific Islands, Papua New Guinea, the Philippines and Timor-Leste. Meanwhile in Afghanistan and the northern Pacific, El Niño events are usually associated with above-average precipitation and in Pakistan and Sri Lanka with abnormal weather patterns, including both drier and wet periods.
- IRI forecasts for January–March 2019 are as follows: below-average precipitation is projected for Indonesia, Micronesia, northeast and southern Papua New Guinea, the Philippines, the south of the Solomon Islands, Timor-Leste, and Vanuatu; above-average precipitation is expected over northeast and central Afghanistan, northern Pakistan and the north of the Solomon Islands.

Potential impact

- In Afghanistan and Pakistan, El Niño is associated with above-average precipitation between January and April. As both



countries have recently experienced drought – with Afghanistan on the more severe end of the scale – above-average rainfall is a welcome respite for crops and pasture. However, heavy precipitation could also provoke flooding.

- The impact of El Niño varies across the Pacific Islands, where both dry and wet conditions can manifest. The Melanesian region, particularly the Solomon Islands and Vanuatu, are the most vulnerable alongside Micronesia, where Kiribati has historically been affected. In the Pacific, the sowing/growing/harvesting of key crops occurs on a rotational basis throughout the year. In dry conditions, water can become scarce and compromise household fruit and vegetable production. With wet conditions, heavy rainfall could damage infrastructure and pollute water sources. Salinization of fresh drinking water is an issue during both dry and wet periods.
- In Papua New Guinea, key crops are produced on a rotational basis. During El Niño periods the area usually experiences both drought and frosts, events that especially affect subsistence farming, which 80 percent of the country rely on as their main form of livelihood.
- In the Philippines, dry conditions are currently forecast to persist into 2019. This is likely to impact the planting/early development of secondary rice and maize crops and water availability/pasture for livestock.
- In Sri Lanka, there is an increased probability of below-average precipitation across the country. This could negatively affect the 2019 main *Maha* season and the early stages of the secondary *Yala* season.
- In the central highlands, eastern and southwest Timor-Leste, El Niño will coincide with planting and early development of the 2019 main rice and maize crops. Dry conditions could compromise both crop growth and yield output, while reduced water availability may negatively impact the livestock sector by limiting pasture and compromising water points.

Recommended early actions

The following is an indicative list of early actions that could be considered to prevent and mitigate the impact of El Niño on agriculture and food security in high-risk countries in Asia and the Pacific. However, the selection of early actions should be specific to each country context and consider the likely impact of the event on agricultural livelihoods and food security.

Early actions for above-average rainfall

Assessment

- Scope the likely impacts of El Niño along agricultural value chains.

Crops

- Promote pre-harvesting of staple crops.
- Preserve and safely store seeds and seedlings.

- Transport agricultural equipment to safe havens or crop silos upon early warning.

Livestock

- Support community sensitization on good livestock practices during floods.
- Evacuate livestock and poultry to pre-identified evacuation sites upon early warning.

Fisheries and aquaculture

- Store fishing gear in safe havens upon early warning.

Cash and vouchers

- Implement cash transfer programmes (via social protection systems) alongside a messaging system of good practices on how to protect livelihoods in case of floods.

Early actions for below-average rainfall

Assessment

- Scope the likely impacts of El Niño along agricultural value chains.

Crops

- Encourage the use of water-saving irrigation materials. Where possible, repair existing water management systems.
- Strengthen community-based water management techniques.
- Encourage the planting of drought-tolerant crops such as taro, kumara and cassava.
- Provide drought-tolerant, early-maturing crop varieties (depending on location and farming systems).

Livestock

- Improve access of vulnerable livestock keepers to animal feed in areas where fodder is scarce, through cash-based interventions or direct distribution.
- Consider promoting commercial destocking among vulnerable livestock keepers in areas affected by erratic rains.

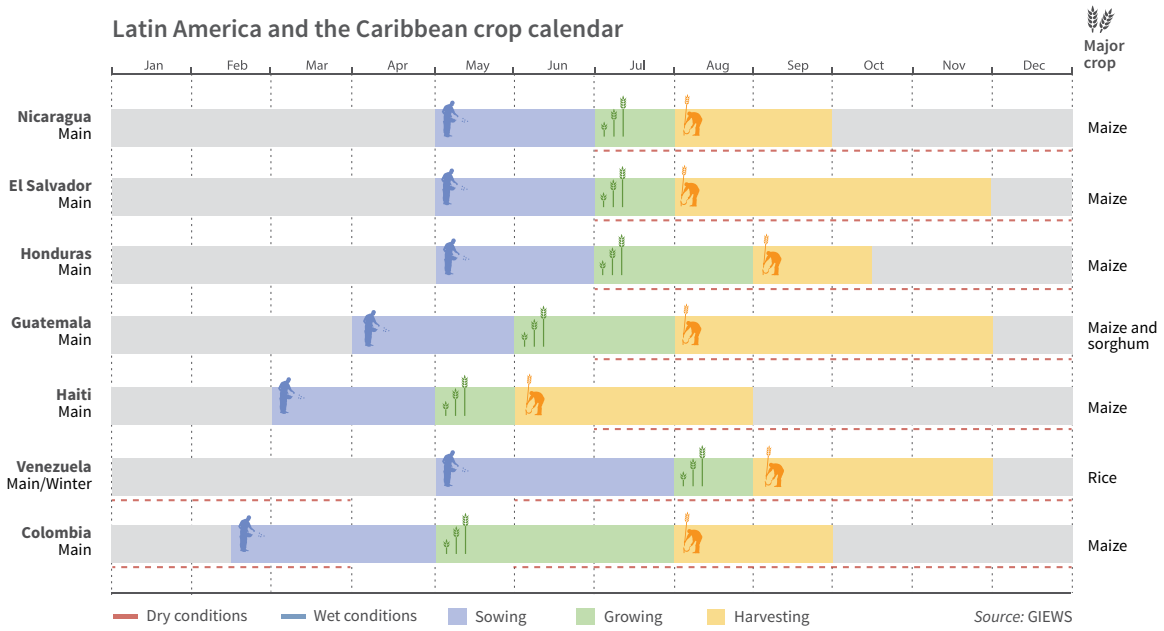
Fisheries and aquaculture

- Enhance preparedness and risk management/prevention, including by stocking excess harvest produce.

Latin America and the Caribbean

Risk overview

- According to the Climate Prediction Centre, El Niño is typically associated with below-average rainfall in Central America and dry conditions over the northern part of the South American continent, including Colombia and Venezuela.
- Both IRI and the National Oceanic and Atmospheric Administration have forecast below-average rainfall for January–March 2019 throughout the Dry Corridor of Central America. This will also be the case for the coastal areas of Western Colombia and Eastern Venezuela, although conditions are likely to improve during April and May.
- Between June and mid-August 2018, Central America (in particular El Salvador, Guatemala, Honduras and Nicaragua) experienced longer and more pronounced than average dry conditions – the so-called *Canícula*. This affected the *Primera* season, with planting starting in the middle of April and the harvest ending in July/early August. The *Canícula* is estimated to have affected 2.1 million people, with a production decrease ranging from 20 percent to a total loss of crops, depending on the area. Dry spells in the summer also affected areas in eastern El Salvador, eastern and coastal



regions of Guatemala, the Gulf of Fonseca region of Honduras and, to a lesser extent, the north of Nicaragua.

Potential impact

- A potential El Niño in Central America could affect production in some, mainly secondary, crops planted during the 2018 winter. This would exacerbate existing vulnerabilities resulting from previous dry conditions. If dry conditions persist through the beginning of 2019, next year's lean season – which typically peaks in March and April – could be more pronounced and begin earlier than usual.
- If dry conditions continue further into 2019, they have the potential to negatively affect the 2019 primera season as well, which usually starts in mid-April. The primera – the main season for maize – is the most important season in the majority of countries in the region. Producers in the Dry Corridor are largely subsistence farmers and are therefore the most vulnerable in terms of food security.
- Dry conditions had a limited impact on crop production in Nicaragua, although some losses were reported in the departments of Madriz and Chinandega. The country has also been experiencing widespread political unrest since April 2018, leading to low exports, limited tourism and a lack of employment and foreign investment, all of which have significantly decreased average household incomes. The impact of continuing dry conditions on agriculture could contribute to a spiralling food security crisis over the coming months.
- The main rice-sowing season in Venezuela started in October 2018 and could potentially be affected by El Niño conditions. A prolonged El Niño event could also affect the 2019 main sowing season for maize and the secondary sowing season for rice, which begin in May and April respectively. Dry conditions could compound the already severe economic crisis in the country, where financial collapse, hyperinflation and increasing deterioration in the provision of public goods have resulted in a dramatic increase in food insecurity. Further damage to agriculture could contribute to the ongoing outflow of Venezuelan migrants in the region.
- Severe dry conditions over the major producing areas in Colombia could result in agricultural losses in the 2019 season, with the sowing of maize and rice crops typically beginning in February.
- In Haiti, an unfavourable cropping season driven by low rainfall and compounded by increased inflationary pressure has led to elevated levels of food insecurity. From October 2018 to February 2019, IPC estimates that more than 386 000 people (or 6 percent of the population) will be facing Emergency (IPC Phase 4) conditions and over 1.8 million people (or 27 percent of the population) are projected to be in Crisis (IPC Phase 3). Dry conditions and elevated inflation are likely to prevail from March

to May 2019, with IPC projecting over 2.6 million people will face Crisis (IPC Phase 3)levels of food insecurity during this period.

Recommended early actions

The following is an indicative list of early actions that could be considered to prevent and mitigate the impact of El Niño and dry conditions in general on agriculture and food security in high-risk countries in Latin America and the Caribbean. The selection of early actions should be specific to each country context and consider the likely impact of the event on agricultural livelihoods and food security.

Assessment

- Scope the likely impacts of El Niño along agricultural value chains.

Crops

- Promote crop diversification and good agro-ecological practices to improve resilience.
- Plant short-cycle early varieties with the first rains in the drier areas of the Dry Corridor.
- Replace crops with drought-tolerant varieties such as sorghum and tubers.
- Increase the use of minimum tillage and lower plant density and implement adequate pest management.
- Condition wells, build small reservoirs for water harvesting, provide water to animals, plant pasture and fodder.
- Provide technical assistance for managing and maintaining water reservoirs and for rainwater harvesting.
- Build capacity on good practices for seed storage.
- Establish community seed banks of adapted and drought-resistant varieties.
- Support the establishment of vegetable gardens for household consumption.
- Establish irrigation systems for the production of grains and vegetables.
- Distribute rainwater harvesting equipment for backyard gardening.
- Strengthen strategic food reserves at national and local levels.

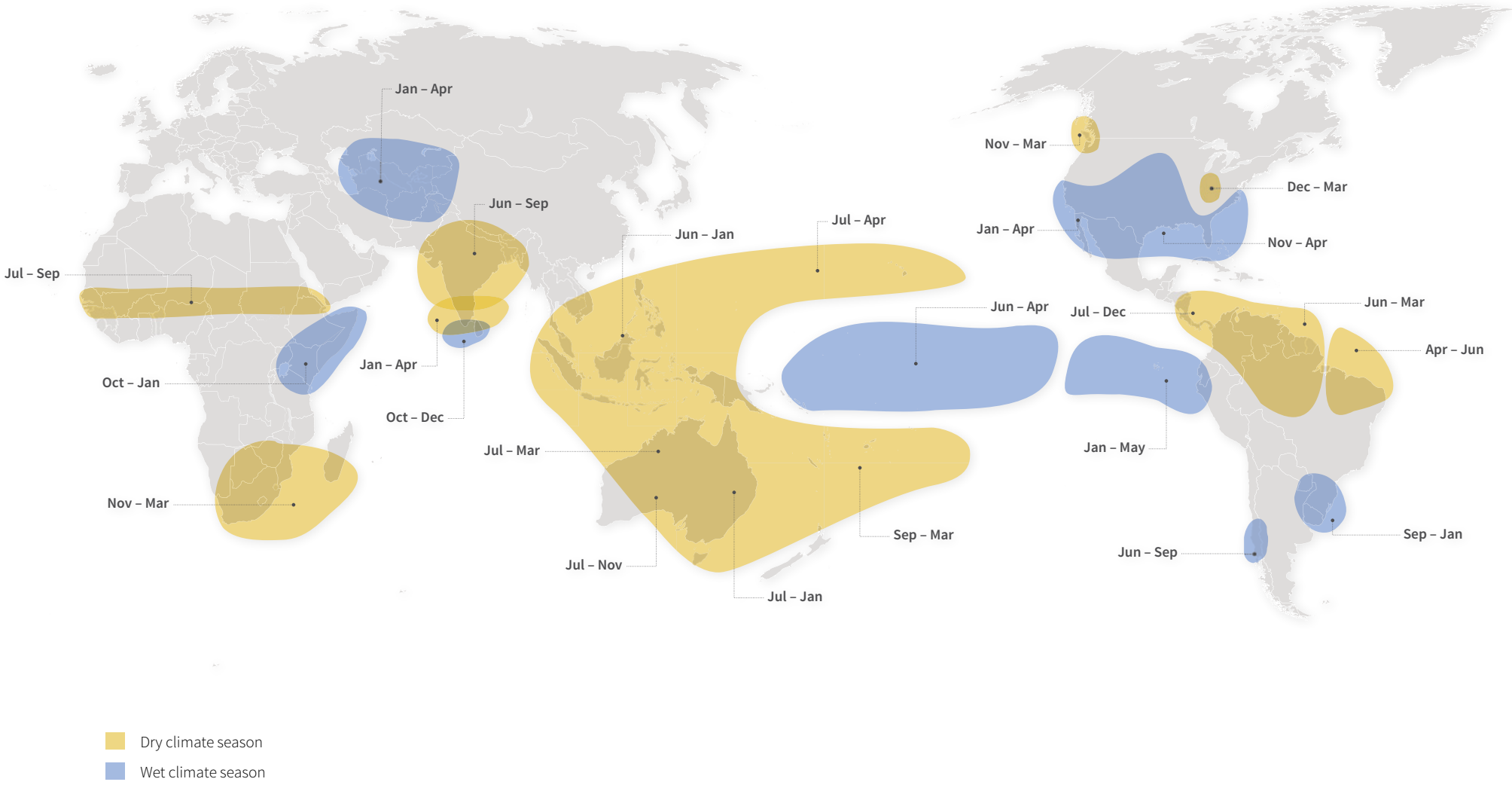
Livestock

- Strengthen capacities in the prevention of livestock diseases.
- Build capacity on good practices for fodder storage.
- Promote the breeding and raising of small stock for livelihood diversification.
- Carry out animal prophylaxis and veterinary campaigns targeting vulnerable livestock raisers.
- Support the establishment of fodder banks to ensure fodder availability in case of drought.

Fisheries and aquaculture

- Support the breeding of fish in community and family reservoirs.

Historical El Niño trends



Source: NWS/NCEP Climate Prediction Center

high risk

An estimated 32.7 percent of Palestinian households in the West Bank and Gaza Strip are food insecure. Decreasing humanitarian funding undermines the potential for sustaining service provision for increasing needs throughout 2019, exacerbating food insecurity amid an unstable political situation.

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 January–March 2019, the **on watch** section includes:

- Venezuela (Bolivarian Republic of)
- Sudan
- Nigeria
- Palestine
- Horn of Africa
- African swine fever outbreak in Asia
- Highly pathogenic avian influenza

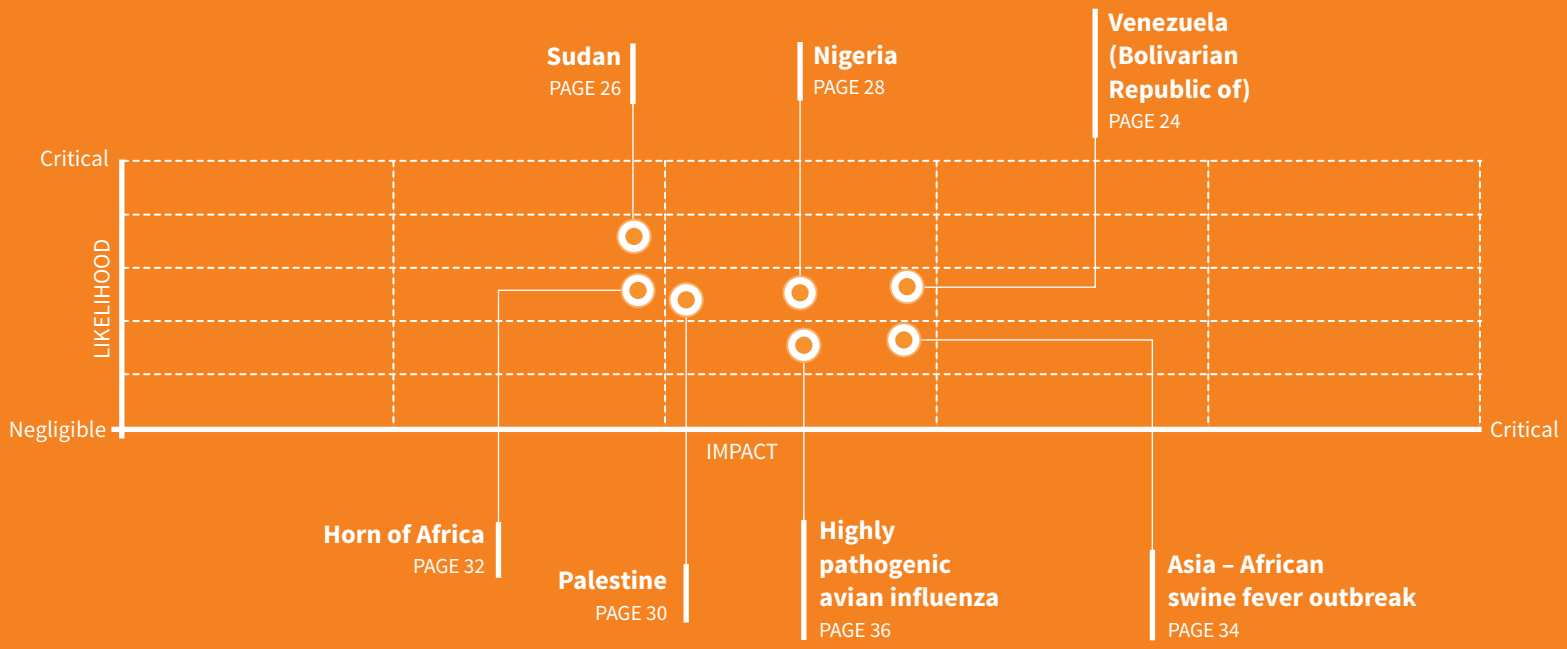


Photo: ©FAO/Marco Longari

Venezuela (Bolivarian Republic of)

Food security to deteriorate further, exacerbating the migration crisis

2.3 million people emigrated from Venezuela as of June 2018

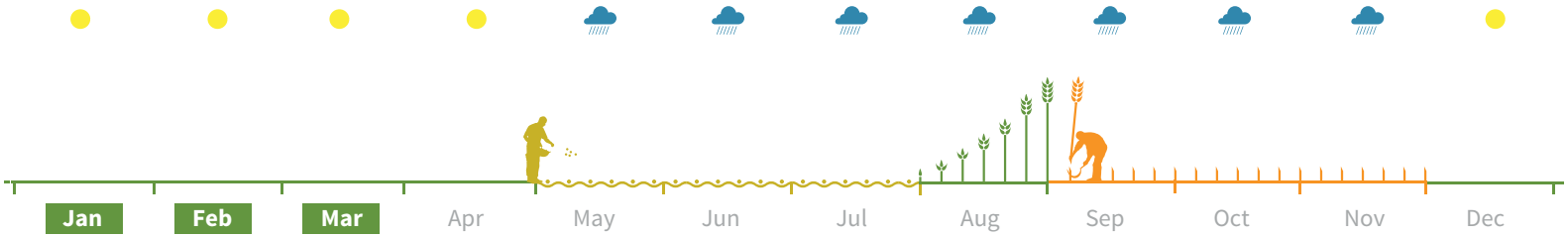
18 percent fall in GDP estimated in 2018

Risk overview

- According to the International Monetary Fund, Venezuela remains stuck in a deep economic and social crisis. The fall of GDP is estimated at about 18 percent in 2018, mainly due to a significant decrease in oil production and international prices since 2016. The projected inflation was expected to rise to 1 million percent by end of 2018. The collapse in economic activity, hyperinflation, and increasing deterioration in the provision of public goods (healthcare, electricity, water, transportation and security) as well as shortages of food at subsidized prices have resulted in large migration flows, which will lead to intensifying spillover effects on neighbouring countries.
- The Government implemented an Economic Recovery Programme, starting on 20 August 2018, however it is too early to show results and improvements on the macro-economic policy. Moreover, the Government has included some additional measures recently, increasing wages and revaluing the monetary system based on the *"Petro"*. The situation remains uncertain, due to the lack of evidence to measure the impact.
- The influx of Venezuelan migrants in the region continues. An estimated 2.3 million Venezuelans had fled the crisis-affected country as of June 2018, as stated by the United Nations Secretary-General Spokesperson. The Government has launched a programme called *"Vuelta a la Patria"* for returnees, mainly from Latin American and Caribbean countries, such as Chile, Colombia, Ecuador and Peru. The programme aims at offering opportunities for returnees in the country.
- According to a recent report by the International Organization for Migration, population outflows from Venezuela have considerably increased over the last two years, with an estimated 1.6 million Venezuelans abroad in 2017, as compared with 700 000 in 2015. Of these, approximately 885 000 Venezuelans are in South America, 308 000 in North America, 78 000 in Central America and 21 000 in the Caribbean. Based on this, international organizations have prepared an Action Plan to meet the main priorities of governments in assisting Venezuelan nationals.

Potential impact

- It is too soon to measure the impact of the Economic Recovery Programme. Affording the increasing social expenditure in a context of economic crisis could be a challenge for the Government of Venezuela, taking into account low oil prices and international pressure.
- The prevalence of undernourishment is increasing. According to FAO, the percentage of undernourished people in the country has triplicated, from 3.6 percent in 2013 to 11.7 percent in 2017, representing nearly 3.7 million people.



Targeted actions aimed at boosting local food production and supporting the reinforcement and resilience of local food systems could mitigate the increasing food insecurity in Venezuela (Bolivarian Republic of).

Recommended early actions

Assessment

- Strengthen information systems on food security and disaster risk management, with an emphasis on family farming.

Food production

- Improve technical and institutional capacities for the development of family/community-based agricultural production systems with an agro-climatic 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 (in partnership with the UNICEF).

Crops

- Provide support for the production of agro-ecological bio-inputs (organic fertilizers, bio-controllers).
- Support local production and storage of good quality seeds.
- Support the establishment of vegetable gardens for household consumption.
- Promote livelihood diversification and good agro-ecological practices to improve resilience against agro-climatic and socio-economic risks.

Livestock

- Strengthen small livestock and poultry production for household consumption.

Water and energy

- Promote the rational management and use of irrigation water and energy.

Sudan

Recent cereal harvests bring little respite to an ongoing economic crisis set to worsen in 2019

5.76 million people are expected to be food insecure by the end of March 2019

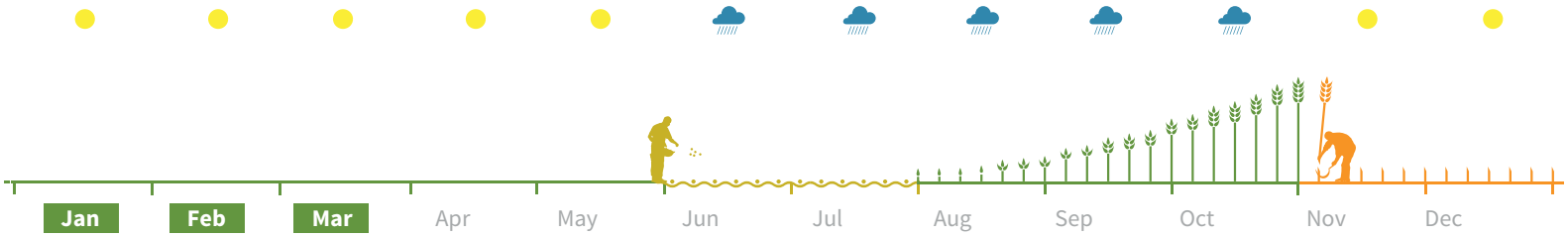
Sorghum prices are **203 percent** higher than the five-year average

Risk overview

- The ongoing economic crisis continues to drive high food, fuel and transport prices across Sudan. Despite the good performance of the ongoing agriculture summer season (July to December), the economic crisis has created many challenges for the main cereal harvest, including labour shortages, delayed payments for wages, and fuel shortages for the ongoing harvest and preparations for upcoming winter season (November to March). From October to December 2018, an estimated 5.67 million people are food insecure. This includes about 4.6 million people in Crisis (IPC Phase 3) and over 980 000 in Emergency (IPC Phase 4).
- Persistent long-term difficulties accessing foreign exchange and the removal of wheat subsidies in Sudan have contributed to the price spikes, which began in late 2017. According to FEWS NET, despite austerity measures set by the Government to curb the ongoing macro-economic crises, the Sudanese Pound (SDG) has further depreciated to 53.5 SDG/USD on the parallel market, though the official exchange rate stands at 47.5 SDG/USD. These macro-economic changes have negatively impacted the 2018 agricultural season and resulted in high costs for both planting and harvesting activities, particularly in the semi-mechanized sector.
- As of October 2018, the national retail sorghum price rose by 138 percent compared with the same month last year and was 203 percent higher than the five-year average. Prices are expected to decline slightly during the November 2018 to January 2019 peak of the harvest. After January, staple food prices are then expected to increase again. According to FEWS NET, after January 2019, millet and sorghum prices are projected to be around 40 percent above last year and 90-150 percent above the five-year average. As a result of food and fuel shortages, in late December 2018 protests erupted in Sudan.
- While rainfall was evenly distributed throughout Sudan and contributed to positive cereal and cash crop harvests, access to food is the main food security issue – in particular households with low-levels of income dependent on markets for their immediate food needs. As a result of the economic crisis and limited cash availability, an increased number of vulnerable households have resorted to negative coping strategies, with some adopting irreversible coping strategies such as selling productive assets.

Potential impact

- By the end of March 2019, it is projected that an estimated 5.76 million people – or 13 percent of the population – will be food insecure. This includes an estimated 4.67 million people in Crisis (IPC Phase 3) and over 1 million people in Emergency (IPC Phases 4).



Empirical evidence suggests that livelihood interventions in Sudan, particularly livestock early actions, have a return of USD 6.7 for every USD 1 invested.

- Staple food prices are expected to remain very high throughout January 2019, even though harvests from October to December 2018 could lead to small declines.
- Should the economic crisis persist, it may reduce farmers' ability to repay their credits. The high cost of production is expected to keep food prices at their current high levels, which will continue to create food access issues for vulnerable groups. Areas of greatest concern include conflict-affected areas of Blue Nile, Darfur and South Kordofan states, and areas of marginal agricultural production in Kassala, North Darfur, North Kordofan and Red Sea states.

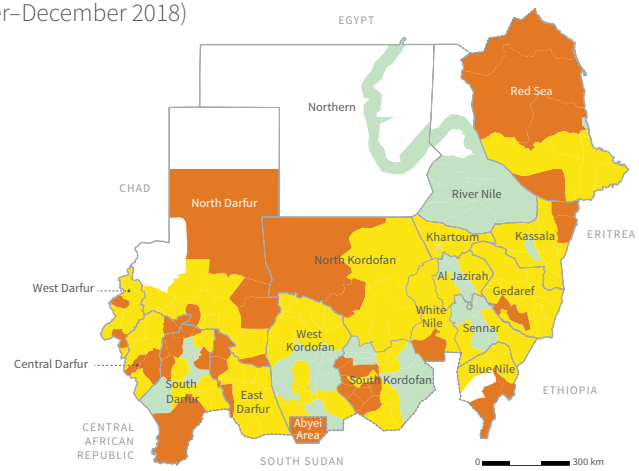
Recommended early actions

Early actions are required to protect livelihoods and support vulnerable communities facing Crisis (IPC Phase 3) and Emergency (IPC Phase 4) conditions.

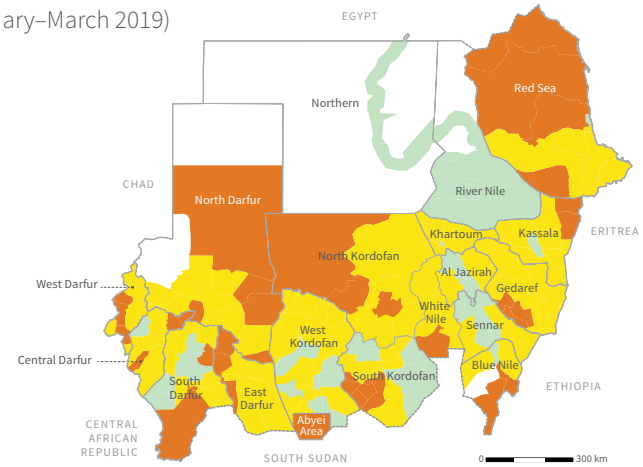
Livestock

- Strengthen the surveillance of animal diseases, particularly Rift Valley fever, in southern Sudan to ensure transboundary movements are monitored and evaluated for local veterinary authorities to make informed decisions.

Acute food insecurity situation
(October–December 2018)



Acute food insecurity situation
(January–March 2019)



IPC phase classification

Famine	Crisis	Minimal	Insufficient data
Emergency	Stressed	Not analysed	

Source: IPC, November 2018

Nigeria

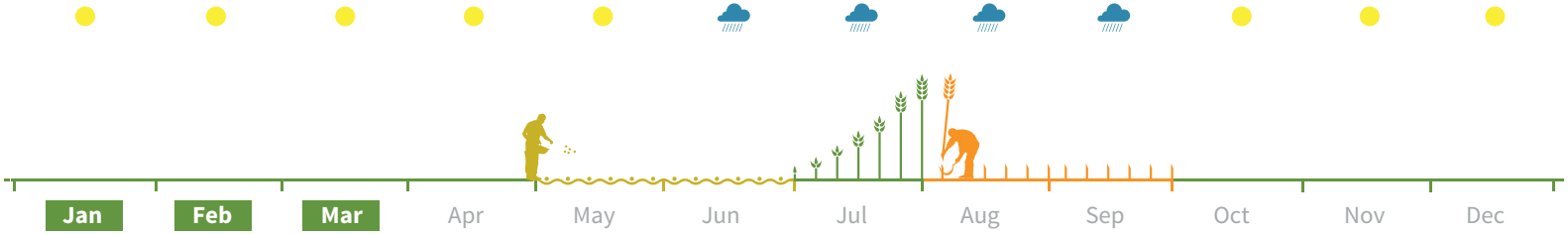
Insecurity in the northeast, flooding and pastoral-farmer conflict affecting food security

1.7 million people severely food insecure in the northeast

Almost **2 million** people affected by floods, with over 350 000 in need of emergency assistance

Risk overview

- Food insecurity in Adamawa, Borno and Yobe states in northeastern Nigeria is likely to remain severe as the ongoing conflict perpetuated by the non-state armed groups insurgency and response by the military spurs further displacements. The number of people facing acute food insecurity in Adamawa, Borno and Yobe has significantly reduced over the past year, from 2.6 million (October–December 2017) to 1.7 million (October–December 2018) thanks to large-scale humanitarian assistance and a slight improvement of market functioning. However, according to the latest *Cadre Harmonisé* analysis (November 2018), an additional 1 million people are expected to be severely food insecure during the lean period (June–August 2019), for a total of 2.7 million.
- Population displacements continue to occur. Serious protection threats persist both during displacement and in many areas of return. Female- and child-headed households, unaccompanied and separated children, and adolescent boys and girls are particularly at risk of sexual and gender-based violence (SGBV) and child recruitment. Inadequate access to food, basic services and livelihood opportunities have a direct link with the increasing number of reported cases of sexual exploitation and abuse (SEA), particularly within female-headed households.
- The main harvest season for cereals, tubers and legumes has nearly ended across the country. According to (FEWS NET, preliminary reports of the recent Agricultural Performance Survey by the National Agricultural Extension and Research Liaison Services for the 2018 rainy season indicates favorable harvests for most crops. Good 2018 rainfall has also led to increased levels of water and pasture availability across the country leading to improved livestock body conditions.
- However, pastoralist movements are partly restricted by communal conflict in the middle belt states, cattle rustling activities in the northwest and insurgency in the northeast, limiting herd movements and access to important rangelands in the affected areas. The farmer-herder conflict is reported across 25 states including Adamawa, Benue, Kaduna, Nasarawa, Plateau and Taraba, and led to massive population displacements, with estimates ranging from 60 000 to 300 000 just in the past three years, affecting crop production and pastoral livelihoods.
- A regional cholera outbreak is currently impacting the Lake Chad Basin, affecting 10 000 people, and 175 people have died in the northeastern states of Adamawa, Borno and Yobe as of early November 2018.
- Widespread flooding occurred across the country during the rainy season (June–October 2018), and the Government declared national disasters in 12 states. Almost 2 million people were affected and over 350 000 are estimated to be in need of emergency assistance. Some of the worst affected areas are located along the Benue and Niger floodplains.
- General elections are scheduled to be held on 16 February 2019, to appoint the President and the National Assembly.



Continued efforts are necessary to ensure access to farmlands within a larger radius around main rural communities in Adamawa, Borno and Yobe states in northeastern Nigeria. This will allow farmers to engage in or complete their dry season farming activities.

Potential impact

- In late November 2018, FEWS NET reported that an intensification of the insurgency led to increased deaths and displacement in the northeast. The agriculture sector remains disrupted and dry season activities are likely to be substantially below average.
- The number of people displaced is expected to remain high in northeastern Nigeria as the conflict continues, and Adamawa state will continue to experience conflict related to both non-state armed groups and to farmer-herders. Coupled with the cholera outbreak, this is likely to contribute to the severity of the humanitarian emergency in the area.
- The ongoing farmer-herder conflict, together with cattle rustling activities, continue to lead to increased population displacement. In addition, cattle is the main source of animal protein for most Nigerians, however the insecurity related to the farmer-herder conflict threatens the ability to reach markets in the south.
- Restricted livestock mobility is likely to precipitate livestock disease outbreaks as nomadic and transhumant herds congregate around few accessible water and grazing points. As the cold windy harmattan season approaches, spread of airborne pathogens of livestock such as foot-and-mouth disease, *peste des petits ruminants*, contagious bovine pleuropneumonia and Newcastle disease viruses will likely increase significantly in the coming weeks. Furthermore, the beginning of livestock lean season (around February) is foreseen to exacerbate animal health. Body wasting, malnutrition and dehydration could worsen livestock morbidity and mortality rates. Government veterinary services in affected states have limited capacities to establish effective response against these threats.

Recommended early actions

Livestock

- Conduct community sensitization on peaceful coexistence between farmers and herders, and delimitation of grazing areas and animal routes/corridor in agropastoralist communities in the seven states of Adamawa, Benue, Kaduna, Nasarawa, Plateau, Taraba and Zamfara.
- Build herders' capacities on the production of feedstock, and promote ranching in the seven states of Adamawa, Benue, Kaduna, Nasarawa, Plateau, Taraba and Zamfara.
- 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 could mitigate the impact of these crises.

Cross-sectoral

- Provide agricultural and livelihood assistance (improved seeds, day-old chicks, small ruminants, fishing and food processing equipment, etc.) along with conditional cash transfers to: newly arrived IDPs in Adamawa (Michika, Mubi and Numan) and Borno (Bama, Gwoza, Kukawa, Ngala, Mobbar and Monguno); displaced people in the seven states affected by the farmer-herder conflict and the banditry crisis (Adamawa, Benue, Kaduna, Nasarawa, Plateau, Taraba and Zamfara); and people affected by the recent floods across the Niger and Benue River plain.
- Enhance resilience through sustainable livelihood activities (crops, livestock, fisheries, processing and natural resources management including Safe Access to Fuel and Energy [SAFE]) among returnees, IDPs and host communities in the hardest hit, newly accessible communities in Adamawa, Borno and Yobe.
- Mainstream protection in livelihoods support interventions through home-based livelihoods activities (micro-/backyard gardening, small ruminant restocking and feeding, and poultry production) and improve SAFE to mitigate women's exposure to SGBV and SEA.

Palestine

Decreasing humanitarian funding to exacerbate food insecurity amid an unstable political situation

More than **1.6 million** people or **32.7 percent** of the population estimated to be food insecure in the West Bank and Gaza Strip

Unemployment rate reached almost **55 percent** in the Gaza Strip

1.5 million people receiving humanitarian assistance

Risk overview

- An estimated 32.7 percent of Palestinian households (or 1.65 million people) in the West Bank and Gaza Strip are food insecure amid a worsening economic situation. The Household Expenditure and Consumption Survey findings released by the Palestinian Central Bureau of Statistics in May 2018 show a significant increase in poverty rates in the Gaza Strip, from 38.8 percent in 2011 (the previous time poverty was measured) to 53 percent by the end of 2017 – equivalent to more than 1 million people. This situation compounds the widespread prevalence of poverty, further reducing purchasing power and increasing people's reliance on humanitarian aid with more than 80 percent of the population dependent on some form of assistance.
- In the Gaza Strip, 68.5 percent of households are considered food insecure – with 46.8 percent considered severely insecure. During the third quarter of 2018, unemployment rates reached an unprecedented high of 54.9 percent, with only 243 000 people recorded as employed. The majority of the employed are public employees on the Palestinian Authority's payroll whose salaries have been cut since May 2017. Unemployment among youth exceeded 71 percent, and was even higher for female youth, amounting to 90.6 percent in the third quarter of 2018. Renewed protests and increased trade and access restrictions threaten to worsen the humanitarian situation.
- For more than a decade, the Gaza Strip has suffered chronic electricity shortages, leading to severe impacts on agriculture-based livelihoods and food production, and reducing electricity supply to a mere four hours per day during most of 2017 and 2018. Emergency fuel supply to the Gaza Power Plant has provided some respite since November 2018, with electricity supply increasing to up to 18 hours a day in some areas. However, no long-term solution has been reached to ensure sustainable, stable electricity supply.
- In the West Bank, 11.6 percent of the population is currently food insecure. Food insecurity prevalence reaches up to 18 percent for rural households in agriculture-dependent communities – particularly Bedouin communities who continue to face challenges in accessing essential natural resources, such as water and grazing land. Water continues to be a challenge for farmers, particularly in remote areas, with lack of proper infrastructure, restrictions on essential maintenance of irrigation systems and lack of licenses issued for new well drillings.
- In August 2018, the United States of America cut its contribution to the United Nations Relief and Works Agency for Palestine Refugees in the Near East's budget and other forms of assistance to Palestinians. The United States also ended bilateral humanitarian and development assistance for Palestinians in the West Bank and Gaza Strip.

Potential impact

- Given the humanitarian impact of the protracted crisis, urgent assistance is required to strengthen livelihood resilience and improve the food security of vulnerable populations in the West Bank and Gaza Strip.
- The United States of America's decision to cut funding undermines potential for sustaining service provision for increasing needs throughout 2019, despite the support from other resource partners in 2018. Moreover, in 2018 the operating space has been shrinking for national and international humanitarian actors, a trend which might continue over the coming months.
- The primary cause of food insecurity in the Gaza Strip is the lack of economic access to food resulting from alarmingly high unemployment and consequently high poverty rates. Cuts in humanitarian assistance could translate in a marked deterioration, increasing the severity of the crisis in the Gaza

The possible exacerbation of ongoing tensions and cuts to funding call for urgent early action to anticipate and prevent a potential deterioration of the food security situation in the West Bank and Gaza Strip.

Strip that will impact the 1.5 million people already receiving humanitarian assistance.

- Any further tightening of the ongoing blockade could cripple remaining services in the Gaza strip. The risk of an increase in hostilities and a tightening of Israel's longstanding blockade on the Gaza Strip would significantly affect the agriculture sector, which is a mainstay in the Palestinian economy.

Recommended early actions

Crops

- Distribute seasonal production inputs and assets (i.e. irrigation kits, fertilizer, propagation materials, plant protection measures) to vulnerable farmers in the West Bank and Gaza Strip.
- Provide and install solar energy systems to meet the critical energy needs for irrigation water pumping, targeting vulnerable small-scale farmers in the Gaza Strip.

Livestock

- Distribute time-critical seeds of fodder crops, animal shelter, animal health inputs and water storage facilities to Bedouin communities in the eastern slopes of the West Bank and vulnerable livestock holders in the Gaza Strip.
- Provide and install solar energy systems to meet the critical energy needs of poultry and dairy farms in the Gaza Strip.

Partnership and accessibility

- Intensify resource mobilization and advocacy efforts, as well as coordination with relevant authorities to facilitate access to inputs and services, with priority given to vulnerable farmers and fishers in Gaza Strip and Bedouin communities in the eastern slopes of the West Bank.

Horn of Africa

Poor rainfall reduces prospects of food security improvements in vulnerable areas

1.5 million
conflict affected IDPs in Ethiopia

Risk overview

- Dry conditions prevailed in the Horn of Africa during most of the short rainy season (October to December), with rainfall levels below both the previous year's rainy season and the five-year average. Large deficits were observed in central and southeast Kenya, while in Somalia the first half of November was almost completely dry. In December, rainfall increased across central and southern Kenya, while below-average rainfall was recorded further north.
- January 2019 El Niño forecast released by IRI points to a 90 percent chance of El Niño developing in the period between December 2018 and February 2019, with a probability just below 60 percent of it continuing between April and June. Although El Niño events are historically associated with above-average rains in the Horn of Africa, the abundant rainfall conditions that had been previously forecast failed to materialize this year during the short rainy season. This anomaly is likely due in part to a neutral Indian Ocean Dipole, a climate phenomenon which has an influence on East African rainfall patterns that is generally considered stronger than the El Niño–Southern Oscillation.
- In Somalia, the food security situation has steadily improved since early 2018. The 2018 *Gu* rains – the most abundant in nearly two decades – resulted in a favourable cropping season despite some flood-induced crop losses in riverine areas. In arid and semi-arid lands of Kenya, the food security situation also substantially improved in 2018 as a result of exceptionally high rainfall in March–May 2018. In southeast Ethiopia the March–June 2018 *Gu/Genna* rains triggered flash floods in several areas, which displaced thousands of people but resulted in significant improvements in pasture and water availability for livestock. However, herd sizes are still well below average, limiting improvements in household food availability.
- In Ethiopia and Somalia, conflict and significantly below-average herd sizes are driving reduced access to food and income. In Ethiopia in particular, political and ethnic tensions have escalated in the regions of Amhar, Benishangul-Gumuz, Gambella, Oromoia and Tigray, resulting in flare-ups of violence that are likely to worsen in the coming months, which would lead to an increase in displacement. As of the end of October 2018, there were 1.5 million conflict-affected IDPs in Ethiopia.

Potential impact

- Favourable rains in the previous season helped many households to recover their livelihoods, resulting in much lower vulnerability to shocks compared to the same time last year. Additionally, available food stocks, favourable market prices and residual soil moisture are anticipated to mitigate the effects of this season's below-average rains in much of the region. Consequently, large-scale deteriorations in food security outcomes are unlikely to materialize in the coming months. Nonetheless, the current poor rains could partly weaken the gains from last season.
- Concerns remain that some of the most vulnerable areas in the region could see food security outcomes worsen, particularly in Somalia. Based on the FSNAU quarterly brief issued in December 2018, due to below-average rainfall during the *Deyr* season the cereal harvest in southern Somalia is expected to be 30-40 percent below normal. In low potential agropastoral areas, production will be significantly below average to failed. Food security conditions are expected to deteriorate to Crisis (IPC Phase 3) between January and May 2019 in agropastoral Togdheer, the northeast livelihood zones in northern Somalia, pastoral Addun and coastal Deeh pastoral and fishing livelihood

Targeted early actions could mitigate the potential impact of the poor *Deyr*/*Hageya*/ short rains on agricultural production and food security among the most vulnerable affected households in the Horn of Africa.

zones in central Somalia, and the Bay-Bakool low potential agropastoral livelihood zone in southern Somalia. The proportion of households facing Crisis (IPC Phase 3) outcomes is also likely to increase in other agropastoral livelihood zones where food security outcomes are expected to be Stressed (IPC Phase 2).

- Close monitoring of the 2019 long rains, which typically start in March, is required. Should below-average long rains occur on the back of the current dry conditions, this would raise serious concerns of a deterioration in food security.

Recommended early actions

Assessment

- Closely monitor food security outcomes across the region. Additionally, given that major deteriorations in food security occur after multiple failed seasons, long-term seasonal forecasts for the upcoming 2019 long rains should be monitored.

Livestock

- Strengthen surveillance on animal disease outbreaks.
- Carry out supportive emergency animal treatment.
- Provide fodder/feed and water trucking for livestock to vulnerable pastoral and agropastoral households.
- Undertake livestock cash+ interventions to protect core productivity of the most vulnerable populations.
- Consider destocking where possible.

Crops

- Undertake awareness campaign in riverine and agropastoral areas to mitigate potential negative impacts of dry conditions on crop production.
- Provide agricultural input packages and training to vulnerable farmers to support the next planting season.
- Supplement agricultural input packages with cash to meet immediate food and other crop production needs (i.e. farm labour) at household level.
- Promote nutrition-based interventions (i.e. vegetable production in home gardens with micro irrigation).

Asia – African swine fever outbreak

African swine fever outbreak threatens to spread from China, possibly damaging rural livelihoods in neighbouring countries

Risk overview

- In early August 2018, the Ministry of Agriculture and Rural Affairs in China confirmed the first 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. Ever since the disease was first reported, several outbreaks of ASF have been reported in the country. The virus identified from isolates of the ASF outbreak in China have the same virus genotype currently affecting Eastern Europe and some countries of the European Union.
- Retrospective analysis on the mechanism and origin of this incursion is ongoing, including the links with ASF virus reported in backyard pig farm in Irkutsk Oblast, Russian Federation, in late March 2017.
- The detection in August 2018 was the first time that ASF has ever been reported so far eastward in Asia. As of 11 December 2018, ASF was reported in 21 of China's 34 provinces/administrative divisions, and it was reported for the first time in wild boar in Jilin and Heilongjiang province in December 2018.

Potential impact

- ASF can potentially have devastating consequences on swine health and food security, particularly if it spreads to other countries in the South East Asia region. The risk of spread of ASF is considered high both within China, because of intensification of pig production systems and low biosecurity in pork value chains, and to other eastern and southeastern Asian countries. As the virus is not a zoonosis, it is not transmissible to humans.
- If ASF continues to spread in China, it will likely have an impact on feed ingredients (i.e. soybeans, maize) by influencing the demand.
- Export markets for Chinese pig sector and pork products will remain closed or severely restricted until the disease is contained, and animals and derived products are certified as ASF-free.
- Pork is a very important component to people's diet in China, the Korean Peninsula and in Southeast Asia. Shortage of pork meat, resulting from ASF spread and impact, will potentially affect the national and regional economies as well as food security.
- The swine production sector plays a key role as a source of animal protein. Pigs are a crucial source of food thanks to their rapid growth, efficient feed conversion, quick turnover and high reproduction.

Recommended early actions

There is no vaccine nor effective treatment against ASF. Therefore, animal disease containment should be prioritized.

Planning

- Ensure that sustainable outbreak control strategies are in place. The strategies need to be developed by the government 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.
- Strengthen pig disease surveillance, early warning, detection and notification of suspicions, early detection and coordination.
- Carry out preparedness and response activities (e.g. contingency planning, standard operating procedures and secured financial support).

Pork value chains

- Strengthen surveillance and monitor transport along pork value chains including live pigs as well as pork products.

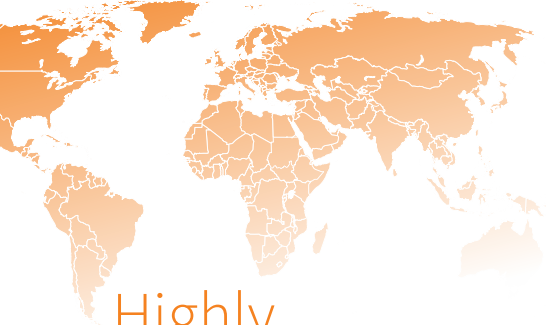
- Increase and apply strict biosecurity measures, frequently clean and disinfect farms and transport vehicles, and improved husbandry practices and production systems.
- Conduct awareness raising and training activities targeting all stakeholders, from veterinarians to farmers, intermediaries and other 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.

Outreach

- Sensitize the public in order to allay food safety concerns and consumption disruption.
- Ensure good communication and coordination with swine producing commercial sector and swine farmers to strengthen cooperation in ASF prevention, detection and control.
- Sensitize hunters and field biologists on reporting dead wild boars.
- Increase awareness on the fact that the ASF virus is not transmissible to humans.

Food waste disposal

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



Highly pathogenic avian influenza

High activity influenza season

Risk overview

- Highly pathogenic avian influenza (HPAI) viruses can cause severe disease with high mortality in poultry. Wild birds are a reservoir for both high and low pathogenic avian influenza (LPAI) viruses. Three main HPAI strains and several H5 clades are still circulating in western, eastern, southern and southeastern Asia. The risk of new outbreaks occurring in affected countries can be considered high for the period January to March 2019.
- H5N1 HPAI continues to be reported in China, Cambodia, Indonesia and Viet Nam and was re-introduced in the Lao People's Democratic Republic and Malaysia in 2018. The H7N9 virus (HPAI and LPAI) is circulating in poultry in China and can pass from birds to humans.
- A recent H5N6 HPAI expansion has particularly struck the poultry sector of Japan, the Republic of Korea and Taiwan Province of China. In July–August 2017, the virus was detected for the first time in the Philippines and was also re-introduced in Myanmar. The last reporting of H5N6 HPAI was in China and Viet Nam in October–November 2018.
- The currently circulating H5N8 HPAI strain emerged in China in May 2016 and has been spreading since. It has already spread to Japan, India, Iran (Islamic Republic of), Nepal, the Republic of Korea and Pakistan, with the potential of affecting additional countries. In the Middle East, H5N8 HPAI introductions were detected in poultry farms in Israel and Kuwait in December 2016, Kazakhstan in January 2017 and Saudi Arabia in December 2017, where it was last detected in July 2018.
- Some strains of H5N1, like those circulating in Egypt, east and southeast Asia and east Africa can cause illness and death in humans. H7N9 and H5N6 viruses can also cause severe disease in humans.

Potential impact

- Based on seasonal patterns, an increase in the number of HPAI outbreaks in poultry is expected during the period January to March 2019. Lower temperatures that favour virus survival in the environment, along with major local festivals (e.g. Chinese New Year or Tết) are suitable conditions for a seasonal increase in avian influenza activity.
- Economic impact of poultry outbreaks is significant due to high poultry mortalities, production losses and costs due to culling of in-contact flocks, a policy implemented to stop further spread. Movement restrictions and closure of export markets add to the economic burden. In countries with strong veterinary capacity and well-regulated poultry production and marketing systems, it is possible to eliminate incursions through rapid identification of infected birds and stamping out. However, some countries in Africa and southeast Asia may not be well prepared, hence not having the capacity to respond in a timely manner due to the possible delay in the detection of HPAI incursions, which may be under-reported.
- Some HPAI virus strains such as H5N6 and H5N1 have shown to cause disease and mortality also in wild bird species. This can significantly impact protected wild bird populations, which may already be on the list of endangered species and biodiversity.

Recommended early actions

Animal disease containment in its broadest sense should be prioritized by governments and supported by budget allocations and legislation. Countries should continue mitigating any potential impact of the ongoing avian influenza season (up to March 2019).

- Assess levels of national preparedness, notably the status of contingency plans, field and diagnostic capacities as well as material and equipment for rapid response such as disinfectants and personal protective equipment for operators undertaking disease control measures.
- Ensure means for laboratory testing are in place to detect the currently circulating avian influenza viruses.
- Increase surveillance efforts in poultry and monitor wild bird mortalities as well as reporting mechanisms for sick or dead birds.
- Revise and/or enhance biosecurity measures implemented in farms, households and live bird markets, and mobilize resources for preparedness, communication and, in case of virus incursion, response activities.
- Ensure proper communication on good hygiene practices at abattoirs and in food preparation.
- Advocate against the use of dead fowl as feed for other species (zoological collections, companion animals, or livestock).

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

For more information
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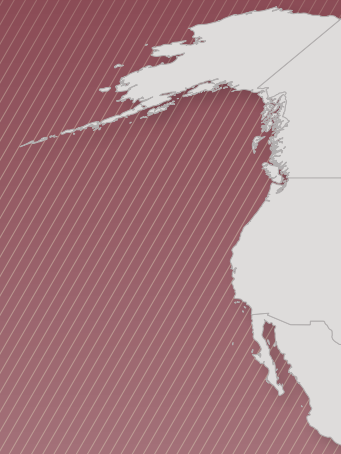
www.fao.org/emergencies/fao-in-action/ewea



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