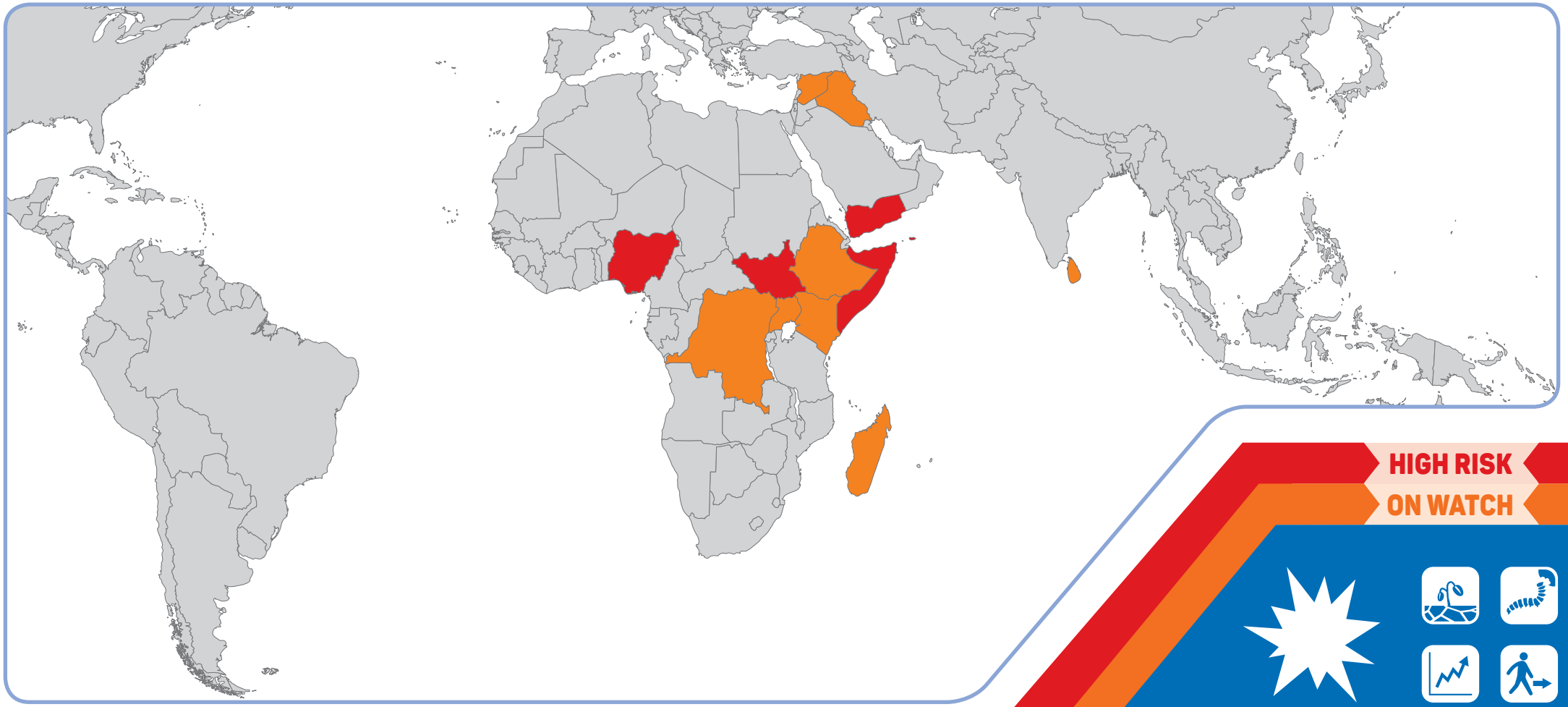
Food and Agriculture Organization
of the United Nations

GLOBAL EARLY WARNING – EARLY ACTION REPORT ON FOOD SECURITY AND AGRICULTURE

APRIL – JUNE 2017



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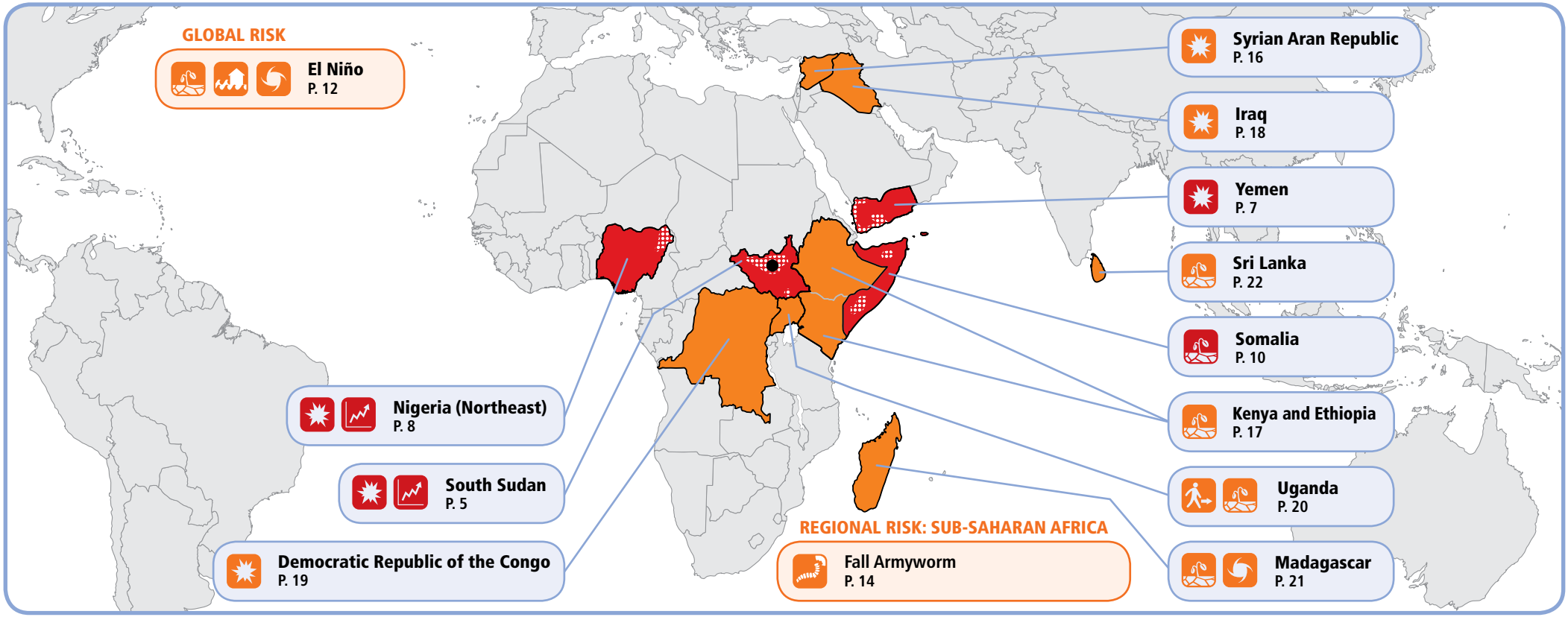
GLOBAL RISK MAP
APRIL – JUNE 2017

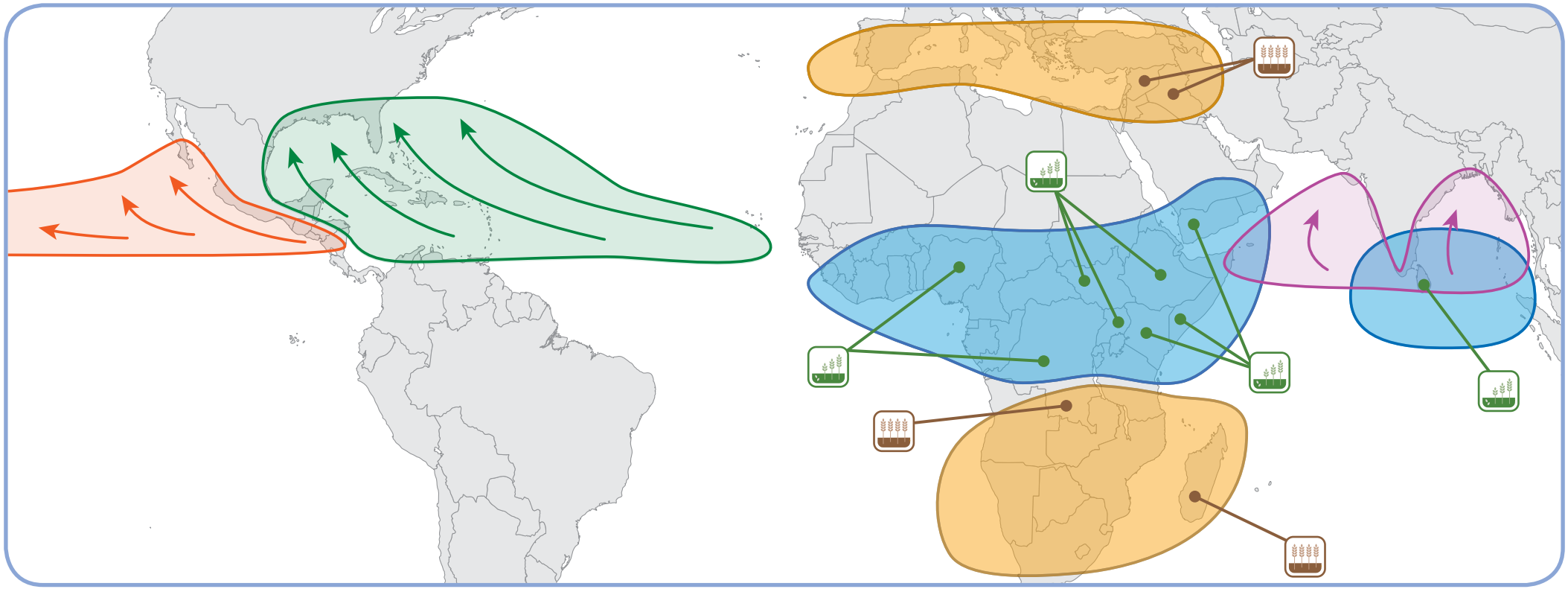
This forward-looking report highlights major disaster risks to food security and agriculture in the indicated reporting period. When a new emergency or deterioration of the current situation is very likely and might have severe impacts, it is indicated as "high risk". In the case of moderate to high likelihood and moderate or significant impact, the risk is listed as "on watch". Ongoing humanitarian crises, such as protracted emergencies, are not highlighted in this report unless a deterioration is likely. For an overview of all ongoing humanitarian emergencies, please refer to the map on page 24.



SEASONALITY MAP
APRIL – JUNE 2017

The Global Seasonality Map provides overview of the agricultural and climate seasonality of the countries highlighted in this report. The agricultural seasons are country-specific and provide an insight into the status of the main (staple) crops during the reporting period. The climatic areas provide a general overview of regional weather patterns as well as tropical cyclone basins relevant to the reporting period.

The map is indicative and does not give exact geographical delineations. For more country specific details on the agricultural seasons of different crop types please visit the GIEWS Country Briefs page: http://www.fao.org/giews/countrybrief/index.jsp.



CLIMATE SEASONS

Rainy

Dry

AGRICULTURAL SEASONS IN COUNTRIES AT RISK

Harvesting

Planting/Growing

TROPICAL CYCLONE FORMATION BASINS

Northeast Pacific Basin
June-October
Peak: September

North Atlantic Ocean
June-November
Peak: September

North Indian Basin
April-December
Peak: May and November

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

José Graziano da Silva,
FAO Director-General.

Background

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

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

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

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

Countries affected by protracted crises or already in the response stage of an emergency, where there are limited signs of a significant deterioration, are not included in the report. However, an overview of countries with humanitarian response plans or emergency plans is provided on page 24.

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

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

Additional corporate information and external sources are also consulted for the development of this report. A detailed list is available on page 23.

Through a consensus-based process countries, have been indicated as "high risk" when there is a very likely new emergency or deterioration of the current situation with potentially severe effects on agriculture and food security, and in which FAO and partners should start implementing early actions on a no-regret basis. Countries listed as "on watch" instead have a moderate to high likelihood of a new emergency or deterioration of the current situation, with potentially moderate or significant impacts on agriculture and food security. An overview of the risk ranking methodology is provided on page 4.

Methodology

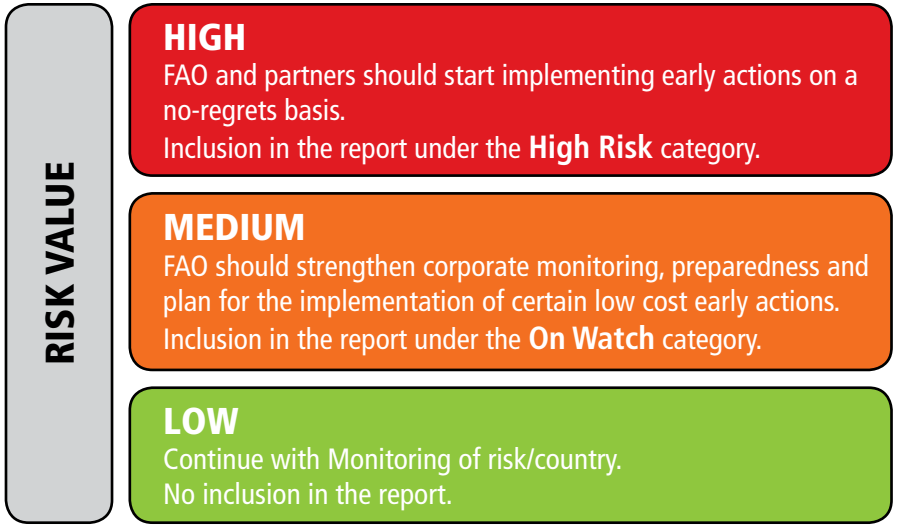
The most at-risk countries and regions are selected through a consultative process led by the early warning system focal points group (which includes the IPC). The group also serves as the report's key source of information (as outlined in the List of sources section). The main steps of the methodology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

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

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

- likelihood of occurrence is classified into five levels (very unlikely, unlikely, moderately likely, likely and very likely). The term likelihood applies to the probability that, within the time period considered, either a new disaster risk or the significant deterioration of the situation will occur;
- potential impact is ranked into five levels (negligible, minor, moderate, severe and critical). The impact is analysed through two dimensions, in terms of magnitude (the number of potentially affected people and/or geographical extent of the impact on agriculture and people's livelihoods and food security) and severity (the gravity of the impact on agriculture and people's livelihoods and food security, especially in relation to pre-existing vulnerability and food insecurity); and
- country capacity to cope with and respond to potential disasters or deteriorated situations is also classified into five levels (very low, low, medium, high and very high). Lack of coping capacity, one of the Index for Risk Management's (INFORM) dimensions, is used as a reference.

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



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

Recommendations for early actions

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

SOUTH SUDAN

Famine and conflict

Conflict and economic crisis disrupting agriculture, food availability and access

1 Risk overview

- As declared by IPC in February 2017, 100 000 people are in famine conditions in parts of Unity State. This situation is the result of a protracted conflict and economic crisis, which severely disrupted agriculture, livelihoods and markets and impacted households' coping capacity. Furthermore, insecurity is hampering access to people in urgent need of humanitarian assistance.
- As of April 2017, an estimated 4.9 million people – over 40 percent of the total population – are faced with severe food insecurity, representing a 30 percent increase from the 3.8 million in January 2017. Food insecurity has increased drastically in several regions and particularly in the Greater Upper Nile region, where most of the severely food insecure people are located. In famine-affected counties, over 20 percent of the population are experiencing severe acute malnutrition (SAM).
- Insecurity and displacements have increased in the main cereal producing regions, greatly affecting crop production in 2016. In the Greater Equatoria, cereal production was estimated to be 40 percent lower than the previous year.
- Prices of staple foods continue to remain very high, due to limited supply, disruptions of markets and trade linked to insecurity, inflation and depreciation of the local currency. Despite recent harvests in early 2017, prices remained between two and four times above their earlier levels.

2 Potential impact

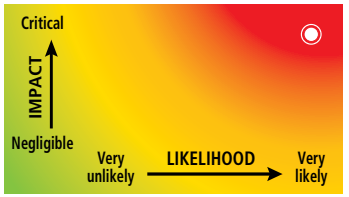
- Food insecurity is expected to increase towards the peak of the lean season in July, with an estimated 5.5 million people projected to be in IPC Phases 3, 4 and 5. Of these, over 1 million people will be in IPC Phase 4 (Emergency) and at risk of famine if sufficient and timely humanitarian assistance is not provided.
- In southern bimodal rainfall areas – despite a timely onset of rains in March – prospects for the first season harvest are uncertain, as widespread insecurity disrupted agricultural activities, causing massive population displacements and loss and depletion of productive assets.
- Weather forecasts for March to May 2017 predict above-average rainfall in southeastern areas and below-average rainfall in southwestern areas. As the dry season progresses, the potential increase in conflict could lead to further deterioration of food security and disruption of the ongoing cropping season.

Seasonality: [April – June]

Planting/Growing

Rainy

Risk: High



3 Recommended early actions

Considering the urgency and complexity of the crisis, a swift and focused response is needed to save lives and livelihoods. In this context, support to agriculture and agriculture-based livelihoods is critical and complementary to emergency food assistance. The following initiatives should be further supported:

- urgently provide food and cash-based lifesaving assistance to the most vulnerable groups;
- support farmers with seeds and inputs for the ongoing cropping season, currently at the planting stage, as it will be crucial for food security outcomes in the next months;
- increase the distribution of fishing kits to people living in wetlands in famine-affected areas to provide an immediate source of food and income;
- support voucher schemes focused on nutrition;
- increase seed production through local farmer networks in accessible areas;
- provide main season livelihood support (e.g. vegetable cultivation kits) through rapid response initiatives, complemented by capacity building on post-harvest processing, particularly on food conservation and utilisation;
- safeguard pastoralist assets in accessible areas through livestock vaccinations and treatments; and
- support the most vulnerable population groups in urban and peri-urban areas (specifically Juba and Wau) by fostering urban and peri-urban agricultural production, income generating activities and voucher systems to provide access to food and inject cash into the local economy.

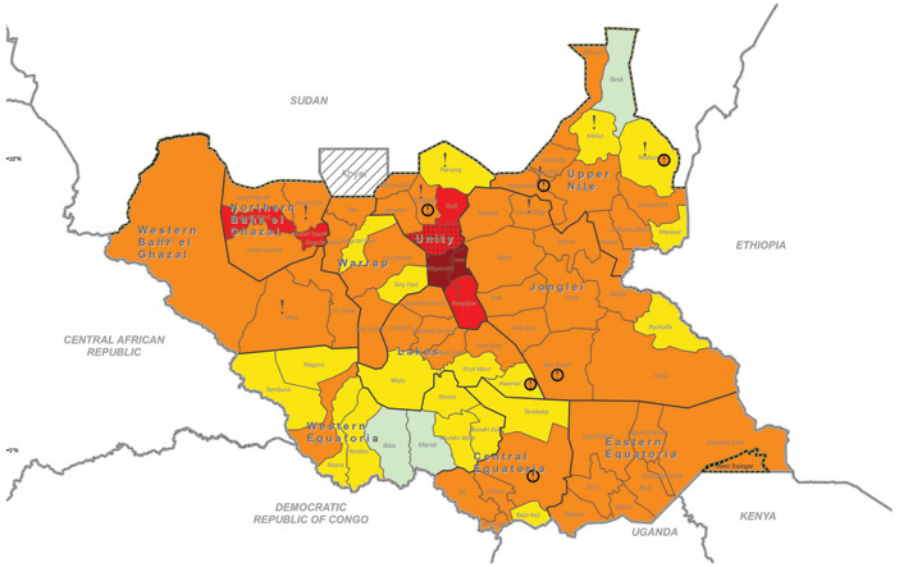
HIGH RISK

SOUTH SUDAN

IPC phase classification

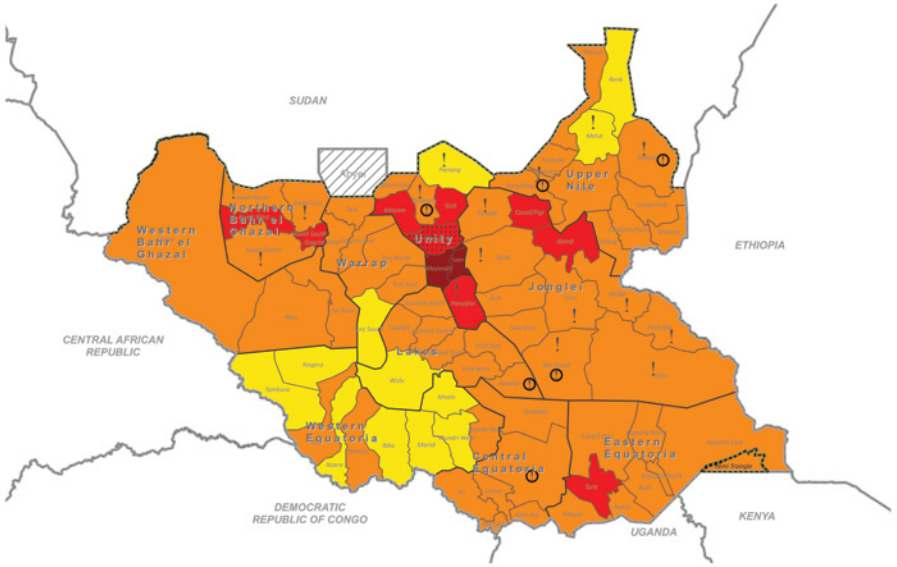
- Minimal
- Stressed
- Crisis
- Emergency
- Famine
- No data
- Elevated risk of famine
- Displaced population in camps (color depicts phase classifiction)
- ! Area would likely be at least 1 phase worse without effects of humanitarian assistance

Acute food insecurity situation in South Sudan Projected IPC acute analysis (February 2017 – April 2017)



Source: IPC (2017)

Acute food insecurity situation in South Sudan Projected IPC acute analysis (May 2017 – July 2017)



Source: IPC (2017)

YEMEN

Localized risk of famine linked to conflict

Conflict-driven food insecurity

1 Risk overview

- Conflict continues to negatively affect the agriculture sector, increasing the risk of famine. From March 2017, over 17 million people (60 percent of the population) are estimated to be in crisis (IPC Phase 3) or emergency (IPC Phase 4), requiring urgent humanitarian assistance. This represents a 17 percent increase of people in IPC Phases 3 or 4 since October 2016.
- Accessibility restrictions continue to hamper humanitarian efforts. Specifically, Al Hudaydah port (which controls 80 percent of Yemen's imports) remains severely damaged and insecure.
- Four governorates (Abyan, Taiz, Al Hudaydah and Hadramout) have global acute malnutrition (GAM) prevalence above the World Health Organization critical threshold. Seven and eight governorates have GAM prevalence at serious or poor levels, respectively.
- Declining purchasing power, high food prices and erratic public sector payments continue to exacerbate a declining economic situation. Compared to pre-crisis levels, 78 percent of households report being economically worse off.
- Some 85 percent of households are still unable to access key agriculture inputs due to inaccessibility and high prices, and 45 percent of households have reduced their herds' sizes due to diseases or distress selling. Before the crisis, Yemen imported 90 percent of cereal supplies, but as of February 2017, the Central Bank declared credit for wheat imports would seize.
- In February 2017, the Emergency Food Security and Nutrition Assessment revealed that 60 percent of households have resorted to negative coping strategies.
- Since January 2017, over 2 million internally displaced people (IDPs) and 1 million IDP returnees were reported.
- Breeding locusts present an additional risk from April 2017. In Marib, Shabwah and Hadhramaut governorates, recent rains could instigate a generation of breeding in spring (and potentially into the summer).

2 Potential impact

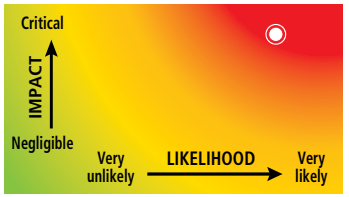
- The ongoing conflict will continue to hamper all sectors, compounding an already disastrous food insecurity situation, with some areas at risk of Famine (IPC Phase 5). Accessibility issues are likely to negatively impact the delivery and cost of humanitarian supplies, which could further instigate displacements.
- As of January 2017, commercial wheat gain stocks are estimated at 940 000 tonnes and can meet the country's needs for three months. But, the ability to replenish these stocks is limited due to the shutdown in trade financing and reduced domestic production capacity.

Seasonality: [April – June]

Planting/Growing

Rainy

Risk: High



3 Recommended early actions

To address the increasing risk of famine, access to communities is required to support early actions which provide both emergency humanitarian assistance alongside resilience initiatives. With this approach, the following actions are recommended:

- urgently provide food and cash-based lifesaving assistance to the most vulnerable groups, prioritising malnourished children under five and pregnant/lactating women;
- initiate cash-for-work activities to generate income and support value chains;
- support emergency livelihood support, especially for agriculture, livestock and fishing dependent communities. In particular, support backyard income-generating activities and food production to complement, enrich and diversify food intake of severely food insecure and IDP households;
- safeguard pastoralist assets through livestock vaccinations, health treatments and restocking;
- manage the threat of locusts by supporting local authorities through the provision of equipment and capacity building efforts critical to containing the locust spread;
- support rain-fed agriculture and livestock production by improving water access and availability through the adoption of water harvesting techniques; and
- continue monitoring risk of famine indicators in prone governorates and pocket areas.

Moreover, the international community needs to take urgent action to prevent the food security situation from worsening and advocate for lifting import restrictions and improving accessibility.

HIGH RISK

NIGERIA (NORTHEAST)

HIGH RISK

Localized risk of famine linked to conflict

Deterioration of conflict-driven food insecurity

1 Risk overview

- The level of food insecurity is still at alarming levels in northeast Nigeria and has hardly improved since the last Cadre Harmonise' (CH) analysis in March 2017. Humanitarian assistance needs to be escalated in Adamawa, Borno and Yobe States to save lives and protect the livelihoods as well as reduce consumption deficit of the worst-affected people.
- In March – May 2017, evidence demonstrated that despite the humanitarian assistance in Borno, Adamawa and Yobe states, the food security and nutrition situation remains very fragile. About 4.7 million people are acutely food insecure (CH Phases 3-5) in the three northeastern states, of which 3.2 million people are in crisis (CH Phase 3), 1.4 million people in emergency (CH Phase 4) and 44 000 people in famine (CH Phase 5).
- According to the International Organization for Migration (IOM), over 1.8 million people are internally displaced as of March 2017, while over 200 000 are refugees in neighbouring Niger, Cameroon and Chad.
- The situation is further compounded by the increase in food prices mainly due to the depreciation of the Nigerian Naira and access restrictions experienced by humanitarian partners to reach people in need.
- The funding requirement for the implementation of the Humanitarian Response Plan in Nigeria is currently funded at 16 percent with a funding gap of USD 882.6 million, hampering adequate assistance.
- Highly pathogenic avian influenza (HPAI) H5N1 and/or HPAI H5N8 outbreaks in poultry are highly likely to occur in the country due to further spread of the virus already present in the country or due to new incursions.

2 Potential impact

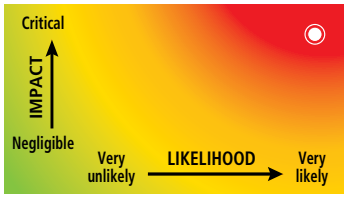
- Food security is expected to deteriorate from July to August 2017 due to the lean season. The number of people facing crisis (CH Phase 3), emergency (CH Phase 4) and famine (CH Phase 5) in the three most affected states will increase to 5.2 million, including more than 50 000 people in famine.
- The effects of ongoing conflict have caused the disruption of livelihood activities and normal supply of markets, thus significantly affecting the availability of food and people's physical and economic access to food. Influx and movement of IDPs, rising food prices and localized conflict between pastoralist and farmers are likely to continue driving food insecurity.
- Humanitarian access will be limited due to access restrictions in Borno State and some remote areas of Adamawa and Yobe States due to active conflict.

Seasonality: [April – June]

Planting/Growing

Rainy

Risk: High



3 Recommended early actions

Considering the very high levels of food insecurity, the massive displacement of farmers, herders and fishers and the lack of access to food and livelihoods, the following early actions are to be considered for the period of April – June to help mitigate a further deterioration of the situation:

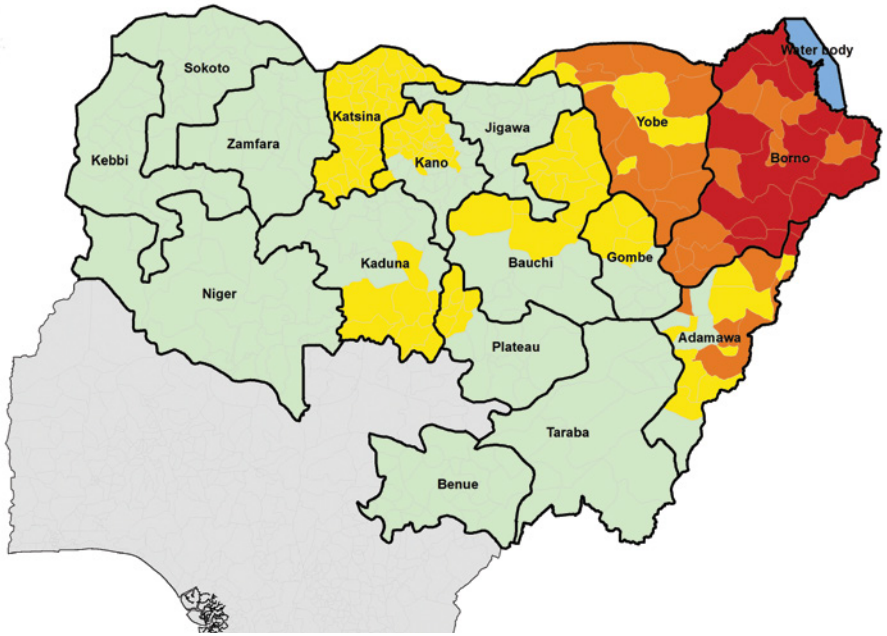
- in light of the approaching lean season anticipated to start early in the affected areas, ensuring that the most vulnerable households including IDPs, host communities and returnees have adequate access to sufficient and nutritive food is a priority especially in the hard-to-access areas where the risk of localized famine is the highest;
- assist smallholder agricultural IDPs and returnees in the severely food insecure areas to restore their livelihoods through the provision of seeds, tools and fertilizers in preparation of the main cropping season to start in early May;
- support vulnerable herders, particularly women-headed households owning small ruminants, through fodder supply and animal health interventions through in-kind distributions or cash transfers;
- facilitate the access of displaced vulnerable fishers to emergency aquaculture interventions especially through tanks, fingerlings and fish feeding supplies; and
- raise awareness on the risks of explosive devices and promote social cohesion and gender.

NIGERIA (NORTHEAST)

IPC phase classification

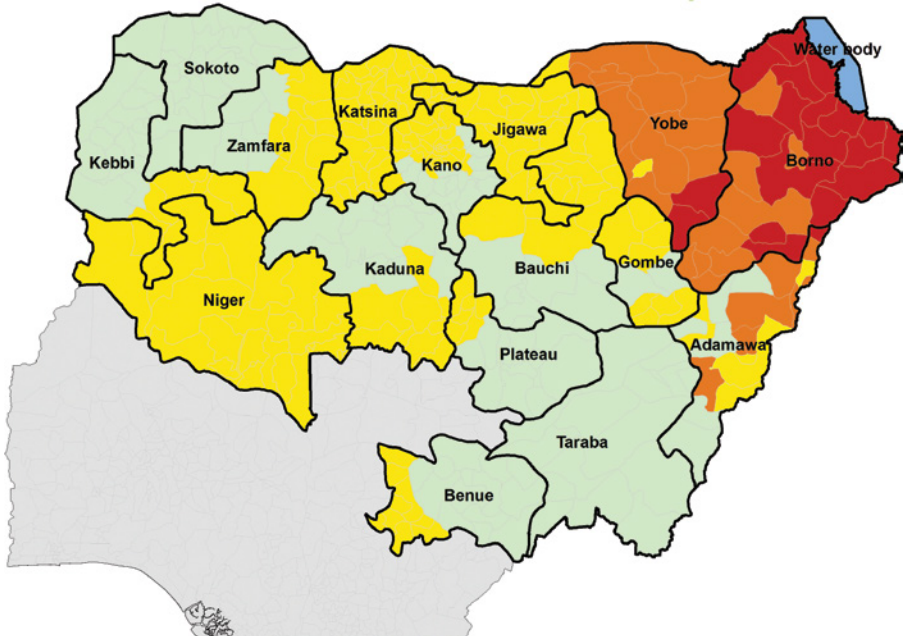
- Not analyzed
- Minimal
- Under pressure
- Crisis
- Emergency
- Famine
- Lake Chad
- LGA administrative border

Food and nutrition insecurity in Nigeria Projected Cadre Harmonisé analysis (March 2017)



Source: Cadre Harmonisé Analysis (2017)

Food and nutrition insecurity in Nigeria Projected Cadre Harmonisé analysis (June 2017)



Source: Cadre Harmonisé Analysis (2017)

SOMALIA

Localized risk of famine due to continuing drought

Increasing food insecurity and potential risk of famine due to ongoing drought conditions

1 Risk overview

- In January 2017, the Food Security and Nutrition Analysis Unit (FSNAU) – Somalia and the Famine Early Warning Systems Network (FEWSNET) warned of the rapidly deteriorating food security in Somalia and the risk of famine as a result of the severe ongoing drought. These early warnings triggered a large scale response.
- Despite the surge in response, the risk of famine remains and the situation could further deteriorate if the Gu rains – which have already begun in parts of the country – perform well below the current forecast (slightly below average).
- Half of Somalia's population (6.2 million people) need humanitarian assistance. Nearly 3 million people are in IPC phase 3 and 4 and cannot meet their daily food requirements.
- In 2016, farmers suffered an entire year of significant food supply and income loss, including a 50 percent reduced Gu harvest mid-year, compounded by a 70 percent reduced Deyr harvest at year-end. This left farmers without seeds to plant, cut wage labour income and increased food and water prices. Livestock were weakened, supplying less milk and meat and worth increasingly less.
- As livelihoods and coping strategies erode, people are becoming destitute and migrating in greater numbers. Many are on the move searching for pasture and water for their livestock, while leaving few productive animals behind. According to the Office of the United Nations High Commissioner for Refugees (UNHCR), more than 500 000 people have been internally displaced since November 2016.
- Furthermore, acute watery diarrhoea/cholera is spreading at a rapid pace due to poor health conditions and worsening drought. More than 22 000 cases and 492 deaths were reported since the beginning of 2017.

2 Potential impact

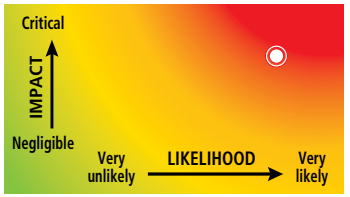
- According to the FSNAU/FEWSNET Somalia Food Security Outlook (February – September 2017), food security is expected to deteriorate through June, the end of the agropastoral lean season.
- In a worst-case scenario, where the April – June rains perform well below the current forecast and humanitarian assistance fails to reach people most in need, famine (IPC Phase 5) is expected.
- If such conditions prevail, famine could be witnessed in rural areas, especially in the southern breadbasket (Bay and parts of Bakool) and northeastern pastoral areas (Puntland).
- Insecurity in southern and central Somalia continues to impact humanitarian operations and may hamper the delivery of critical assistance to drought-affected households.

Seasonality: [April – June]

Planting/Growing

Rainy

Risk: High



3 Recommended early actions

In order to prevent famine in drought-affected areas of Somalia, the following activities are recommended to be undertaken by food security partners between April and June, in line with the Office for the Coordination of Humanitarian Affairs' (OCHA) Operational Plan for Famine Prevention:

- scale up life-saving assistance to increase food access (in-kind, voucher, unconditional and conditional cash grants);
- protect pastoral livelihoods by scaling up emergency livestock interventions such as fodder/feed supplements, veterinary care (deworming and supportive treatment) and water for livestock in complementarity with WASH partners;
- provide livelihood inputs to farmers and agropastoralists for the Gu 2017 planting season beginning in April and to riverine fishing communities; and
- continue cash-for-work and livelihood support (CASH+) activities aiming at producing food while meeting immediate needs.

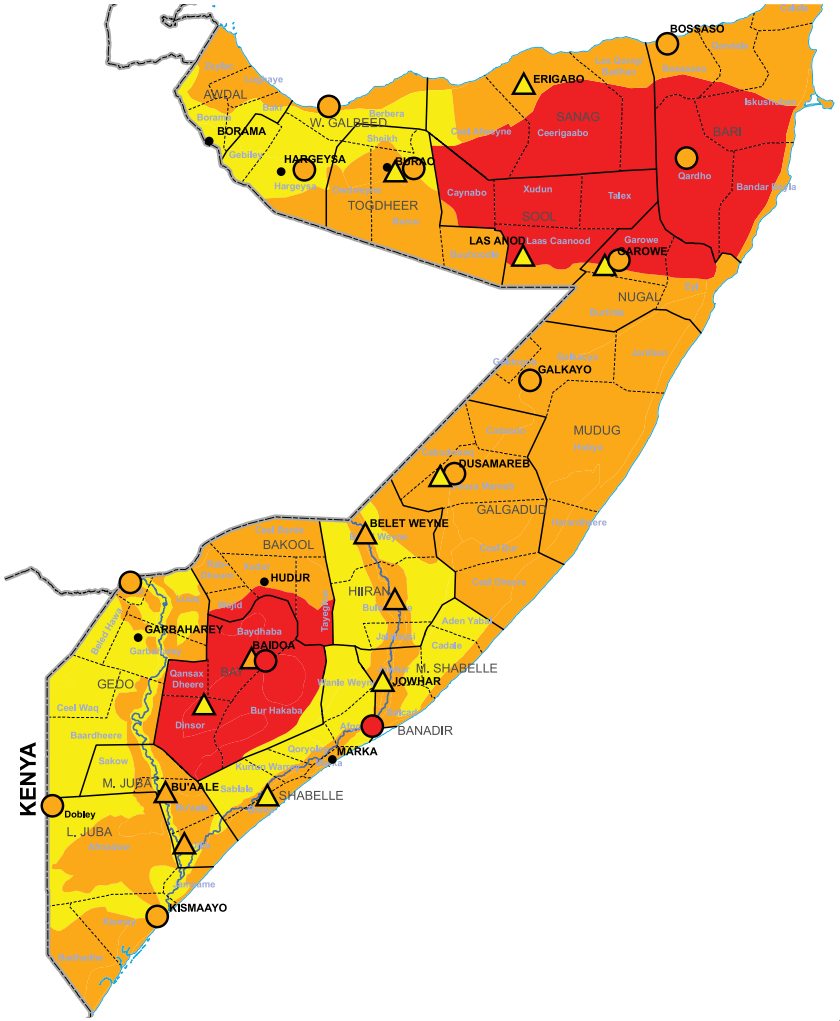
HIGH RISK

SOMALIA

IPC phase classification

- Minimal
- Stressed
- Crisis
- Emergency
- Famine
- Not analyzed
- Areas with inadequate evidence
- IDP settlement Color depicts phase
- Urban settlement Color depicts phase

Acute food insecurity situation in Somalia
Projected IPC acute analysis
(February 2017 – June 2017)



Source: IPC (2017)

HIGH RISK

EL NIÑO

Drought, floods and cyclones

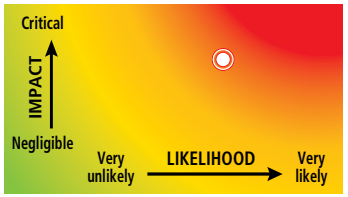
1 Risk overview

- According to the latest forecasts, there are increasing chances for El Niño to occur in the second half of 2017, with a probability at about 50 percent. This represents a high chance, from nearly twice to a third higher compared to the historical probability for the period August to December.
- In early 2017, the unusual increase in sea surface temperature that occurred in the Pacific along the northern coast of South America led to severe floods in Colombia (the Putumayo Department), Ecuador and especially Peru. During El Niño, this region is usually affected by flooding. While the phenomenon is not officially declared nor is there certainty of its occurrence in the future, local sources are defining these events as a "coastal El Niño", which up to April 2017 affected around 1.1 million people in Peru.
- A back-to-back El Niño-La Niña-El Niño sequence is not unprecedented having already happened various times in the past (e.g. 1963-1964-1965, 1995-1996-1997 and 2004-2005-2006).

2 Potential impact

- While the climatic phenomenon usually peaks in intensity between October and January, changes to climatic patterns and their related impacts on food security and agriculture can happen both before and after the peak. Reduced rainfall and drought is often the key outcome of El Niño, yet at the same time it can cause heavy rains and flooding.
- An early onset of El Niño in mid-2017 could impact the agricultural seasons of several regions. According to historical analysis, this could occur in areas of Central America and the Caribbean, South America, South Asia, East Asia and several island states of the Pacific.
- In the case of an El Niño onset from mid to late 2017, this could have global consequences on the cropping seasons in late 2017 and early 2018, especially in regions that have already suffered and are still recovering from the impacts of the previous El Niño, such as Southern Africa.
- El Niño can also have severe impacts on marine ecosystems and fisheries, due to the consequences of temperature and current changes on fish stocks and bleaching of coral.
- Notwithstanding the uncertainty of climatic forecasts in this period of the year, certain long range forecasts indicate an increased chance of below-average rainfall for Central America and the Caribbean and Southeast Asia. These areas have already been heavily impacted and are still recovering from the 2015–2016 El Niño-induced drought.

Risk:
On watch



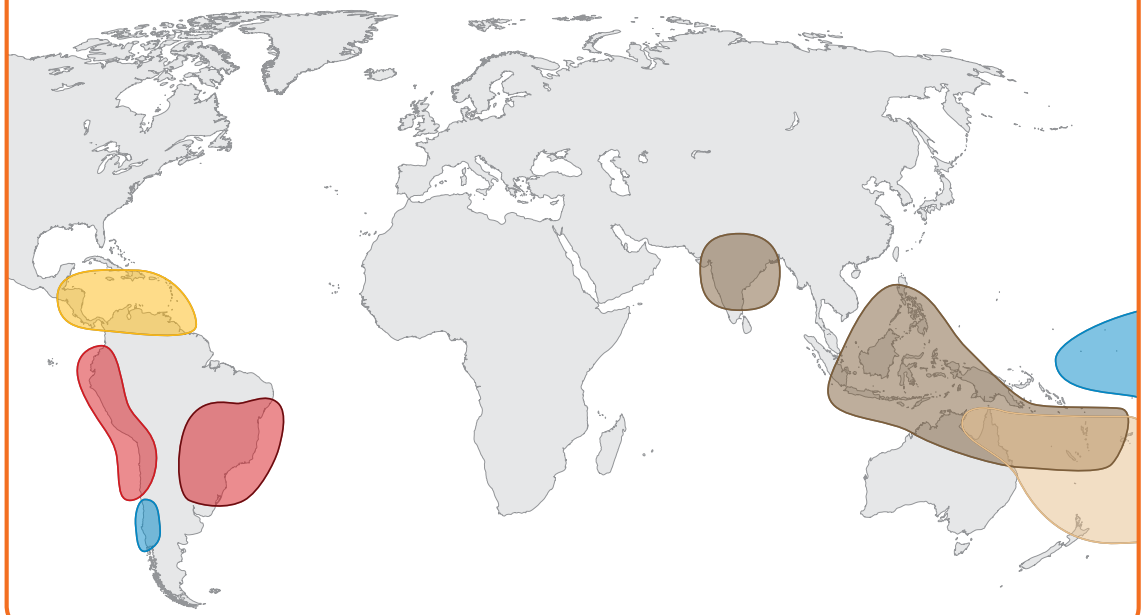
3 Recommended early actions

Based on the lessons learned from the 2015–16 El Niño phenomenon, the following actions are recommended:

- *At the global level:*
  - strengthen the coordination and preparedness capacity of the international community, through the testing of the inter-agency El Niño Southern Oscillation (ENSO) Standard Operating Procedures, which will guide collective early action in relation to ENSO events; and
  - increase joint monitoring and analysis of potential El Niño impacts.
- *At the regional and national level:*
  - increase monitoring of climatic forecasts;
  - assess and update the previous 2015–2016 El Niño response, contingency or preparedness plans to cater for the current context; and
  - in areas likely to be affected by drier than average conditions:
    - review the actual and likely availability of drought-tolerant and early maturing varieties of crops through the market and as direct distribution, if required;
    - review the ability of the extension service to advise and support on key drought-tolerant and early maturing varieties, and highlight areas which should be addressed;
    - review the state of functional water point coverage and pin-point areas of concern, taking action where necessary to provide adequate provision for livestock; and
    - foresee the strengthening of the monitoring of animal pests and diseases and the provision of animal health support to herders.

HISTORICAL EL NIÑO TRENDS

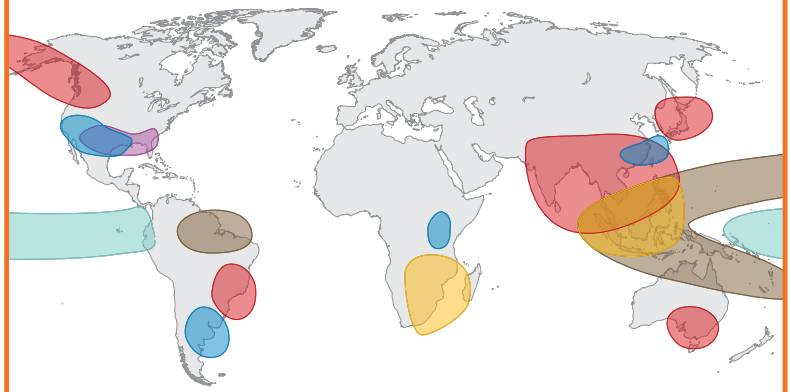
Trend June – August



These maps illustrate global temperature and precipitation patterns related to previous El Niño phenomena.

They are based on the analysis provided by the NWS/NCEP Climate Prediction Center.

Trend December – February



TEMPERATURE AND PRECIPITATION PATTERNS

WET | WARM | DRY | DRY & WARM | DRY & COOL | WET & WARM | WET & COOL

Source: NWS/NCEP Climate Prediction Center

SUB-SAHARAN AFRICA
FALL ARMY WORM

Fall Armyworm outbreak

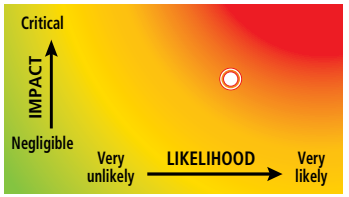
1 Risk overview

- Over the past months, a fall armyworm outbreak has been damaging maize and other cereal crops across progressively increasing areas of sub-Saharan Africa.
- Fall armyworm (*Spodoptera frugiperda*) was first detected in West Africa (Benin, Nigeria, São Tomé & Principe and Togo) in early 2016 and later in Central Africa (Democratic Republic of Congo). Up to March 2017, fall armyworm was reported in Southern Africa (Botswana, Malawi, Mozambique, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe) and East Africa (Burundi, Ethiopia, Kenya, Rwanda, Uganda) and is expected to expand further.
- Zambia has reported the largest pest-affected area in the Southern Africa region, amounting to about 223 000 ha comprising mostly of maize, out of which 90 000 ha required replanting by farmers. In Zimbabwe, 130 000 ha of maize were affected. Given that maize is the main staple in the region, losses caused by the pest could affect the vulnerable food insecure populations.
- In the Democratic Republic of Congo, fall armyworm has impacted 40 percent of agricultural outputs in the Haut-Katanga province. In Ethiopia, fall armyworm was reported in the southwest, where early maize planting took place from January to March. In Kenya, fall armyworm has devastated maize at all physiological stages in the western part of the country and is suspected to be rapidly spreading towards northern, central and southern Rift Valley counties.
- Information on the full impact of the fall armyworm in most of the affected areas is still limited.

2 Potential impact

- Fall armyworm is a moth native to the Americas which can reproduce several times per year and has a fast spread potential. In its larvae stage, it feeds mainly off maize and other cereals, causing significant yield losses or reduced grain quality and quantity.
- The pest may continue to further spread in the already affected countries as well as to other neighbouring countries, considering its ability to fly long distances.
- The delayed control and management of fall armyworms might incur high costs (i.e. in Brazil, its cost is estimated at USD 600 million per year).

Risk:
On watch

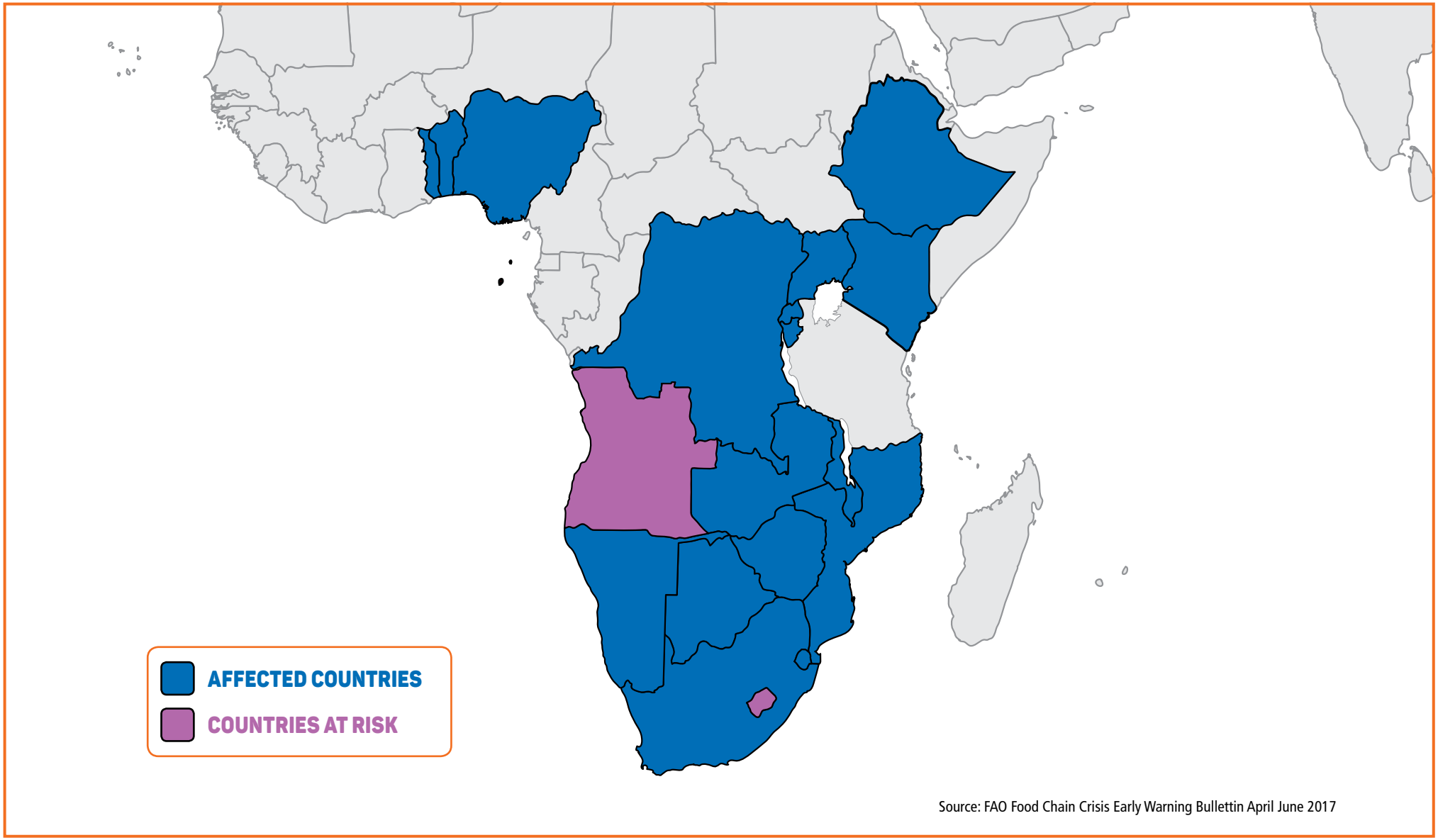


3 Recommended early actions

In order to contain the spread of fall armyworm, global and regional emergency meetings are being held and coordination cells put in place. FAO is currently supporting countries in the implementation of assessments aimed at understanding the extent and intensity of the armyworm threat, as well as identifying effective management options based on an integrated approach supported by a cross-country pest surveillance system and information exchange. The following initiatives should be considered to reinforce the existing efforts:

- support country assessments of fall armyworm impact (distribution/mapping, infestation levels, damage, yield loss, pest populations and conducting case studies);
- strengthen regional coordination through early warning systems;
- establish or strengthen national surveillance systems by FAO and partners through provision of technical assistance and advice;
- support the procurement of surveillance kits, pheromone traps and lures to monitor pest populations and spread; and
- distribution of technical guides with protocols to countries to help with pest identification and control measures.

SUB-SAHARAN AFRICA
Fall armyworm outbreak: countries affected and at risk



Source: FAO Food Chain Crisis Early Warning Bullettin April June 2017

SYRIAN ARAB REPUBLIC

Conflict

Potential further deterioration of food security due to conflict

1 Risk overview

- The persistent conflict in Syria continues to generate an insecure and volatile situation. Food security is expected to further deteriorate as households exhaust their capacity to cope.
- Escalation of conflict in Idleb, Dar'a and Hama governorates has been reported. In particular, this has resulted in the suspended delivery of cross-border humanitarian assistance in Dar'a since February 2017.
- Approximately 7 million people in Syria are estimated to be food insecure, with an additional 2 million at the risk of food insecurity. These figures include 4.5 million people in hard-to-reach areas and up to 400 000 in 15 besieged locations.
- Food production has plunged, with 90 percent of households spending at least half of their income on food and over half the population struggling to meet their daily food needs.
- Agriculture and livestock production continues to face severe constraints. In particular, pockets of drought were recorded in the later part of March 2017, which could impact the May/June 2017 cereal harvest.
- Large areas of arable land have been destroyed or are inaccessible. Compounding this issue is the reduced availability and increased costs to farming inputs (seeds, fertilizers, animal feed, veterinary services) and damage to farming equipment and infrastructure (irrigation, storage, seed processing facilities). In particular, the governorates of Al-Hasakeh, Ar-Raqqa, Rural Damascus and Idleb have experienced significant losses.
- In total, 6.3 million people have been internally displaced and 5 million Syrian refugees are registered in neighbouring countries. Across four of the principal host countries of Syrian refugees (Egypt, Jordan, Lebanon and Turkey), the majority of the population are food insecure.

2 Potential impact

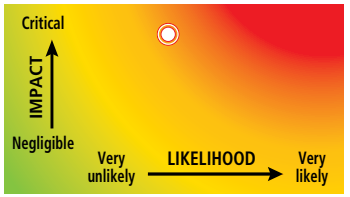
- Food security is likely to deteriorate as a result of the continuous conflict, especially in the restricted and besieged locations. Dependency on food assistance is likely to increase in 2017.
- In the absence of a political conflict resolution, intense and widespread hostilities are likely to continue. This could further restrict access to arable land for the upcoming cereal harvest and could potentially contribute to further displacements.
- Limitations in the water network supply are likely to remain, particularly if drought-like conditions continue. This could result in communities using alternative sources such as unprotected wells. Such restraints could hamper irrigation activities and increase water-borne diseases.

Seasonality: [April – June]

Harvesting

Dry

Risk: On watch



3 Recommended early actions

Early actions should be tailored to the situation existing in different parts of the country. In this regard, there are broadly three tiers that can assist with defining these areas:

- tier 1: Governorates with high damage/loss and vulnerability scores (Aleppo, Ar-Raqqa and Deir-ez-Zor);
- tier 2: Governorates with very substantial damage/loss and vulnerability scores (Rural Damascus, Homs, Idleb, Hama, Dar'a and Quneitra); and
- tier 3: Governorates with low damage/loss and vulnerability scores, but are still indirectly impacted by the crisis (As-Sweida, Lattakia and Tartous).

Overall, the international community needs to invest in the recovery of the agriculture sector. Such investment could help stem migration movements and support livelihood recovery. If neglected, food security issues could intensify and compound the ability to rehabilitate agriculture-based livelihoods. In this light, the following recommendations should be considered:

- improve value chain approaches for the upcoming barley and wheat harvests, including post-harvest management, storage, food processing and marketing;
- supply agriculture inputs to famers for the sowing of rice and potato including seeds, pesticides and fertilizer;
- rehabilitate damaged infrastructure, particularly irrigation, through cash-based interventions where the security situation allows;
- support livestock producers by supplying feed, vaccines and shelter; and
- restock small ruminants in stable areas to initiate rehabilitation of depleted rural asset bases.

KENYA AND ETHIOPIA

Drought

Potential below-average long rains could compound the current drought

1 Risk overview

- Substantial areas of Kenya and Ethiopia are currently experiencing a severe drought, which is further hampering pastoral and agropastoral communities' recovery from the 2015–2016 El Niño phenomenon. As of March 2017, the number of food insecure people stands at 5.6 million in Ethiopia (IPC Phase 3 and 4) and 2.6 million people in Kenya (mostly IPC Phase 3).
- The drought and the poor rainfall performance are affecting agricultural and livestock production, reducing food availability and increasing market prices in the agricultural areas along the coast, the southeast and arid pastoral areas in northern Kenya as well as parts of Somali, Afar and some lowland areas of Southern Nations, Nationalities and Peoples Region regions in Ethiopia.
- Food prices are already high as a result of low supply and are expected to increase further as the lean season approaches, adversely affecting poor households.
- The drought has already led to the displacement of hundreds of thousands of pastoralists and agropastoralists, hence increasing the risk of conflicts over scarce resources.
- In Kenya, about 333 000 children are in need of moderate acute malnutrition (MAM) treatment, and a further 73 000 children are in need of SAM treatment. The Afar region in Ethiopia has a GAM rate of 13 percent (serious), while the Somali region has GAM rate of 16 percent (critical). The acute watery diarrhoea/cholera outbreak is further compounding the situation.
- In Ethiopia, fall armyworm was reported in the southwest where early maize planting took place from January to March. In Kenya, fall armyworm was first reported in the west in March 2017, devastating maize at all physiological stages; it is suspected to be rapidly spreading towards northern, central and southern Rift Valley counties.

2 Potential impact

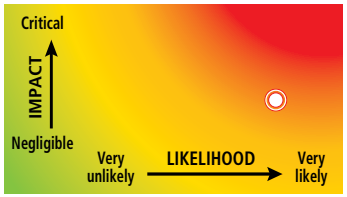
- In Kenya, most households are expected to be Stressed (IPC Phase 2) between May and June, although some households in localized areas especially in Marsabit, Turkana, Mandera and parts of Garissa will remain in Crisis (IPC Phase 3). However, if the long rains are significantly below average, as it is currently projected, it is unlikely that recovery will occur and Crisis (IPC Phase 3) outcomes might continue, with some households likely to experience Emergency (IPC Phase 4) outcomes.
- As the lean season progresses, communities in south and southeastern pastoral areas of Ethiopia are likely to face Crisis (IPC Phase 3) and could be in Emergency (IPC Phase 4) in the absence of humanitarian assistance.

Seasonality: [April – June]

Planting/Growing

Rainy

Risk: On watch



3 Recommended early actions

FAO, in close collaboration with relevant government bodies in Kenya and Ethiopia, undertook a livestock early action and response to prevent livestock mortality and safeguard pastoralist livelihoods, particularly impacted by the current drought. The following early actions are recommended to further support the ongoing activities:

- provide survival animal feed to the most affected agropastoral and pastoral communities;
- emergency provision of water for livestock and/or relocate animals to areas where water and pasture conditions are favourable for livestock rearing;
- increase animal health intervention, such as veterinary service delivery (vaccinations, treatments, etc.) to weakened livestock and livestock disease surveillance;
- engage communities in cash-for-work activities to facilitate the construction and rehabilitation of facilities and infrastructures; and
- scale up livestock offtake and destocking programmes if animal conditions further deteriorate.

IRAQ

Conflict

Conflict and insecurity impacting agriculture in key producing regions

1 Risk overview

- The escalation of conflict, particularly in the city of Mosul, has resulted in widespread displacement interrupting key agriculture systems in surrounding areas.
- Over 3.2 million people are currently food insecure, including 1.5 million facing severe food insecurity due to depleted coping strategies, conflict and disruption to livelihood activities.
- IDPs and households in conflict areas remain the most vulnerable and food insecure, including the 750 000 people still trapped in the western part of Mosul as conflict persists. As of March 2017, over 224 300 people are living in displacement sites and camps as a result of the conflict.
- The conflict in Syria has increased the number of refugees crossing the border into Iraq, who rely heavily on food assistance. To date, 235 000 refugees have been registered, with 97 percent of refugees hosted in the Kurdistan region.
- While favourable growing conditions are reported for the upcoming cereal harvest, ongoing conflict jeopardizes production, particularly in the cereal production belt of Ninewah and Salahaddin. This region traditionally produced over 25 percent of Iraqi wheat and 40 percent of barely. However, large plots of land in these provinces are inaccessible or destroyed, with machinery and irrigation structures damaged.
- Farmers have been reported to be planting uncertified seeds or seeds from past harvests. This issue is further compounded by supply shortages/disturbances and high prices for fertilizers, pesticides and fuel.
- Many pastoralists have been forced to sell livestock at lower prices, either for cash income or an inability to purchase fodder or health treatments.

2 Potential impact

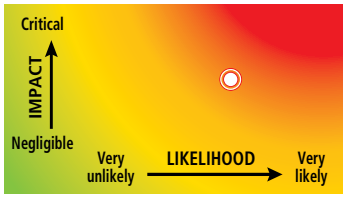
- As conflict persists into 2017, it will continue to impact the ongoing agriculture season and the harvesting of cereal starting in April. This could hamper food stocks and increase the need for humanitarian assistance.
- The situation could further exacerbate due to the influx of Syrian refugees crossing the Iraqi border. Emergency IDP campsites in Hajj Ali and Qayyarah Airstrip to Jad'ah, Khazer, Chamakor and Hasansham have been reported to be reaching full capacity. Overall, increased support is required to accommodate the potential increase in IDPs.
- Iraqi civilians in conflict areas in Mosul and other districts under the control of the Islamic State of Iraq and the Levant are likely to face severe food insecurity due to accessibility issues.

Seasonality: [April – June]

Harvesting

Dry

Risk: On watch



3 Recommended early actions

To support agricultural activities and avoid further deterioration of the food security situation, the recommended initiatives in newly retaken territories are:

- *Agriculture:*
  - supply agricultural inputs for the millet and sorghum season (primarily seeds, fertilizer and tools);
  - rehabilitate water wells and associated irrigation infrastructures and replace stolen and broken pumps;
  - restore agricultural storage facilities and greenhouses;
  - engage in cash-for-work activities to rehabilitate agricultural infrastructure and provide cash payments for the most vulnerable, including IDPs; and
  - supply dairy and fruit processing equipment for the agroindustry.
- *Livestock:*
  - supply fodder and vaccines to pastoralists and set up mobile veterinary clinics to assist pastoralists in the rural areas where they relocated with their stock and in IDP camps;
  - support backyard poultry by rehabilitating poultry houses and replacing egg incubators; and
  - distribute bee hives and honey extraction equipment.

THE DEMOCRATIC REPUBLIC OF THE CONGO (DRC)

Localized conflict

Food insecurity linked to localized conflict

1 Risk overview

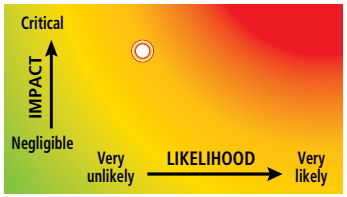
- Food insecurity is worsening and further displacement is ongoing due to the fragile political context and the volatile security situation in the country.
- The growing political tension and the protracted conflict between different armed groups in the east and Kasais continue to affect people's livelihoods and cause displacements. According to OCHA, the number of displaced people in country has reached 2.2 million at the end of 2016.
- Adverse climatic patterns and fall armyworm has impacted the agricultural season A (September 2016 – January 2017) in the southeastern Democratic Republic of Conogo. The fall armyworm was first detected in late 2016 in the country, and has to date impacted 40 percent of agricultural outputs in the Haut-Katanga province.
- Dry conditions in the southeast have affected livestock breeding leading to low milk production and poor animal body conditions.
- Food prices are above average in many markets due to a multitude of factors including the security situation, the adverse climatic events, displacement movements and the depreciation of the Congolese Franc among others.

2 Potential impact

- Considering the fragile political climate, conflict and the ongoing military operations, insecurity is expected to continue during the upcoming months, potentially driving further displacements and disrupting trade and livelihoods.
- There is a risk that the infestation of the fall armyworm might increase over the coming months affecting more crops.
- The B agricultural season (till May 2017) is forecasted to be average, however and due to the above-mentioned outbreaks which might cause crop loss and household income reduction, outputs are likely to be below average in localized areas.

Seasonality: [April – June]

Risk: On watch



3 Recommended early actions

Taking into account contextual diversities, access constraints and conflict-sensitive, coordinated and need-based actions should focus on reinforcing and restoring local livelihood systems and market access in an effort to contribute to sustainable peace and reconciliation. Among the various options, priority actions should be to:

- focus livelihood interventions on key target groups such as refugees, IDPs/returnees and directly affected host communities. Particular focus should be on the displaced people who have no access to land;
- share knowledge and experience, especially targeting women, in order to better market products at local level and organize associations/groups for joint procurement of inputs and services; and
- increase access to markets and food products through the establishment of storage facilities and the improvement of infrastructures linking producers to markets.

UGANDA

Displacement and drought

Influx of refugees from South Sudan and below-average crop production

1 Risk overview

- Fighting and escalation of insecurity in South Sudan have forced almost 1 million South Sudanese to flee to neighbouring Uganda. The massive influx which escalated in the second half of 2016 is likely to compound the food insecurity situation in Uganda, which is currently experiencing a below-average crop and livestock production.
- According to UNHCR, Uganda now hosts over 800 000 South Sudanese refugees, mostly women and children, the majority of whom arrived after July 2016 following the outbreak of conflict in Greater Equatoria. Most refugees are heavily dependent on humanitarian assistance and are currently in a Stressed (IPC Phase 2!) situation.
- In the Imvepi settlement, refugees from South Sudan have been receiving a plot of land on which to build their new homes and grow crops. Refugees additionally are free to access public services such as healthcare and education.
- An estimated 10.9 million people are experiencing Acute food insecurity (IPC Phases 2 and 3), of which 1.6 million are in a Crisis (IPC Phase 3) situation following two consecutive seasons of reduced agricultural outputs. Most of the severely affected households are found in Central 1, Karamoja, Teso, East Central and South Western Regions.
- Due to two consecutive seasons of below-average rainfall (first season: March – June 2016; and second season: September to November 2016), aggregate 2016 cereal production is forecast at about 3.4 million tonnes, below the five-year average. High prices are further compounding the situation.
- Further spread of H5N8 highly patogenic avian influenza is likely to occur in the country. This is the first avian influenza incursion detected in Uganda and the first incursion in the sub-region since 2008.

2 Potential impact

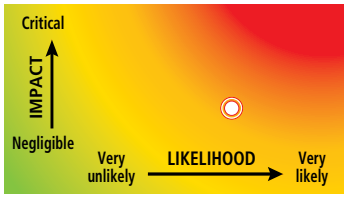
- South Sudanese refugees are expected to remain heavily dependent on humanitarian assistance as well as on casual labor opportunities to sustain their food security throughout the coming months. Available funding only guarantees assistance at current levels through March, and in the absence of assistance, refugees would likely be in Crisis (IPC Phase 3).
- During the February to June lean season, very poor households in Moroto and Napak are expected to face food consumption gaps and be in Crisis (IPC Phase 3), as they have experienced below-average production and have almost depleted their food stocks.
- Stressed (IPC Phase 2) outcomes are likely to persist in bimodal areas (apart from Karamoja) until the June harvest.

Seasonality: [April – June]

Planting/Growing

Rainy

Risk: On watch



3 Recommended early actions

The following initiatives should be considered for the period of April – June 2017:

- support the vulnerable pastoral households through animal health guidance and slaughter destocking components;
- implement cash-for-work initiatives targeting the rehabilitation of agricultural infrastructures and assets (e.g. the distilling of water catchments and construction of new valley tanks);
- foresee the support of livelihood activities to both refugees and host communities to improve food security and access to livelihoods and ensure cohesion among communities; and
- support South Sudanese refugees is rebuilding agriculture livelihoods.

MADAGASCAR

Dry conditions and impact of Cyclone Enawo

Food security deterioration in areas affected by the cyclone, compounded by a reduced rice harvest

1 Risk overview

- A projected decrease in rice production due to dryness which affected the major producing areas in early 2017 is likely to stress the food security situation, especially in areas impacted by the recent Cyclone Enawo.
- About 434 000 people were reported to be directly affected by Cyclone Enawo that hit northeastern Madagascar on 7 March 2017, causing displacements and significant damage to housing, agriculture and household food stocks. The losses in staple and cash crops caused by the cyclone are estimated at 65 percent in Antalaha and Sambava districts (Sava Region), 85 percent in Maroantsetra (Analanjirofo Region) and 58 percent in the districts of Brickaville (Atsinanana Region), Farafangana and Vangaidrano (Atsimo Atsinanana Region).
- The central high plains and southeastern Madagascar experienced severe dryness and drought in January and early February, causing a delay of one to two months in the main rice cropping season. Overall, the 2017 rice production is expected to be lower by at least 10 percent compared to the five-year average.
- Prices of rice (both imported and domestic) increased as a reaction to a potential below average rice harvest. The most affected communities are those located in urban areas and some eastern parts of the country where the population rely heavily on markets to access their food.

2 Potential impact

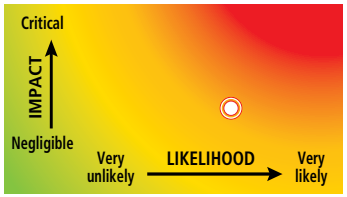
- Northern and eastern Madagascar, including some main producing regions such as Alaotra Mangoro, Boeny and Sofia regions are expected to receive below average rainfall from February to May 2017, which may further impact the main rice harvest which takes place in June and July.
- In addition to the food insecurity in southern Madagascar, where many communities are still recovering from the three consecutive years of drought, some localized areas in eastern Madagascar are likely to face food access difficulties and experience Stress (IPC 2) conditions due to the below-average rice crop production.

Seasonality: [April – June]

Harvesting

Dry

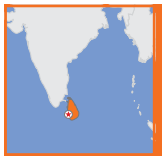
Risk: On watch



3 Recommended early actions

The following initiatives should be considered for the period of April – June 2017:

- engage communities through cash-for-work activities to rehabilitate rural assets and infrastructures destroyed by Cyclone Enawo in Antalaha, Sambava, Maroantsetra, Brickaville, Farafangana and Vangaidrano;
- distribution of seeds and promotion of vegetable crops to smallholders in order to preserve the deterioration of food and nutritional status; and
- provide trainings in post-harvest techniques and development of storage infrastructures.



SRI LANKA

Drought

1 Risk overview

- Prolonged dry weather conditions in 2016 and early 2017 have negatively impacted two consecutive agricultural seasons – the 2016 minor Yala and 2017 Maha cropping seasons. Over 1 million people in 17 out of the 25 districts have also been affected. As of March 2017, around 979 000 people were estimated to be food insecure.
- The recently harvested 2017 main Maha paddy crop is estimated to have decreased by around 50 percent due to the drought. A joint assessment conducted by the Government and humanitarian partners highlighted that only 10 percent of farmers produced enough paddy seeds in affected areas to replant in the following Yala season, while generally 80 percent were able to do so in normal years.
- Although the price of rice, the main staple of the country, has decreased in March thanks to the start of the 2017 Maha season and increased imports, it is still 20 percent above their year earlier levels. This continues to stress the food security situation, especially of the vulnerable rural population.
- The income of farmers has been heavily impacted as drought has also severely affected other crops, livestock rearing and aquaculture activities.

2 Potential impact

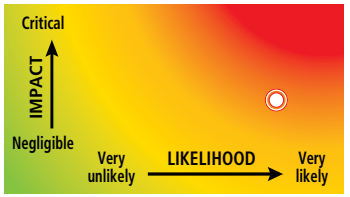
- Planting of the 2017 Yala season is expected to start in April. Current low water levels in the main reservoirs, and tanks and limited availabilities of seeds may negatively affect the Yala crop. While certain international forecasts indicate below-average rainfall, the Sri Lanka Department of Meteorology indicated equal chances for either below, normal or above-average rainfall in the next months.
- A third consecutive poor season could further impact livelihoods and food security conditions of Sri Lankan farmers, as well as seed availability for the next main Maha season scheduled to start in late 2017. Prolonged drought would also further jeopardize the livestock and inland fisheries sector.

Seasonality: [April – June]

Planting/Growing

Rainy

Risk: On watch



3 Recommended early actions

In order to support cropping activities for the starting Yala season, for which planting will continue up until the end of May/early June, and to avoid further deterioration in late 2017, recommended initiatives are:

- support vulnerable farmers in need of seeds for the ongoing Yala season to identify good quality seed suppliers;
- support farmers heavily affected by the drought through provision of agricultural inputs and, when feasible, access to agricultural loans and micro-credit;
- promote home gardening cultivation of stress tolerant crops and tubers and support crop diversification among farmers (maize, cowpea, peanuts, soybean, green gram, black gram, millet, etc.);
- support high indebted farming communities through cash-for-work activities focusing on the rehabilitation of key infrastructure (such as irrigation canals and water tanks) and community assets;
- promote climate smart agriculture techniques, particularly micro-irrigation systems and improved water management approaches; and
- support inland fisheries activities through fingerlings production and stocking in seasonal tanks, where water availability allows.

Sources of information and references

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

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

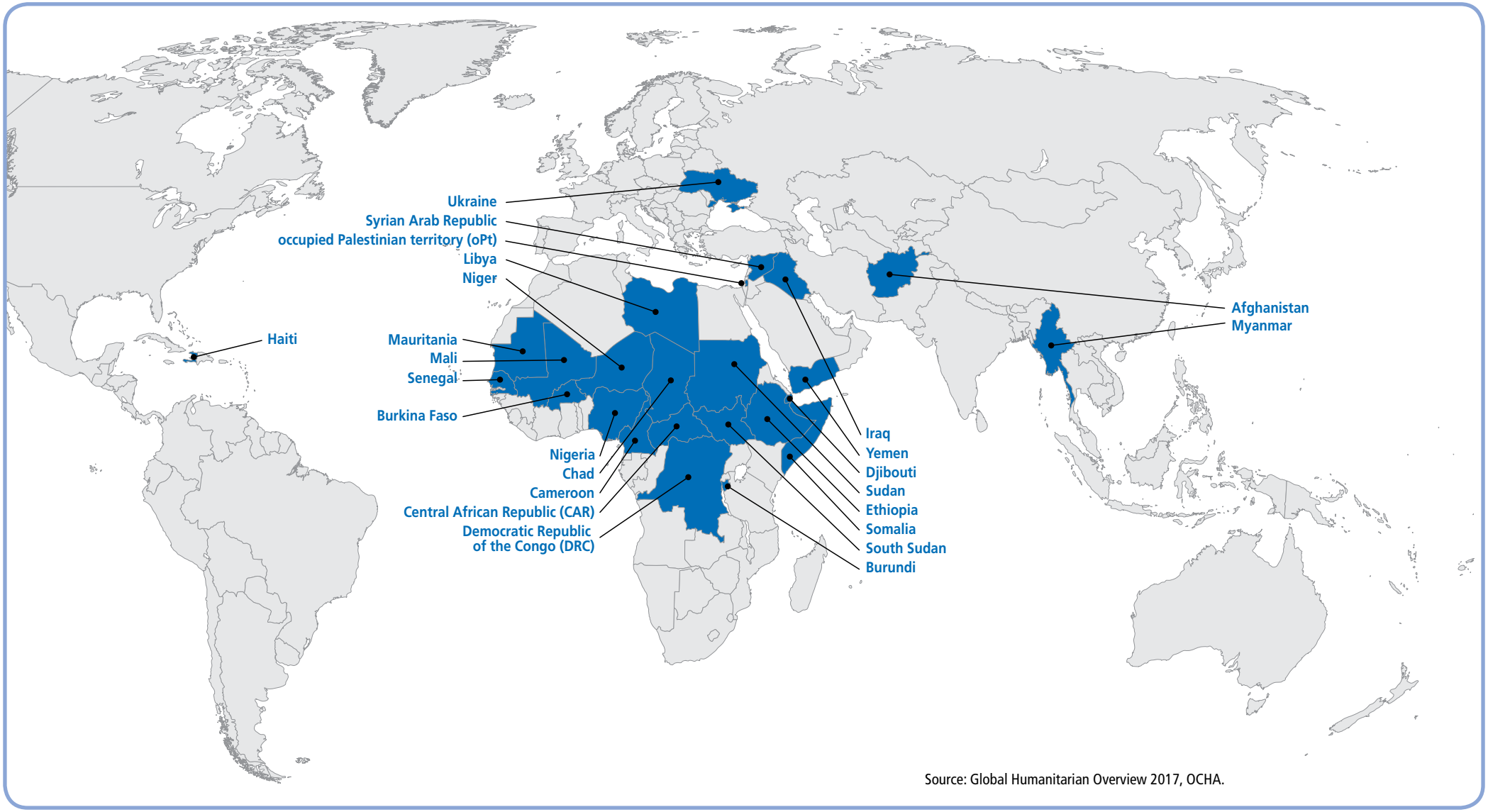
Additional information and data presented in the report are consolidated from the following sources:

- **FAO sources**
  - Situation reports and publications by the Emergency and Rehabilitation Division (http://www.fao.org/emergencies/en)
  - Resilience index measurement and analysis reports (http://www.fao.org/ resilience/background/tools/rima/it)
  - Desert locust bulletins and alerts issued by the Desert Locust Information Service (http://www.fao.org/ag/locusts/en/info/info/index.html)
- **External sources**
  - Reports and bulletins by the United Nation agencies, in particular the Office for the Coordination of Humanitarian Affairs (http://www. unocha.org) and the World Food Programme's Vulnerability Analysis and Mapping Unit (http://vam.wfp.org).
  - INFORM (http://www.inform-index.org)
  - Famine Early Warning Systems Network (http://www.fews.net)
  - International Research Institute for Climate and Society (http://iri.columbia.edu)

List of acronyms

CH	Cadre Harmonisé
ENSO	El Niño Southern Oscillation
EWEA	Early Warning - Early Action
FAO	Food and Agriculture Organization of the United Nations
FCC-EMPRES	Food Chain Crisis - Emergency Prevention System
FSNAU	Food Security and Nutrition Analysis Unit - Somalia
GAM	Global acute malnutrition
GIEWS	Global Information and Early Warning System
HPAI	Highly pathogenic avian influenza
IDP	Internally displaced person
INFORM	Index for Risk Management
IOM	International Organisation for Migration
IPC	Integrated Food Security Phase Classification
OCHA	Office for the Coordination of Humanitarian Affairs
SAM	Severe acute malnutrition
UNHCR	Office of the United Nations High Commissioner for Refugees

GLOBAL MAP OF COUNTRIES WITH HUMANITARIAN RESPONSE PLANS OR EMERGENCY PLANS



Source: Global Humanitarian Overview 2017, OCHA.

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