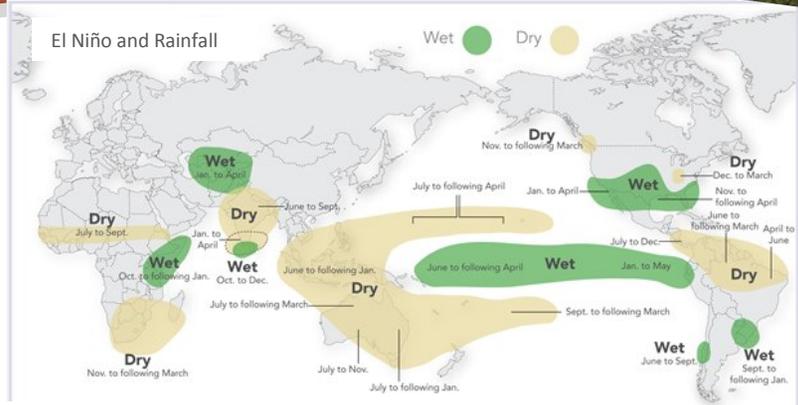
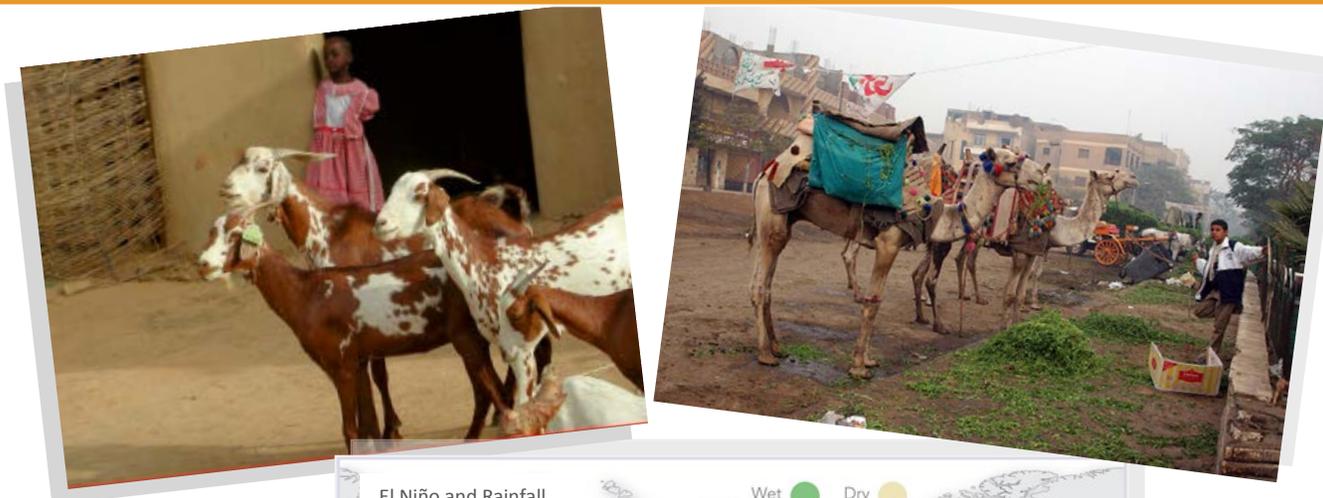




Quarterly Early Warning Bulletin for Food and Agriculture



Source: International Research Institute for Climate and Society

Alerts on threats to the food chain and food security
in countries and regions

The Quarterly Early Warning Bulletin for Food and Agriculture integrates information on food security and threats to the food chain for the three months ahead. It is a product of collaboration between the Emergency Prevention System (EMPRES) for transboundary animal and plant pests and diseases and food safety threats, the Global Information and Early Warning System (GIEWS), and the Intelligence and Coordination Unit of the Food Chain Crisis Management Framework (FCC). Data is provided by GIEWS and EMPRES.

Highlights

Threats to the food chain¹ and food security:

Animal and aquatic diseases:

- With the upcoming winter, the forecast for **Avian Influenza** is as follows:
 - In West Africa, the risk of further spread of Avian Influenza (H5N1 Highly Pathogenic Avian Influenza) to Burkina Faso, Côte d'Ivoire, Ghana, Niger and Nigeria in poultry is persisting. To date no reported cases of human samples tested.
 - In Southeast Asia and China, a high risk of occurrence of Avian Influenza (H5N1, H7N9, H5N2, H5N3, H5N6, and H5N8) outbreaks is expected with potential spread within endemic countries and to free areas.
- The risk of re-occurrence and spread of a vector borne disease - **Rift Valley fever (RVF)** - is amplified in Eastern Africa with El Niño conditions. Strong persistent El Niño conditions are associated with periods of widespread and prolonged heavy rainfall creating ideal environmental and ecological conditions for the emergence of RVF vectors.
- The occurrence of **Lumpy skin disease (LSD)** in Greece and the Russian Federation highlights the potential for further spread to other countries in Central Asia and Europe.
- No confirmed cases of **Ebola virus disease (EVD)** were reported in the week to 4 October. This is the first time that a complete epidemiological week has elapsed with zero confirmed cases since March 2014. Liberia was declared Ebola-free by World Health Organization (WHO) on 3 September 2015.
- A risk of spread of the **Middle East Respiratory Syndrome -coronavirus (MERS-CoV)** is associated to the recent Hajj pilgrimage in Saudi Arabia and the re-emergence of the disease in Jordan after a couple of years without cases.

Plant pests and diseases:

- There is a low to moderate risk of **Desert Locusts** forming small groups in the northern Sahel of Mauritania, Mali, Niger, Chad and Sudan. As vegetation dries out, the locusts will shift to northwest Mauritania, southern Algeria and the Red Sea coast of Sudan.

¹ Transboundary threats within the context of this bulletin are transboundary animal and plant pests and diseases, including aquatic and forests, and food safety threats.

El Niño phenomenon:

- Strong **El Niño** predicted to persist into early 2016. El Niño-related dry weather patterns have already adversely impacted crop production in parts of Asia, [Central America](#) and the Caribbean. The expected prevalence and continuation of El Niño-associated weather patterns into 2016 have raised alarms in many parts of the world where the cropping season has started or is about to start, including parts of Asia and Southern Africa. In East Africa, El Niño events are likely to be associated with above-normal rainfall and flooding. Floods are expected with potential disruption of crop production and infrastructure as well as animal disease outbreaks (Rift Valley Fever).

Regional issues

Africa

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- **Ebola virus disease (EVD)** case incidence in Western Africa has remained below 10 cases (Guinea and Sierra Leone) per week since end of July this year. Liberia was declared Ebola-free by WHO on 3 September 2015. Improvements to case investigation and contact tracing, rapid isolation and treatment, and effective engagement with affected communities have all played a role in reducing case incidence. The risk of spread, regionally and globally, persists until all the countries in West Africa are declared Ebola-free.
- In West Africa, risk of **Avian Influenza (H5N1 HPAI)** further spread to Burkina Faso, Côte d'Ivoire, Ghana, Niger and Nigeria in poultry persists.
- In Southern Africa, **Foot-and-mouth disease (FMD)** outbreaks continue to be reported in cattle. FMD is also often associated with infection in wild animals (e.g. Zimbabwe and Mozambique). Severe drought in Namibia this year may have increased regular movement of cattle from Namibia to Angola to graze which increases the risk of spread of the disease.
- In Southern Africa, in Malawi, Mozambique, South Africa, and Zimbabwe, eucalyptus forests are at high risk of **Red gum lerp psyllid insect** outbreak. In addition, in Zimbabwe, the eucalyptus is under threat from blue gum chalcid and bronze bug.
- In East Africa, strong persistent **El Niño** conditions are associated with periods of widespread and prolonged heavy rainfall that create ideal environmental and ecological conditions for the emergence of vector-borne diseases such as **Rift Valley Fever (RVF)**. For the period May 2015 to July 2015, the RVF persistence model identified areas in South Sudan and eastern Ethiopia, and isolated parts of central Somalia where ecological conditions would support the emergence of RVF vectors (see <http://www.ars.usda.gov/Business/docs.htm?docid=23464>). Enhanced surveillance is advised in these areas particularly in the two months October and November 2015. However, because above normal rains may also occur in the rest of the Eastern African region during the coming months, countries should remain vigilant about RVF.
- Persistent and disruptive conflicts in parts of Central, East and West Africa continue to devastate the agricultural sector and acutely impact food security.

Near East & North Africa

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In the Near East:

- **Middle East Respiratory Syndrome-coronavirus (MERS-CoV)** cases in humans, with unexplained potential continued introduction from an animal source; camels identified as potential source of infection but ways of virus transmission to humans remain unclear. From 01 April to 10 September 2015, a total of 255 cases and 99 deaths in Saudi Arabia, six cases and one death in the United Arab Emirates, 11 cases and five deaths in Jordan, two cases in Qatar, one in Oman, and one in Iran were reported.
- Risk of continued spread of **Lumpy skin disease (LSD)** in the region, impacting livelihoods and food security.

- Risk of spread of the shrimp disease **Acute hepatopancreatic necrosis disease (AHPND)**, also known as Early Mortality Syndrome (EMS) in shrimp species *Penaeus monodon* and *Penaeus vannamei* to Iran and Iraq from live animals (e.g. live polychaetes, clams, oysters, etc.) used as feeds for broodstock.
- In the Caspian forest of Iran, **dieback** of *Buxus hyrcana* trees (IUCN threatened species) caused by Boxwood Blight continues to be reported, and the spread of the disease is also reported in neighboring countries such as Azerbaijan and Georgia.
- A crop production recovery is foreseen from last year's drought-affected production, but conflicts in Iraq, the Syrian Arab Republic and Yemen continue to aggravate the humanitarian crisis.

Asia & the Pacific

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- In China and Southeast Asia, high risk of **Avian Influenza** (H5N1, H7N9, H5N2, H5N3, H5N6, H5N8) outbreaks, with potential spread within endemic countries and to free areas.
- Risk of further spread of the shrimp disease **Acute hepatopancreatic necrosis disease (AHPND)**, also known as Early Mortality Syndrome (EMS), to shrimps *Penaeus monodon* and *Penaeus vannamei* from live animals (e.g. live polychaetes, clams, oysters, etc.) used as feeds for broodstock.
- **El Niño** related dry weather patterns have already adversely impacted crop production and is raising alarm in parts of Asia.

Europe & Central Asia

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- Risk of incursion and further slow and persistent spread of **Lumpy skin disease (LSD)** in Europe and Central Asia after recent outbreaks reported in Turkey, Greece and in the Russian Federation.
- Risk of further spread of additional Transboundary animal diseases (TADs) such as **Foot-and-mouth disease (FMD)**, **Peste des petits ruminants (PPR)**, **African swine fever (ASF)**, **Brucellosis** and **Anthrax** in the region.

Latin America & Caribbean

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- A severe outbreak of **Bark beetles** is affecting about 10 000 ha of conifer forests in Honduras.
- Risk of further spread of the shrimp disease **Acute hepatopancreatic necrosis disease (AHPND)**, also known as Early Mortality Syndrome (EMS), to shrimps (*Penaeus vannamei*) in Central America from live animals (e.g. live polychaetes, clams, oysters, etc.) used as feeds for broodstock.
- **El Niño** related dry weather patterns have already adversely impacted crop production and is raising alarm in Central America and the Caribbean.

AFRICA			
COUNTRY	TYPE OF THREAT	LEVEL OF RISK	DESCRIPTION OF THREAT
Benin	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> ▪ Risk of incursion of Avian Influenza (H5N1 HPAI) from neighboring countries.
Botswana	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> ▪ Risk of further spread of Foot-and-mouth disease to free areas.
Burkina Faso	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> ▪ From February 2015 to May 2015, Avian Influenza (H5N1 HPAI) was reported in poultry in six provinces (26 confirmed outbreaks). Since May, no cases of H5N1 HPAI were reported.
	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> ▪ Massive influx of refugees from Mali puts additional pressure on local food supplies -About 371 000 people are estimated to be in need of food assistance according to the last “Cadre Harmonisé” (IPC) analysis.
Cameroon	<i>Threats to the food chain</i>	High	<ul style="list-style-type: none"> ▪ Risk of incursion of Avian Influenza (H5N1 HPAI) from neighboring countries by informal movement of poultry.
		Moderate	<ul style="list-style-type: none"> ▪ Risk of further spread of Banana Bunchy Top Disease.
	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> ▪ Influx of refugees exacerbating food insecurity of the host communities -The number of refugees from the Central African Republic (CAR) was estimated at 253 000 in late August 2015. About 58 000 refugees from Nigeria mainly entered since May 2013. -In early September 2015, the number of food insecure people was estimated at 919 000. The most affected areas are the North and Far North regions. ▪ Displacement -Insecurity along the borders with Nigeria has led to the internal displacement of 81 700 people.
Central African Republic	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> ▪ Conflict, displacements and constraints in available supplies -In April 2015, about 1.23 million people, out of a total population of 4.6 million, were estimated to be in need of food assistance. -The significant tightening of food supplies has driven up prices.

AFRICA			
COUNTRY	TYPE OF THREAT	LEVEL OF RISK	DESCRIPTION OF THREAT
			-The widespread conflict, which caused large-scale displacements, the loss and the depletion of the households' productive assets and input shortages, is expected to severely affect the current cropping season production.
Chad	Threats to the food chain	Low-Moderate	<ul style="list-style-type: none"> Small groups of Desert Locust may form in the northeast during October or November as vegetation dries out.
	Threats to food security	—	<ul style="list-style-type: none"> Large influx of refugees puts additional pressure on local food supplies <ul style="list-style-type: none"> -Over 800 000 people from the Sudan's Darfur Region, the Central African Republic and northern Nigeria, as well as the return of Chadians, have put added pressure on local food supplies negatively affecting food security. -Over 660 000 people were estimated to be in need of food assistance according to the last "Cadre Harmonisé" (IPC) analysis.
the Congo	Threats to food security	—	<ul style="list-style-type: none"> Influx of refugees straining the already limited resources of host communities <ul style="list-style-type: none"> -As of late August 2015, about 30 000 refugees from the CAR are sheltering in the country.
Côte d'Ivoire	Threats to the food chain	Moderate	<ul style="list-style-type: none"> From April to September 2015, Avian Influenza (H5N1 HPAI) was reported in poultry in three provinces.
the Democratic Republic of the Congo	Threats to the food chain	Low-Moderate	<ul style="list-style-type: none"> Epizootic ulcerative syndrome on fish Barehead Goby is confirmed. Risk of spread to other African water bodies from one lake or river system to another endangering susceptible fish species. Factors include heavy rainfall and flooding poor biosecurity, including movement of infected fish, as well as natural spread by fish and birds.
	Threats to food security	—	<ul style="list-style-type: none"> Conflict and displacements in eastern provinces <ul style="list-style-type: none"> -As of June 2015, the total number of Internally Displaced Persons was estimated at 1.5 million. -An estimated 6.5 million people are in need of urgent humanitarian assistance (June 2015). Influx of refugees straining on already limited resources of host communities <ul style="list-style-type: none"> -As of late August, refugees from the CAR, mainly hosted in the northern Equateur Province, were estimated at about 97 000.

AFRICA			
COUNTRY	TYPE OF THREAT	LEVEL OF RISK	DESCRIPTION OF THREAT
Djibouti	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> ▪ Inadequate pasture availability due to consecutive unfavourable rainy seasons -About 120 000 people are severely food insecure, mainly in pastoral southeastern areas and in the Obock Region.
Eritrea	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> ▪ Risk of wheat stem rust outbreaks (and yellow rust in certain parts).
	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> ▪ Vulnerability to food insecurity due to economic constraints.
Ethiopia	<i>Threats to the food chain</i>	High	<ul style="list-style-type: none"> ▪ Strong persistent El Niño conditions are associated with periods of widespread and prolonged heavy rainfall in East Africa that create ideal environmental and ecological conditions for the emergence of Rift Valley Fever vectors. For the period May 2015 to July 2015, the RVF persistence model developed by USDA/NASA identified areas in eastern Ethiopia where ecological conditions would support the emergence of RVF vectors.
		Moderate	<ul style="list-style-type: none"> ▪ Risk of further spread of Foot-and-mouth disease in a number of districts (Gidami, Gawo Kebe, Dale Wabera and Dale Sedi). Livestock is not regularly vaccinated against FMD due to lack of FMD vaccines.
		Moderate-High	<ul style="list-style-type: none"> ▪ Risk of wheat stem rust outbreaks (and yellow rust in certain parts).
	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> ▪ Reduced localized crop production -About 4.5 million people are in need of humanitarian assistance, mainly in Oromia, Somali and Amhara regions. -Poor and erratically-distributed rains have lowered crop production prospects for the 2015 minor “belg” season crops.
Gabon	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> ▪ Risk of further spread of Banana Bunchy Top Disease.
Gambia	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> ▪ Below-average crop production in 2014 -Cereal production is estimated to have decreased by 28 percent in 2014 compared to the average.
Ghana	<i>Threats to the food</i>	High	<ul style="list-style-type: none"> ▪ Risk of further spread of Avian Influenza (H5N1 HPAI). Since April 2015, H5N1

AFRICA			
COUNTRY	TYPE OF THREAT	LEVEL OF RISK	DESCRIPTION OF THREAT
	<i>chain</i>		HPAI was reported in poultry in three provinces (18 confirmed outbreaks). Last confirmed case was in July 2015.
Guinea	<i>Threats to the food chain and food security</i>	Moderate	<ul style="list-style-type: none"> ▪ Ebola Virus Disease (EVD) situation and impact: <ul style="list-style-type: none"> -No new confirmed cases were reported from Guinea during the week ending 4 October. The Ebola <i>ça suffit!</i> ring vaccination trial is continuing in Guinea. -EVD has had a serious negative impact on economic activities and livelihoods, gravely affecting the food security situation of large numbers of people.
Guinea-Bissau	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> ▪ Below-average crop production in 2014 <ul style="list-style-type: none"> -Cereal production was estimated to have decreased by 34 percent in 2014 compared to the average.
Kenya	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> ▪ Risk of wheat stem rust outbreaks.
		High	<ul style="list-style-type: none"> ▪ Risk of armyworm outbreak.
		Moderate	<ul style="list-style-type: none"> ▪ Risk of attacks of <i>Quelea</i> birds on irrigated cereal crops.
	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> ▪ Reduced second season crop production and worsening pasture conditions <ul style="list-style-type: none"> -About 1.1 million people are severely food insecure, mainly located in coastal and north-eastern counties. ▪ Late and erratic rains affected “<i>long-rains</i>” cereal crop production in southern and eastern parts of the country.
Lesotho	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> ▪ Reduced crop production <ul style="list-style-type: none"> -Reflecting the slightly reduced 2015 maize production, an estimated 463 936 people require assistance, 3 percent up from last year.
Liberia	<i>Threats to the food chain and food security</i>	Low	<p>Ebola Virus Disease (EVD) situation and impact:</p> <ul style="list-style-type: none"> ▪ Liberia was declared free from EVD by WHO on 9 May 2015 although risk of spread of the virus is still considerable. EVD outbreak has disrupted markets, farming activities and livelihoods, seriously affecting the food security situation of large numbers of people. ▪ EVD has had a serious negative impact on economic activities and livelihoods, gravely affecting the food security situation of large numbers of people.

AFRICA			
COUNTRY	TYPE OF THREAT	LEVEL OF RISK	DESCRIPTION OF THREAT
			<ul style="list-style-type: none"> About 722 000 people were estimated to be in need of food assistance according to the last “Cadre Harmonisé” (IPC) analysis.
Madagascar	<i>Threats to the food chain</i>	High	<ul style="list-style-type: none"> In July 2015, all field observations indicated the decline of the Malagasy Migratory Locust plague, thus confirming the success of the second control campaign (September 2014-August 2015) of the Three-year Programme (2013-2016). Ground survey and control activities of the third and last campaign started in late August; they will be strengthened by aerial operations from mid-October.
	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> Flooding and reduced crop production -Cyclones and flood damage in early 2015 had a negative impact on livelihoods and crop production, particularly affecting southern regions where the rate of food insecurity is acute. -As a result of the erratic weather conditions, the 2015 rice harvest is estimated to have slightly decreased.
Malawi	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> Risk of armyworm outbreak. Risk of spread of Red gum lerp psyllid in Eucalyptus forests.
	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> Reduced crop production and flooding -Unfavourable weather, including a prolonged dry period and flooding caused a 27 percent decrease in maize production in 2015 resulting in a significant increase in people requiring assistance.
Mali	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> Small groups of Desert Locust may form in the north during October or November as vegetation dries out.
	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> Droughts, floods, population displacements and insecurity in northern areas -Over 410 000 people were estimated to be in Phase 3: “Crisis” and above according to the last “Cadre Harmonisé” (IPC) analysis.

AFRICA			
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Mozambique	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> A further Foot-and-mouth disease outbreak was reported to have started on the 17 June 2015 in Gaza, Mozambique, due to illegal movement of animals or to contact with infected animal(s) at grazing/watering or contact with wild animal species. The continuing drought in the region is obliging a high number of animals to water at few sources thus increasing the movement of susceptible animals and possible contact with wildlife species with the risk of further spread of the disease in the country.
		Moderate	<ul style="list-style-type: none"> Risk of armyworm outbreak. Risk of spread of Red gum lerp psyllid to Eucalyptus forests
		Low-Moderate	<ul style="list-style-type: none"> Risk of spread to the country of the shrimp disease Acute hepatopancreatic necrosis disease, also known as Early Mortality Syndrome (EMS), to shrimps (<i>Penaeus monodon</i>) from infected broodstock, post-larvae and live animals (e.g. live polychaetes, clams, oysters, etc.) used as feeds for broodstock.
	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> Flooding in central provinces and reduced localized crop production
Namibia	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> Risk of Foot-and-mouth disease incursion from neighboring country due to drought and animal movement between borders.
Niger	<i>Threats to the food chain</i>	Low-Moderate	<ul style="list-style-type: none"> Small groups of Desert Locust may form in the north during October or November as vegetation dries out.
	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> Recurrent severe food crisis -About 1.6 million people were estimated to be in Phase 3: “Crisis” and above according to the last “Cadre Harmonisé” (IPC) analysis.
Nigeria	<i>Threats to the food chain</i>	High	<ul style="list-style-type: none"> Risk of further spread of Avian Influenza (H5N1 HPAI) in the country where H5N1 HPAI continues to be reported in poultry in the country. Nigeria has reported H5N1 HPAI in poultry for the first time in December 2014 since 2008. Since 24 December 2014 to 6 October 2015, the number of outbreaks reported is 507. A 1.7 billion poultry are at risk with 138 000 reported mortalities and over 1.6 million depopulated birds.
Rwanda	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> High flow of refugees and their livestock from Burundi with an associated increased risk of occurrence of TADs particularly Foot-and-mouth disease,

AFRICA			
COUNTRY	TYPE OF THREAT	LEVEL OF RISK	DESCRIPTION OF THREAT
			Lumpy skin disease, and <i>Peste des petits ruminants</i> .
Senegal	Threats to food security	—	<ul style="list-style-type: none"> ▪ Below-average crop production in 2014 -Cereal production in 2014 was estimated 20 percent below the average.
Sierra Leone	Threats to the food chain	Moderate	<ul style="list-style-type: none"> ▪ As of 4 October 2015, no confirmed cases of Ebola Virus Disease have been reported for the third consecutive week
Somalia	Threats to the food chain	High	<ul style="list-style-type: none"> ▪ Strong persistent El Niño conditions are associated with periods of widespread and prolonged heavy rainfall in East Africa that create ideal environmental and ecological conditions for the emergence of Rift Valley Fever (RVF) vectors. For the period May 2015 to July 2015, the RVF persistence model developed by USDA/NASA identified isolated parts of central Somalia where ecological conditions would support the emergence of RVF vectors.
		Low	<ul style="list-style-type: none"> ▪ Scattered Desert Locusts may appear on the northwest coast and breed, causing locust numbers to increase slightly.
	Threats to food security	—	<ul style="list-style-type: none"> ▪ Conflict, civil insecurity and reduced localized crop production -About 855 000 people are estimated to be in need of emergency assistance, mainly Internally Displaced Persons and poor households in southern and central regions. ▪ Crop production of the 2015 “gu” season crops in central and southern areas has been affected by floods in Shabelle Region as well as by the early cessation of the rains in May.
South Africa	Threats to the food chain	Moderate	<ul style="list-style-type: none"> ▪ Risk of spread of Red gum lerp psyllid in Eucalyptus forests within the country.
		Low-Moderate	<ul style="list-style-type: none"> ▪ Recurrence of the fish disease Epizootic ulcerative syndrome affecting the fish Barehead Goby (<i>Caffrogobius nudiceps</i>).
South Sudan	Threats to the food chain	Low-Moderate	<ul style="list-style-type: none"> ▪ Risk of spread of Foot-and-mouth disease to the north due to current FMD outbreaks occurring in cattle near the border with Uganda.
		High	<ul style="list-style-type: none"> ▪ Strong persistent El Niño conditions are associated with periods of widespread and prolonged heavy rainfall in East Africa that create ideal environmental and ecological conditions for the emergence of Rift Valley Fever (RVF) vectors. For

AFRICA			
COUNTRY	TYPE OF THREAT	LEVEL OF RISK	DESCRIPTION OF THREAT
			the period May 2015 to July 2015, the RVF persistence model developed by USDA/NASA identified areas in South Sudan where ecological conditions would support the emergence of RVF vectors.
	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> ▪ Conflict, civil insecurity and reduced crop production in conflict-affected areas -Over 2.2 million people have fled their homes since the conflict erupted at the end of 2013. -About 3.9 million people are severely food insecure, mainly in conflict-affected states of Jonglei, Unity and Upper Nile.
Togo	<i>Threats to the food chain</i>	High	<ul style="list-style-type: none"> ▪ Risk of incursion of Avian Influenza (H5N1 HPAI) from neighbouring countries affected by H5N1 HPAI.
Uganda	<i>Threats to the food chain</i>	Low-Moderate	<ul style="list-style-type: none"> ▪ Risk of spread of Foot-and-mouth disease through common grazing areas at borders used by livestock pastoralists in the Karamoja Region with significant socioeconomic impact.
	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> ▪ Below average crop production -About 295 000 people in Karamoja Region were estimated to be severely food insecure as food stocks were depleted in February, one month earlier than usual.
the United Republic of Tanzania	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> ▪ Risk of wheat stem rust spread.
			<ul style="list-style-type: none"> ▪ Risk of armyworm outbreak.
			<ul style="list-style-type: none"> ▪ Significant adult populations of Red Locust could form swarms which may migrate to cropping areas.
Zambia	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> ▪ Risk of armyworm outbreak.
		Low-Moderate	<ul style="list-style-type: none"> ▪ Continuous outbreak of the fish disease Epizootic ulcerative syndrome. Risk of spread to other African water bodies from one lake or river system to another endangering susceptible fish species. Factors include heavy rainfall and flooding poor biosecurity, including movement of infected fish, as well as natural spread by fish and birds.

AFRICA			
COUNTRY	TYPE OF THREAT	LEVEL OF RISK	DESCRIPTION OF THREAT
Zimbabwe	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> ▪ Risk of further spread of Foot-and-mouth disease to free areas.
			<ul style="list-style-type: none"> ▪ Risk of further spread of African swine fever in the country. In July 2015, two African swine fever outbreaks were reported in Mashonaland Central Region. Last previous occurrence of the disease was in 1992.
			<ul style="list-style-type: none"> ▪ Risk of Quelea birds attacks on winter wheat.
	<i>Threats to food security</i>	High	<ul style="list-style-type: none"> ▪ The risk of establishment of three major insect pests (Bronze bug, Red gum lerp psyllid and Blue gum chalcid) in neighbouring countries is high due to the occurrence of outbreaks in Eucalyptus forest plantations of these three major insect pests. Pest management efforts using biological control are in progress.
<ul style="list-style-type: none"> ▪ Sharply reduced 2015 maize production -Maize production is estimated at 742 000 tonnes, 39 percent below the five-year average. 			

NEAR EAST & NORTH AFRICA			
COUNTRY	TYPE OF THREAT	LEVEL OF RISK	DESCRIPTION OF THREAT
Algeria	<i>Threats to the food chain</i>	Low-Moderate	<ul style="list-style-type: none"> ▪ Low-moderate numbers of Locusts may appear in central and southern areas from northern Mali.
Egypt	<i>Threats to the food chain</i>	High	<ul style="list-style-type: none"> ▪ Continuous outbreaks of H5N1 HPAI in poultry and cases in humans.
		Moderate-High	<ul style="list-style-type: none"> ▪ Risk of further spread for H9N2 LPAI in humans. Three case of H9N2 LPAI in humans recently occurred in Egypt.
		High	<ul style="list-style-type: none"> ▪ Risk of further spread of Lumpy skin disease in cattle.
Iran	<i>Threats to the food chain</i>	High	<ul style="list-style-type: none"> ▪ Dieback of <i>Buxus hyrcana</i> trees caused by Boxwood Blight continues in the Caspian forest of Iran.
			<ul style="list-style-type: none"> ▪ Decline of oak forest in Zagros region caused by biotic and abiotic stresses is continuing. The decline of oak has a negative impact on the livelihood of nomad people and water shed management. Operations to minimize the biotic and

NEAR EAST & NORTH AFRICA			
COUNTRY	TYPE OF THREAT	LEVEL OF RISK	DESCRIPTION OF THREAT
			abiotic stresses are in progress.
		Low-Moderate	<ul style="list-style-type: none"> Risk of spread of the shrimp disease Acute hepatopancreatic necrosis disease, also known as Early Mortality Syndrome, to shrimps (<i>Penaeus monodon</i>) from infected brood-stock, post-larvae and live animals (e.g. live polychaetes, clams, oysters, etc.) used as feeds for broodstock.
		Low	<ul style="list-style-type: none"> Middle East Respiratory Syndrome-coronavirus cases in humans continue to be reported.
Iraq	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> Risk of spread of Acute hepatopancreatic necrosis disease, also known as Early Mortality Syndrome, to shrimps (<i>Penaeus monodon</i>) from infected brood-stock, post-larvae and live animals (e.g. live polychaetes, clams, oysters, etc.) used as feeds for broodstock.
	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> Escalation of the conflict and large internal displacement <ul style="list-style-type: none"> -Over 2 million people have been displaced since January 2014. -1.8 million beneficiaries (Internally Displaced Persons, non-displaced food insecure in conflict areas and food insecure host families) are receiving food assistance. -Internal trade restrictions and reduced access to stocks held in the areas under non-governmental control.
Jordan	<i>Threats to the food chain</i>	High	<ul style="list-style-type: none"> Risk of spread of Lumpy skin disease.
		Moderate	<ul style="list-style-type: none"> Middle East Respiratory Syndrome-coronavirus cases in humans have been reported in September 2015 after it was previously reported in June 2014 in the country.
Lebanon	<i>Threats to the food chain</i>	High	<ul style="list-style-type: none"> Risk of spread of Lumpy skin disease.
			<ul style="list-style-type: none"> Continuous loss of pine nut production due to abiotic and biotic stresses. Operations are in progress to minimise these stresses.
Libya	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> Further spread of Avian Influenza (H5N1 HPAI) in poultry with risk of new incursions due to informal movement and trade of poultry products from Egypt at borders.

NEAR EAST & NORTH AFRICA			
COUNTRY	TYPE OF THREAT	LEVEL OF RISK	DESCRIPTION OF THREAT
		High	<ul style="list-style-type: none"> Risk of further spread of Foot-and-mouth disease type O.
Mauritania	<i>Threats to the food chain</i>	Low-Moderate	<ul style="list-style-type: none"> As vegetation dries out, small groups of Desert Locust may form during October and November and move to the northwest.
	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> <i>Influx of refugees puts additional pressure on local food supplies and high food prices constrain access</i> -More than 52 000 Malian refugees remain in southeastern Mauritania as of June 2015.
Oman	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> Risk of reoccurrence of Middle East Respiratory Syndrome-coronavirus cases in humans.
Qatar	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> Risk of reoccurrence of Middle East Respiratory Syndrome-coronavirus cases in humans.
Saudi Arabia	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> Middle East Respiratory Syndrome-coronavirus cases in humans continue to be reported.
the Syrian Arab Republic	<i>Threats to the food chain</i>	High	<ul style="list-style-type: none"> Increased risk of spread of TADs (Rabies, Lumpy skin disease, Foot-and-mouth disease, Brucellosis and Newcastle) due to high internal flow of refugees and their livestock.
	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> <i>Worsening civil conflict</i> -Agricultural production significantly affected by conflict. -An estimated 12.2 million people are in need of humanitarian assistance. -Although international food assistance is being provided, Syrian refugees are putting strain on other host communities in neighbouring countries. -2.1 million people receiving food assistance in neighbouring countries and 4.5 million within the country.
the Sudan	<i>Threats to the food chain</i>	Low-Moderate	<ul style="list-style-type: none"> As vegetation dries out, small groups of Desert Locust may form in the north during October or November and move to the Red Sea coast.
		Moderate	<ul style="list-style-type: none"> Risk of wheat stem rust outbreaks.

NEAR EAST & NORTH AFRICA			
COUNTRY	TYPE OF THREAT	LEVEL OF RISK	DESCRIPTION OF THREAT
	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> ▪ Conflict and civil insecurity -The number of people estimated to be in need of humanitarian assistance, mainly Internally Displaced Persons in conflict affected areas, is estimated at 3.3 million.
The West Bank and Gaza Strip	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> ▪ Risk of further spread of Avian Influenza (H5N1 HPAI) in the country as H5N1 HPAI has spread in the area in commercial poultry from January to April 2015.
the United Arab Emirates	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> ▪ Risk of reoccurrence of Middle East Respiratory Syndrome-coronavirus cases in humans.
Yemen	<i>Threats to the food chain</i>	Low	<ul style="list-style-type: none"> ▪ Small-scale breeding and limited population increase in Desert Locust on the Red Sea and Gulf of Aden coasts.
	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> ▪ Conflict, poverty, and high food and fuel prices -Of the 12.9 million food insecure people across the country, about 6.1 million are in “Humanitarian Emergency” (Phase: 4), and 6.8 million are in “Crisis” (Phase: 3), according to the Integrated Food Security Phase Classification (IPC), all affected by the ongoing armed conflict. -The level of food insecurity increased by 21 percent compared to the previous year.

ASIA & THE PACIFIC			
COUNTRY	TYPE OF THREAT	LEVEL OF RISK	DESCRIPTION OF THREAT
Afghanistan	<i>Threats to the food chain</i>	Moderate-High	<ul style="list-style-type: none"> ▪ No further development for the Moroccan and Italian Locusts expected in 2015. The 2015 anti-locust campaign came to an end in July-August 2015 in all 10 Caucasian and Central Asian (CCA) countries. Egg-bed surveys will continue until November 2015 to do forecast for the 2016 campaign.
	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> ▪ Continuing conflict and population displacement -2.1 million people are classified as very severely food insecure

ASIA & THE PACIFIC			
COUNTRY	TYPE OF THREAT	LEVEL OF RISK	DESCRIPTION OF THREAT
			-Over 700 000 people are internally displaced, mostly in Helmand Province.
Cambodia	<i>Threats to the food chain</i>	High	<ul style="list-style-type: none"> Risk of further spread of porcine reproductive and respiratory syndrome since outbreaks S were recently reported in three provinces (September 2015).
China	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> Risk of increase of occurrence and spread of Avian Influenza (H5N1 HPAI) outbreaks in the early months of the year. Several Avian Influenza subtypes are found in China. Between April and September 2015, 20 additional human cases of H7N9 LPAI were reported.
Democratic People's Republic of Korea	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> Dry weather conditions sharply reduced 2015 early crops and negatively impacted main season food crops -Poor rains sharply reduced the 2015 potato, wheat and barley crops, harvested earlier in the year, and adversely affected prospects of the main food crops, currently harvested. -With drought conditions and floods this season, cereal production is expected to be reduced, worsening the already fragile food security situation.
India	<i>Threats to the food chain</i>	Low-Moderate	<ul style="list-style-type: none"> Risk of further spread of the shrimp disease Enterocytozoon hepatopenaei to shrimps <i>Penaeus monodon</i> through live animals (e.g. live polychaetes, clams, oysters, etc.) used as feeds for broodstock.
			<ul style="list-style-type: none"> Risk of spread to the country of the shrimp disease Acute hepatopancreatic necrosis disease, also known as Early Mortality Syndrome, to shrimps (<i>Penaeus monodon</i> and <i>Penaeus vannamei</i>) from infected broodstock, post-larvae and live animals (e.g. live polychaetes, clams, oysters, etc.) used as feeds for broodstock.
Indonesia	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> Risk of Avian Influenza (H5N1 HPAI) and potential impact on livelihoods and food security.
		Low-Moderate	<ul style="list-style-type: none"> Risk of spread to the country of the shrimp disease Enterocytozoon hepatopenaei to shrimps <i>Penaeus vannamei</i> through live animals (e.g. live polychaetes, clams, oysters, etc.) used as feeds for broodstock.

ASIA & THE PACIFIC			
COUNTRY	TYPE OF THREAT	LEVEL OF RISK	DESCRIPTION OF THREAT
Lao People's Democratic Republic	<i>Threats to the food chain</i>	High	<ul style="list-style-type: none"> Outbreak of Yellow-Spined Bamboo Locust in progress in the north and is expected to carry over into 2016.
Nepal	<i>Threats to the food chain</i>	High	<ul style="list-style-type: none"> Risk of occurrence and spread of several TADs due to the precarious animal health situation in the aftermath of the earthquake (rabies, Newcastle disease, Highly Pathogenic Avian Influenza, Anthrax, <i>Peste des petits ruminants</i>, Foot-and-mouth disease).
the Republic of Korea	<i>Threats to the food chain</i>	Low	<ul style="list-style-type: none"> Further human cases of Middle East Respiratory Syndrome-coronavirus infection were reported in the country with the last laboratory confirmed on 4 July 2015. Between May and July 2015, 185 cases and 36 deaths were reported. Secondary transmission of MERS-CoV was also reported with risk of spread to neighboring countries.
Sri Lanka	<i>Threats to the food chain</i>	Low-Moderate	<ul style="list-style-type: none"> Risk of spread of the shrimp disease Acute hepatopancreatic necrosis disease, also known as Early Mortality Syndrome, to shrimps (<i>Penaeus monodon</i>) from infected broodstock, post-larvae and live animals (e.g. live polychaetes, clams, oysters, etc.) used as feeds for broodstock.
Viet Nam	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> Risk of introduction of a new strain of Avian Influenza (H7N9 LPAI) from a neighboring country, causing risk to human health and economic headships to the people.

EUROPE & CENTRAL ASIA			
COUNTRY	TYPE OF THREAT	LEVEL OF RISK	DESCRIPTION OF THREAT
Albania	<i>Threats to the food chain</i>	High	<ul style="list-style-type: none"> About 80 000 ha of Albania's black pine forests is affected by pine processionary moth. Various levels of infestation are found in the north and the south of the country. Severe outbreaks are likely in most of the areas in 2016.

EUROPE & CENTRAL ASIA			
COUNTRY	TYPE OF THREAT	LEVEL OF RISK	DESCRIPTION OF THREAT
Armenia	<i>Threats to the food chain</i>	High	<ul style="list-style-type: none"> ▪ Risk of Lumpy skin disease incursion from neighboring countries.
		Low	<ul style="list-style-type: none"> ▪ No further development for the Italian Locust expected in 2015. The 2015 anti-locust campaign came to an end in July-August 2015 in all ten Caucasian and Central Asian countries. Egg-bed surveys will continue until November to forecast for the 2016 campaign.
Azerbaijan	<i>Threats to the food chain</i>	High	<ul style="list-style-type: none"> ▪ Risk of further spread of Lumpy skin disease.
		Moderate	<ul style="list-style-type: none"> ▪ No further development for the Italian, Migratory and Moroccan Locusts expected in 2015. The 2015 anti-locust campaign came to an end in July-August 2015 in all ten Caucasian and Central Asian countries. Egg-bed surveys will continue until November 2015 to forecast for the 2016 campaign.
		High	<ul style="list-style-type: none"> ▪ Dieback of <i>Buxus hyrcana</i> trees (IUCN threatened species) caused by Boxwood Blight continues to be reported.
Estonia	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> ▪ African swine fever continues to be reported in the country.
Georgia	<i>Threats to the food chain</i>	High	<ul style="list-style-type: none"> ▪ Risk of Lumpy skin disease incursion from neighboring countries. ▪ No further development for the Italian and Moroccan Locusts expected in 2015. The 2015 anti-locust campaign came to an end in July-August 2015 in all ten Caucasian and Central Asian countries. Egg-bed surveys will continue until November 2015 to forecast for the 2016 campaign.
		High	<ul style="list-style-type: none"> ▪ Dieback of <i>Buxus hyrcana</i> trees (IUCN threatened species) caused by Boxwood Blight continues to be reported.
Greece	<i>Threats to the food chain</i>	High	<ul style="list-style-type: none"> ▪ Risk of further spread of Lumpy skin disease outbreaks reported in the Evros region along the border with Turkey in August 2015.
Kazakhstan	<i>Threats to the food chain</i>	High	<ul style="list-style-type: none"> ▪ No further development for the Italian, Migratory and Moroccan Locusts expected in 2015. The 2015 anti-locust campaign came to an end in July-August 2015 in all 10 Caucasian and Central Asian countries. Egg-bed surveys will

EUROPE & CENTRAL ASIA			
COUNTRY	TYPE OF THREAT	LEVEL OF RISK	DESCRIPTION OF THREAT
			continue until November 2015 to forecast for the 2016 campaign.
Kyrgyzstan	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> No further development for the Italian and Moroccan Locusts expected in 2015. The 2015 anti-locust campaign came to an end in July-August 2015 in all ten Caucasian and Central Asian countries. Egg-bed surveys will continue until November 2015 to forecast for the 2016 campaign.
Latvia	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> African swine fever continues to be reported in the country.
Lithuania	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> African swine fever continues to be reported in the country.
the Russian Federation	<i>Threats to the food chain</i>	High	<ul style="list-style-type: none"> Risk of further spread of Lumpy skin disease which was recently reported (September 2015) in the country.
		Moderate	<ul style="list-style-type: none"> African swine fever continues to be reported in the country.
		—	<ul style="list-style-type: none"> No further development for the Italian, Migratory and Moroccan Locusts expected in 2015. The 2015 anti-locust campaign came to an end in July-August 2015 in all ten Caucasian and Central Asian countries. Egg-bed surveys will continue until November 2015 to forecast for the 2016 campaign.
Tajikistan	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> No further development for the Italian and Moroccan Locusts expected in 2015. -The 2015 anti-locust campaign came to an end in July-August 2015 in all ten Caucasian and Central Asian countries. -Egg-bed surveys will continue until November 2015 to forecast for the 2016 campaign.
Turkey	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> Risk of further spread of Lumpy skin disease outbreaks reported in the country in June 2015.
		High	<ul style="list-style-type: none"> Spread of Chestnut gall wasp in Chestnut trees has been reported in Turkey.
Turkmenistan	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> No further development for the Italian and Moroccan Locusts expected in 2015. -The 2015 anti-locust campaign came to an end in July-August 2015 in all ten Caucasian and Central Asian countries.

EUROPE & CENTRAL ASIA			
COUNTRY	TYPE OF THREAT	LEVEL OF RISK	DESCRIPTION OF THREAT
			- Egg-bed surveys will continue until November 2015 to forecast for the 2016 campaign.
Ukraine	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> ▪ African swine fever continues to be reported in the country.
Uzbekistan	<i>Threats to the food chain</i>	Moderate	<ul style="list-style-type: none"> ▪ No further development for the Italian, Migratory and Moroccan Locusts expected in 2015. -The 2015 anti-locust campaign came to an end in July-August 2015 in all ten Caucasian and Central Asian countries. -Egg-bed surveys will continue until November 2015 to forecast for the 2016 campaign.

LATIN AMERICA & CARIBBEAN			
COUNTRY	TYPE OF THREAT	LEVEL OF RISK	DESCRIPTION OF THREAT
Colombia	<i>Threats to the food chain</i>	Low-Moderate	<ul style="list-style-type: none"> ▪ Risk of spread of Acute hepatopancreatic necrosis disease, also known as Early Mortality Syndrome, to shrimps (<i>Penaeus vannamei</i>) from infected broodstock, post-larvae and live animals (e.g., live polychaetes, clams, oysters, etc.) used as feeds for broodstock.
El Salvador	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> ▪ Prolonged and severe dry weather related to El Niño significantly reduced cereal production during the main 2015 first season, ended in September, and may have also reduced sowings during the second season.
Guatemala	<i>Threats to the food chain</i>	Low-Moderate	<ul style="list-style-type: none"> ▪ Risk of spread of Acute hepatopancreatic necrosis disease, also known as Early Mortality Syndrome, to shrimps (<i>Penaeus vannamei</i>) from infected broodstock, post-larvae and live animals (e.g. live polychaetes, clams, oysters, etc.) used as feeds for broodstock.
	<i>Threats to food security</i>	—	<ul style="list-style-type: none"> ▪ Prolonged and severe dry weather related to El Niño significantly reduced

			cereal production during the main 2015 first season, ended in September, and may have also reduced sowings during the second season.
Honduras	Threats to the food chain	High	<ul style="list-style-type: none"> A severe outbreak of bark beetles has affected about 10 000 ha of conifer forests
		Low-Moderate	<ul style="list-style-type: none"> Risk of spread of the shrimp disease Acute hepatopancreatic necrosis disease, also known as Early Mortality Syndrome, to shrimps (<i>Penaeus vannamei</i>) from infected broodstock, post-larvae and live animals (e.g. live polychaetes, clams, oysters, etc.) used as feeds for broodstock.
	Threats to food security	—	<ul style="list-style-type: none"> Prolonged and severe dry weather related to El Niño significantly reduced cereal production during the main 2015 first season, ended in September, and may have also reduced sowings during the second season.
Nicaragua	Threats to the food chain	Low-Moderate	<ul style="list-style-type: none"> Risk of spread of the shrimp disease Acute hepatopancreatic necrosis disease, also known as Early Mortality Syndrome, to shrimps (<i>Penaeus vannamei</i>) from infected broodstock, post-larvae and live animals (e.g., live polychaetes, clams, oysters, etc.) used as feeds for broodstock.
	Threats to food security	—	<ul style="list-style-type: none"> Prolonged and severe dry weather related to El Niño significantly reduced cereal production during the main 2015 first season, ended in September, and may have also reduced sowings during the second season.
Panama	Threats to the food chain	Moderate	<ul style="list-style-type: none"> Risk of further spread of Eastern and Venezuelan Equine Encephalitis in animals with potential human cases due to reports of the diseases in Darien in September 2015.
		Low-Moderate	<ul style="list-style-type: none"> Risk of spread of the shrimp disease Acute hepatopancreatic necrosis disease, also known as Early Mortality Syndrome, to shrimps (<i>Penaeus vannamei</i>) from infected broodstock, post-larvae and live animals (e.g., live polychaetes, clams, oysters, etc.) used as feeds for broodstock.
Peru	Threats to the food chain	Low-Moderate	<ul style="list-style-type: none"> Risk of spread of the shrimp disease Acute hepatopancreatic necrosis disease, also known as Early Mortality Syndrome, to shrimps (<i>Penaeus vannamei</i>) from infected broodstock, post-larvae and live animals (e.g. live polychaetes, clams, oysters, etc.) used as feeds for broodstock.

Information Sources

Desert Locust

FAO Desert Locust Information Service (DLIS)
www.fao.org/ag/locusts

Migratory Locust in Madagascar

- Bulletins of the Locust Watch Unit (available at <http://www.fao.org/emergencies/crisis/madagascar-locust/en/>)
- Locust Situation Updates available at <http://www.fao.org/ag/locusts/en/info/info/index.html>

Locusts (three species) in Caucasus and Central Asia:

- Regional monthly bulletins on locust situations in CCA
- Reports of the annual Technical Workshop on Locusts in CCA
- <http://www.fao.org/ag/locusts-CCA/en/index.html>

Wheat rust disease

- Global wheat rust monitoring system

Transboundary Animal Diseases (TADs)

- Global Animal Disease Information System (EMPRES-i) (<http://empres-i.fao.org/eipws3g/>)
- Global Early Warning System (GLEWS) at FAO
- World Health Organization <http://apps.who.int/ebola/>
- OIE World Animal Health Information Database (WAHID) Interface http://www.oie.int/wahis_2/public/wahid.php/Wahidhome/Home
- Foot-and-Mouth Disease (FMD)
 - FMD Situation Reports available at <http://www.fao.org/ag/againfo/commissions/eufmd/commissions/eufmd-home/fmd-surveillance/situation-reports/en/>
- Ebola virus disease
 - WHO Ebola Situation Report (as of 30 September 2015) available at: <http://apps.who.int/ebola/current-situation/ebola-situation-report-30-september-2015>

Early Mortality Syndrome/Acute hepatopancreatic necrosis disease (EMS/AHPND)

- FAO. 2013. Report of the FAO/MARD Technical Workshop on Early Mortality Syndrome (EMS) or Acute Hepatopancreatic Necrosis Syndrome (AHPNS) of Cultured Shrimp (available at <http://www.fao.org/docrep/018/i3422e/i3422e00.htm>)

ECDC - Communicable disease threats report (CDTR) available at http://ecdc.europa.eu/en/publications/surveillance_reports/Communicable-Disease-Threats-Report/Pages/default.aspx

Threats to Food Security

- FAO. 2015. Crop Prospects and Food Situation, No 3, October 2015 (available at <http://www.fao.org/3/a-I4970E.pdf>)

Seasonal forecast

- El Niño. International Research Institute for Climate and Society (http://iridl.ldeo.columbia.edu/maproom/IFRC/FIC/el_nino_rain.html)
- GIEWS Update. Central America - Drought Update <http://www.fao.org/3/a-I4926E.pdf>

For more information:

Food Chain Crisis Management Framework (FCC)

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E-mail: Mona.Chaya@fao.org

Web: www.fao.org/food-chain-crisis

Global Information and Early Warning System (GIEWS)

E-mail: GIEWS1@fao.org

Web: <http://www.fao.org/giews>

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