MAURITANIA Food Security Outlook — February to September 2016

Average harvests and good pastoral conditions ease food insecurity

KEY MESSAGES

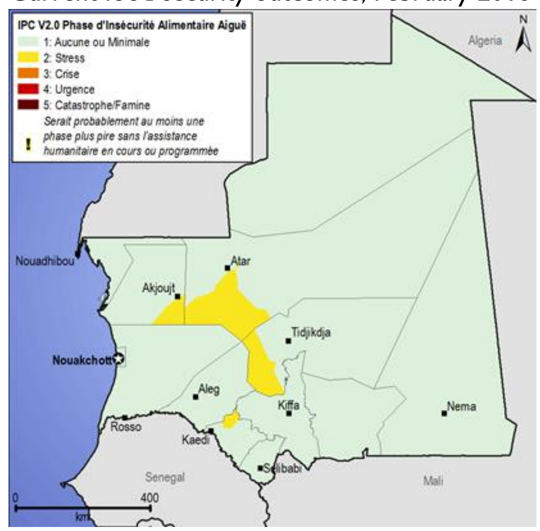
- Average cereal harvests, adequate market supplies from a normal flow of cross-border cereal trade and imports, and the rising prices of livestock between now and September are creating good food security conditions across the country. Thus, most poor households have regular food access and will continue to experience Minimal (IPC Phase 1) food insecurity through September 2016.

- The good pastoral conditions will shorten the lean season for pastoral populations and improve the physical conditions of livestock. They are also helping to improve animal birth rates in pastoral and agropastoral areas and to facilitate the rebuilding of animal herds that were diminished by livestock losses and sales during the past three difficult years in pastoral areas. The improvement in milk availability between July and September will help promote better food consumption by pastoral households.

- Agropastoral households in Akjoujt department in Inchiri, Aoujeft department in Adrar, and the western reaches of the agropastoral zone (Moudjeria and Monguel departments) have been affected by shortfalls in their crop production that have depleted their cereal stocks. These households are forced to purchase their food supplies with incomes sharply reduced by their smaller herd sizes since 2013. Consequently, they are currently experiencing Stressed (IPC Phase 2) food security conditions and will continue to do so through September 2016.

- Households in agropastoral areas of Brakna and the central portion of the oasis zone affected by pasture deficits in 2014 and 2015 will continue to rely on livestock sales due to this year's limited crop production. These production deficits have reduced the farm income of poor households and will keep them in Stressed (IPC Phase 2) between February and June. Yields from livestock-raising activities will reduce food insecurity outcomes to Minimal (IPC Phase 1) as of July.

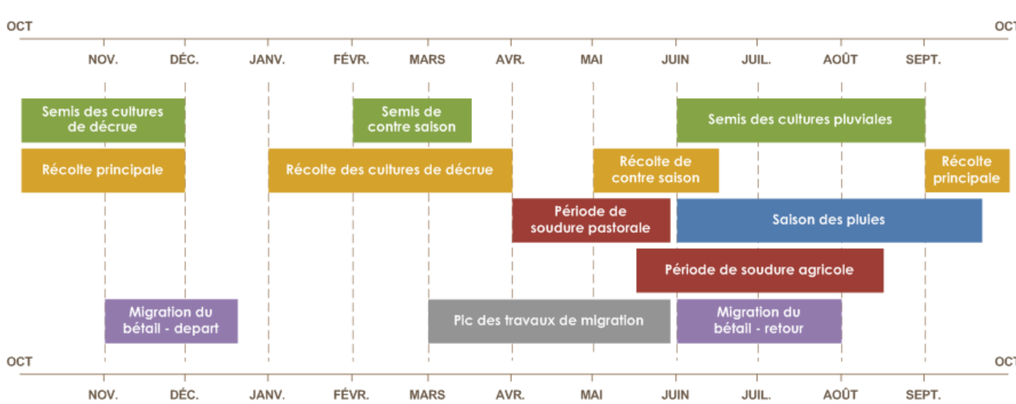
Current food security outcomes, February 2016



Source: *FEWS NET*

This map shows current relevant acute food insecurity outcomes for emergency decision-making. It does not reflect chronic food insecurity.

SEASONAL CALENDAR FOR A TYPICAL YEAR



Source: *FEWS NET*

NATIONAL OVERVIEW

Current situation

Agricultural conditions

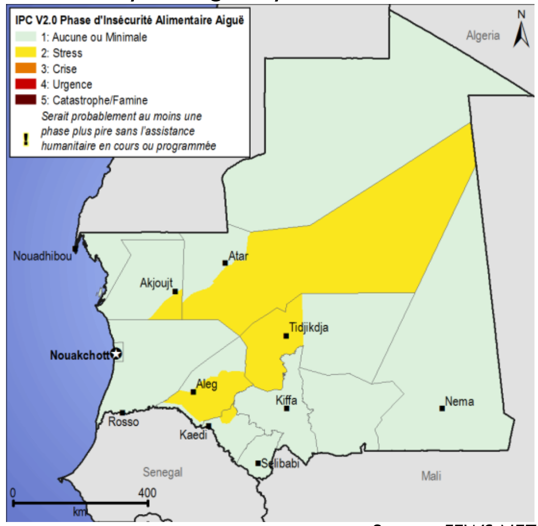
Rainfed cereal production was above-average levels. However, upcoming harvests of flood-recession crops in March could be average to below-average in spite of the good flooding levels in *walo* areas, lowlands, and dam areas and the large areas planted in these crops. With the delay in the recession of the floodwaters from these areas, crop planting activities in low-lying and intermediate areas extended into the middle of January, while they are normally concluded by October or November. On the other hand, crops in highland areas have been drying up since December.

These problems have been compounded by the intense pressure from crop pests (grasshoppers, beetles, grain-eating birds, etc.), which have sharply reduced yields of sorghum and maize. The off-season rice production during the hot season will be below the five-year average with reduced areas planted, both for fear of high farming costs due to the heat and the lack of an effective control program for grain-eating birds. Despite this year's good rainfed cereal production, these constraints on irrigated and flood-recession crops support the projection that the national crop production will surpass 2015 figures but remain below-average.

Market garden production is down sharply in oasis areas due to the water shortage in those areas, similar to average in the Senegal River Valley (mainly in Trarza), but well-below-average in Adrar (Aoujeft, Chinguitti, and Ouadane) and Tagant (Tidjikja). With the government no longer buying up market garden crops from farmers in the northern part of the country as part of its disengagement policy, these farmers are facing stiff competition from exports of European, Moroccan, and Senegalese crops and, thus, have limited the size of areas planted in these crops.

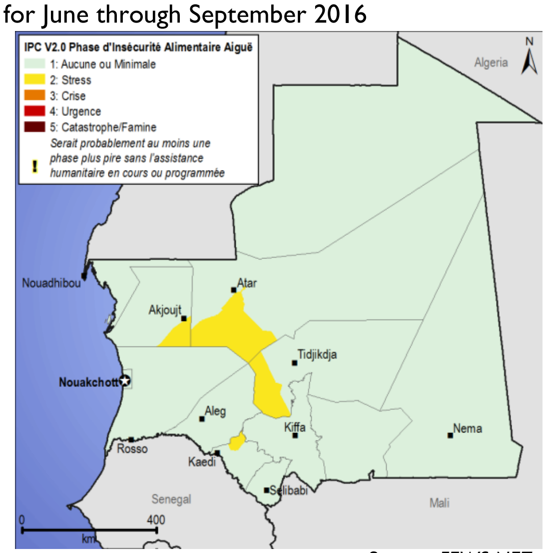
So far, the only hot off-season irrigated crops are in the Trarza area, where the size of cropped areas is down sharply from 2015 and well below the five-year average. In fact, many communities in Trarza have stopped growing these crops, following the example of their counterparts in Brakna and Gorgol. These farmers estimate that their farming costs, which are no longer covered by the government this year, would be too much to bear and that the pressure from grain-eating birds, which are still not under control, would pose a serious threat to their rice crops.

Most likely estimated food security outcomes for February through May 2016



Source: *FEWS NET*

Most likely estimated food security outcomes for June through September 2016



Source: *FEWS NET*

These maps show relevant acute food insecurity outcomes for emergency decision-making. They do not reflect chronic food insecurity.

Seasonal income

The incomes of poor households in the central and eastern reaches of the agropastoral zone (MR07) and the rainfed farming zone (MR09) are close to the five-year average, and seasonal farming and pastoral activities are following seasonal tendancies. On the other hand, poor households in the pastoral, oasis, and wadi zone (MR03), the river valley (MR08), the central portion of the transhumant pastoral zone (MR01), and the western reaches of the agropastoral zone (MR07) will have well-below-average incomes with smaller areas planted on account of rainfall anomalies and the delay in the recession of the floodwaters from flood-recession farming areas. This is reducing demand for farm labor. Poor households in river valley areas of Brakna and Gorgol have practically no income from farm labor during the hot off-season underway since February. Income levels in Trarza are also sharply reduced with the decreased cropped areas. The earlier than usual flow of short-term seasonal migration (since January instead of March/April) in all agropastoral areas affected by rainfall deficits or anomalies has not yet produced any significant effects in the form of food or cash. Households remaining behind report that migrants are encountering problems trying to find work in large cities (Nouakchott, Zouerate, Nouadhibou, etc.) due to heavy competition. The supply of labor is outstripping demand.

Pastoral conditions

Except for a few pockets of deficits in the northern and western reaches of the agropastoral zone (MR07), the pasturelands' capacity is meeting the needs of livestock herds. Animals are in satisfactory physical condition and, in some cases, in better condition than they were in the last few months and during the same period of 2015. However, there is little milk production due to the slow recovery in birth rates, with females weakened by the poor pastoral conditions of the last two years. Seasonal herd movements by transhumant livestock are in line with normal patterns of migration, and fire risks have been sharply reduced by the establishment and repair of fire-breaks. Safe havens in the southern and eastern parts of the country have enough vegetation to meet potential demand from other pastoral areas.

Retail markets

Retail markets are still well stocked with imported staple foodstuffs (wheat, rice, oil, sugar, flour, etc.). The recent rise in food prices (rice, oil, and sugar prices) in the wake of the fire in a SONIMEX warehouse (the National Import and Export Company) has only noticeably increased prices in Nouakchott. Prices in most parts of the country, supplied with re-exports of Senegalese rice, are still relatively stable.

Market supplies of coarse cereal crops are still much smaller than average. In addition to the delay in harvests, many farmers are still holding onto their rainfed cereal crops for their own consumption and do not plan to sell any crops until after the harvest of flood-recession crops (beginning in April). With the near-average harvests of rainfed crops, sorghum prices in all parts of the country have decreased from the same time in 2015 and below the five-year average. Prices for locally grown cereal crops are down from previous months, in line with normal seasonal trends, driven by the average to above-averge harvests of rainfed crops in all parts of the country, as well as in Mali. Prices on the Adel Bagrou market (in the rainfed farming zone) are around 120 MRO (compared with the average of 133.6 MRO) and prices in Boghé (in the river valley) are at 250 MRO, slightly above the five-year average of 224 MRO. In spite of the barely adequate harvest outlook for flood recession crops, the price of sorghum on the Aoujeft market in the pastoral, oasis, and wadi zone (362.5 MRO/kg) is still down from January 2015 (375 MRO/kg), but above the five-year average (351 MRO/kg). The combined effects of the lower prices for locally grown cereal crops and comparatively stable prices of imported foods are improving food access for poor households.

Livestock markets

Seasonal supplies of livestock are down sharply from the same period of 2015 and from a typical year. Pastoralists have limited their sales of livestock in order to rebuild their cattle and sheep herds that were reduced by animal losses and sales in 2015. Poor households, although pressured by the need to purchase food supplies, are choosing to delay their livestock sales until the lean season in farming areas and the high-demand period before Tabaski in June, when they will get better prices for their animals. In general, terms of trade are still close to average and, thus, in favor of poor households.

Assumptions

The most likely nationwide food security scenario for the period February through September 2016 is based on the following general assumptions:

<u>Agricultural activities</u>

- **Agro-climatic conditions:** Based on the analysis of NOAA, ECMWS, IRI, and UK MET seasonal forecasting models, rainfall levels for the 2016 rainy season are expected to be average to below-average. As usual, the rains will begin at the end of June and end in early October, with rainfall activity peaking between the third dekad of August and the first dekad of September. There will be sufficient cumulative annual rainfall for normal crop growth and development.
- **Crop production**: With the projected shortfall in hot off-season crop production due to fears of soaring costs (in the absence of any government assistance since 2015) and continuing pressure from bird infestations which are not yet under control, crop production should surpass 2015 figures but be below the five-year average.
- **Plant conditions:** In spite of the stable locust situation and regular surveillance by the National Locust Control Center (CNLA), there is still some risk of a locust infestation due to the lack of surveillance in insecure areas of northern Mali, northern Niger, and the southern Sahara and the environmental conditions conducive to a second breeding season in northern Mauritania. Infestation rates for other crop pests such as grasshoppers, beetles, and stalk borers should remain

stable, but there will be a further increase in the already intense pressure in 2015 of grain-eating birds, given the ongoing nesting activities and the lack of treatment programs. This has caused a sharp rise in bird densities.

- **Agricultural income:** The smaller areas planted in flood-recession and hot off-season irrigated crops will reduce demand for farm labor and, with no raise in daily wage rates (ranging from 1500 to 2000 MRO depending on the type of work), poor households will have well below-average incomes from farm labor between February and June. On the other hand, with the outlook for an average to slightly below-average rainy season and the start-up of cold off-season irrigated farming activities, incomes should rebound to near-average levels by the beginning of July.

Pastoral activities

- **Pastoral conditions:** Pasturelands' capacity across the country will meet the needs of livestock herds throughout the outlook period. Livestock will remain in good physical shape without the need for pastoralists to purchase animal feed, except in a few pockets of below-average pastoral conditions in Aoujeft, Moudjeria, and Monguel departments. Prices for animal feed are expected to plunge with the sharp decline in demand (except for that of milk vendors selling to dairies). Animal birth rates will follow normal seasonal trends, but there will still be below-average levels of milk production, a crucial dietary staple, due to the smaller size of animal herds. Many households in pastoral and agropastoral areas will continue to buy powdered milk between now and July, whose price will stay above-average (it is currently already approximately 20 percent above-average). There will be more or less normal seasonal herd movements by transhumant livestock in search of water, both in terms of their migration routes and their timing.
- **Income from pastoral activities:** Based on the average outlook for pastoral conditions, average levels of seasonal income from pastoral activities are expected between February and July. With the heavy competition from milk collectors and pastoralists, the sale of milk by poor households in agropastoral areas, the river valley, rainfed farming areas, and transhumant pastoral area will generate below-average levels of income, particularly with the sharp reduction in cattle and sheep herds in most livelihood zones due to the losses and sales of animals in the past few years and with animal birth rates just starting to recover.

Markets

- **Food imports:** There will be a sufficient volume of regular imports of staple foodstuffs (rice, wheat, sugar, oil, etc.) during the outlook period to meet domestic consumption needs and to sustain a normal flow of re-exports to Senegal, Mali, and the southern Maghreb, where the resale of these items and manufactured goods serves as a source of foreign exchange.
- **Livestock markets:** There will be a larger than usual contraction in market supplies between February and September due to the herd rebuilding needs of pastoral households, the impact of harvests of flood-recession crops (cereals and pulses), which will reduce demand for food products purchased from earnings of animal sales, as well as the fewer animal sales of poor and middle-income households whose herds were diminished by the losses and sales in 2014 and 2015. On the other hand, there could be a normal supply of livestock by May in anticipation of the celebration of Tabaski, to meet domestic demand and demand for livestock exports to Senegal and southwestern Mali.
- **Livestock prices:** The average prices of livestock will be higher than usual throughout the outlook period, fueled by demand for the celebration of Tabaski and the recovery of pastoral conditions between July and September, after the end of Tabaski. This will limit the volume of sales. Thus, prices should be above typical threshold levels in an average year (by 20 to 30 percent), which should help poor households.
- **Cereal prices:** With the just barely average harvests of flood-recession crops, sorghum prices in the post-harvest period (between February and April) will be reduced less than usual (by 10 to 20 percent from February). Between June and September, the depletion of the cereal stocks of poor households in May will drive prices back up, but the good market supplies of imported wheat, the main substitute cereal for sorghum, are expected to keep seasonal rises in prices to within 30 percent of their current levels.

Other major food security drivers

- **Migrant remittances:** Even with the early flow of short-term seasonal migration (beginning in December/January instead of in March/April) and the larger numbers of migrants (two or three household members instead of only one) from areas with large rainfall deficits (the western reaches of the agropastoral zone and eastern and central reaches of the pastoral, oasis, and wadi zone), there will be a well below-average volume of remittances throughout the outlook period. The sluggish economy in urban areas and the saturation of the informal sector (a sharp increase in the supply of labor and simultaneous decline in noncommercial economic activity) will make it difficult for unskilled migrant laborers to find stable, lucrative work.

- **Wild plant products**: Harvests of jujubes (red dates), gum Arabic, and monkey bread fruits are in their final stages in most growing areas. Harvests of desert dates (the fruit of the balanite tree) are underway and, as usual, could extend through the end of March. The near-average yields from these harvests should generate an average stream of income (around 50,000 MRO).
- **Debt:** Part of the harvest of flood-recession crops in all rural areas affected by crop production deficits between 2013 and 2015 will be used to partially repay outstanding debts and food loans between February and March. Poor households in certain deficit areas (Aoujeft in Adrar, Moudjeria in Tagant, and Monguel in Gorgol) have already begun to resort to new food loans. In other rural areas, such arrangements will resume during the lean season for farming households but should not be as heavily used due to the stable price of imported wheat (the main substitute cereal) and the expected rise in livestock prices (between April and June), which will maintain favorable terms of trade for local households.
- **Assistance programs:** As in previous years, the usual traditional assistance programs will operate in all parts of the country, including "*boutiques de solidarité"* (BS) (government-subsidized food outlets), village-level food security stocks (SAVS), school meal programs (CS), and outpatient therapeutic feeding centers (CRENAMs). There will be adequate, regular deliveries of humanitarian assistance to Malian refugees in the M'Bera camp throughout the outlook period.

Most likely food security outcomes

February through May

The good pastoral conditions, average levels of crop production, rising prices of livestock, and good market supplies at relatively stable prices in most parts of the country are providing poor households with normal seasonal livelihoods. Thus, these households will experience Minimal (IPC Phase 1) food insecurity.

The large rainfall deficit in the central reaches of the country (Aoujeft department in Adrar and Akjoujt department in Inchiri) has affected pastures and sharply limited farming activities (for flood recession and market garden crops) and date production. Poor households will continue to resort to purchases of food supplies during this period while facing a sharp reduction in their seasonal income, which will curtail their access to commercially marketed foodstuffs and place them in Stressed (IPC Phase 2) outcomes of food insecurity.

In Gorgol, poor households in the central and western reaches of the Monguel department, which were in Crisis (IPC Phase 3) in 2014 and until September 2015 are seeing an improvement in farming and pastoral conditions this year, but conditions in these areas are still much poorer than usual. This year's limited volume of crop production will cover household food needs for three to four months at most (instead of the average six to seven-month) and the smaller size of livestock herds will prevent pastoral households from generating enough income with which to properly supplement their diet and, at the same time, repay several (three to four) months worth of accrued food loans. Accordingly, the food security situation of these poor households will be Stressed (IPC Phase 2).

Poor households in southwestern areas of Tagant (in Moudjeria department) will be in a similar situation. Severely affected by the poor pastoral conditions in 2014 and 2015 resulting in large losses and sales of livestock, these households will put increased pressure on their herds with additional animal sales this year. These sales are due to shortfalls in their rainfed cereal production, their sharply reduced yields from livestock production in the form of food and cash given their smaller herds, and their lack of other sources of income (there is very little migration income in this area). In effect, these sales of animals will create livelihood protection deficits putting these households in the Stressed (IPC Phase 2) food insecurity between February and June.

Even with the average levels of rainfed crop production in the western reaches of the agropastoral zone (the Brakna region), the expected shortfall in flood recession crop production will result in an earlier than expected lean season (beginning in April rather than May). Like in other pastoral areas, the smaller size of livestock herds and their debt burden from previous years will limit the ability of local households to respond to this shock without reducing their nonfood spending, which will put them in a Stressed (IPC Phase 2) food security situation between April and June.

The water shortage in 2015 has reduced the incomes of poor households in Chinguitti and Ouadane departments (in the Adrar region) and Tidjikja department in Tagant from market gardening and flood-recession farming activities (by around 50 percent). These households are normally highly reliant on purchased food supplies, largely from Nouakchott and the southern Maghreb. The sharp decline in exports from the Maghreb region for security reasons will leave these households extremely dependent on the Nouakchott market, where the fire in the SONIMEX warehouse has driven up food prices. Their reduced incomes and the high price of food in their supply zone will put them in the Stressed (IPC Phase 2) phase of food insecurity between February and June.

June through September

The food security situation of households in both agropastoral and wadi areas (Monguel department in Gorgol, Moudjeria department in Tagant, Aoujeft department in Adrar, and Akjoujt department in Inchiri) will remain Stressed (IPC Phase 2) due to the continuing effects of their reduced herd size, which is limiting their sales potential and associated sales revenues, as well as the impact of outstanding debts repayable solely from their cash earnings, since this year's crop yields will not suffice for this purpose. Thus, they will be unable to maintain regular, adequate food access without creating livelihood protection deficits endangering their remaining livelihoods (livestock-raising).

Current pastoral conditions in the Brakna agropastoral area will help the recovery in animal birth rates and improve milk availability by July, where poor households will experience Minimal (IPC Phase 1) food insecurity. Likewise, date production and sales in Chinguitti and Ouadane departments in Adrar and Tidjikja department in Tagant (although below-average) and yields from livestock production during the rainy season should ensure Minimal (IPC Phase 1) food insecurity between July and September.

With the normal start of the rainy season and the resuming of farming activities (for *dieri* and irrigated rainy season crops), the improvement in income from farm labor to near-average levels, the new pasture growth improving livestock production, the high prices of livestock fueled by demand for Tabaski, and the regular operation of inter-annual assistance programs, poor households in other parts of the country will continue to experience Minimal (IPC Phase 1) food insecurity.

AREAS OF CONCERN

Southwestern agropastoral zone (central and southern Monguel department in Gorgol) – Livelihood zone MR07

The western reaches of the agropastoral zone is inhabited by both livestock-oriented and farming-oriented agropastoral households. The former sub-group with larger livestock herds has more possibilities of selling animals as a way to purchase food supplies than the latter sub-group of households, concentrated mainly in the central and southern reaches of the Monguel department in Gorgol. This area experienced rainfall anomalies and deficits for the third consecutive year, which have severely affected the farming and livestock-raising activities and associated earnings of poor households. The area has a population of 29,209 farming-oriented agropastoralists (in the municipalities of Batha Moit, Melzem Teichett, and Azgueilem), of which approximately 60 percent (some 17,525 people) are classified as very poor or poor and are having trouble offsetting their production deficits with purchases of food supplies.

Current situation

Agricultural conditions

Rainfed crops have already been harvested and flood-recession crops are in the emergence to the maturation stage (mainly in the case of maize crops), with most crops currently in the tillering stage. They should, at a minimum, be in the height growth stage by this time, which puts them at least a month behind schedule. Normally, poor farming-oriented agropastoral households grow both rainfed crops (sorghum, cowpeas, and watermelons) to meet their food needs for three months and flood recession crops (sorghum, maize, and cowpeas) to cover their needs for another two to four months. This year, however, a heavy bird infestation has aggravated the effects of the late start of the rainy season and ensuing rainfall anomalies. In addition, many farmers (particularly young people), weary after several years of crop production deficits, no longer want to devote themselves to growing crops;, some of whom chose instead to engage in short-term seasonal labor migration. The result is smaller areas planted and smaller yields of rainfed cereal crops, equivalent to barely a third of the average production. This will meet the food consumption needs of a poor household for forty-five days at best. Based on their main growing stages and the smaller cropped area, yields of flood recession crops are projected to meet household consumption needs for one or two months at most, compared with an average coverage period of two to four months. The only near-average harvests were of cowpea and watermelon crops.

Pastoral conditions

There are below-average levels of pasture production in this area, but the lush pastures in near-by areas are reassuring agropastoral households, which have not yet engaged in any atypical seasonal migration. Seasonal milk production is still well below-average due to the smaller than average numbers of births from the many female animals debilitated by the poor pastoral conditions in 2014 and 2015. In addition, the losses of animals in 2015 and atypical sales of livestock have sharply reduced herd size (which is down by 50 to 60 percent from 2013).

Seasonal income

Certain poor farmers have headed to crop-growing areas of the river valley in this department, where they have found work on farms growing *walo* and irrigated crops. In spite of the near-average daily wage rates (1500 MRO) for this type of work, they are earning below-average amounts of income due to the fewer days of work required by the smaller areas planted and the larger labor pool. With the planting of smaller areas, many poor farmers quickly finished working their own land and are looking to work as farmhands for other farm operators.

This year, income from crop sales which, on average, accounts for approximately seven percent of the annual income of poor households, is limited to sales revenues from wild plant products. Most sales of crops involve melons, with a sack of watermelons (containing 10 or 11 melons) selling for around 2300 MRO, which is approximately 50 percent below-average. This year, yields of red watermelons, whose seeds are used for household consumption and which normally meet household needs for an average of five to six months, will cover only four months worth of needs. Poor households have been selling jujubes (red dates) at double their average price (300 MRO for a 4 kg sack). The above-average yields of this wild fruit generated close to 45,000 MRO in seasonal income for poor households between December and January.

In spite of the larger number of family members (two or three rather than only one) engaging in short-term seasonal labor migration earlier than usual (beginning in December/January rather than March/April in a typical year), poor households are still not seeing any major effects in the form of food or cash since these migrant workers are having trouble finding jobs in urban areas, where there is a large supply of labor from all parts of the countryside.

Debt

After several consecutive years of food insecurity, households have above-average levels of debt. A significant number of households still have several past-due loans with an estimated value of 100,000 to 200,000 MRO per household (the equivalent of two to four months worth of food consumption). Poor households normally repay these loans in kind at harvest time when crop prices (for sorghum, maize, cowpeas, and watermelons) are at their lowest, but households are becoming more and more inclined to pay them off in cash, in installment payments made at opportune moments. This change in their repayment behavior is making local traders with their own repayment obligations to their wholesale suppliers increasingly less apt to make medium and long-term loans.

Markets and prices

Markets are well stocked with imported foodstuffs but prices which, thus far, have been stable could increase temporarily with the sharp rises in prices on the Nouakchott market due to the fire in the SONIMEX food warehouse. However, this is not expected to disrupt supply channels for rural markets, nor is it expected to last long.

Though better than at the same period in 2015, coarse cereal supplies (from local harvests, sorghum and maize exports from Mali and maize exports from Senegal) are still well below-average. Poor households in this area have already depleted their stocks of rainfed crops and are consuming food purchased on the market. Their food access is being sustained, in part, by income from the gathering and sale of red dates (jujube) between December and mid-January and, in part, by ongoing sales of small ruminants by certain households, which will extend through the month of March.

The tighter market supplies of locally grown cereal crops are offset by the large availability of substitute cereals (rice and wheat). Supplies of wheat, which is widely consumed, and of locally grown and imported Senegalese rice are meeting demand. The price of a "*moud*" (a unit of measurement equal to four kg) of sorghum, the main locally grown cereal crop, which was around 600 MRO at harvest time (in December) is presently fluctuating between 900 and 1200 MRO. However, it is still lower than at the same time in 2015, when it ranged from 1300 to 1600 MRO depending on the area and the magnitude of corresponding production deficits.

Livestock markets

There are few animals to be found on livestock markets in this area. Supplies are much tighter than in an average year when pastoralists are selling livestock in order to stock up on cereals and cereal prices are at their lowest levels at this period (the post-harvest period for *dieri* crops and pre-harvest period for flood recession crops). Their losses and sales of animals and the low annual birth rates in the last several years have sharply limited livestock sales by middle-income and better-off households, the main sources of supply for livestock markets. In general, poor households raising mostly goats and a few sheep have begun selling animals again, but many have chosen to hold off until the lean season when livestock prices are normally at their peak. As usual, livestock prices have been rising since the restart of rainfall activity in September.

Food consumption and food security levels

Farming-oriented agropastoral households had normal levels of food consumption through January, which marked the end of household food stocks from rainfed crop harvests, but consumption levels may have started to deteriorate as of February. These households have been forced to resort to purchasing their food supplies since January (three or four months sooner than usual) while their main sources of income are dwindling, income from the sale of part of their crops and of wild plant products has dried up, sales of milk are limited by the small numbers of new births and their reduced herd size as a result of the losses and sales of animals in the past few years, and self-employment activities, which are highly dependent on farming conditions, are generating very little income. Their limited local seasonal employment opportunities and their repayment of debts with income from livestock sales and assistance programs are putting pressure on their livelihoods, creating Stressed (IPC Phase 2) conditions.

Assumptions

The most likely local food security scenario described below for the period from February through September 2016 is based on the following general assumptions:

- **Crop production:** *Walo* crops in low-lying areas and lowland crops will not reach maturity due to the delay in the recession of the floodwaters from these areas and the high seasonal temperatures, which delayed the planting of maize and sorghum crops by a full month. As a result, flood recession crop production which, on average, meets the food needs of poor households for three to four months, will cover their needs for only two months at best. Farming activities for rainfed and irrigated crops will pick up between June and September, in line with the normal crop calendar, producing near-average crop yields and incomes.
- **Livestock production:** With the smaller size of livestock herds, there will be below-average levels of milk production for the entire outlook period. The improvement in milk production between July and September with the average pastoral conditions by that time (and associated new animal births) could help stabilize current conditions in pastoral areas but will not suffice to improve current levels of household food insecurity.
- **Income:** Wage rates for farm labor will remain stable throughout the outlook period, but there will be few if any on-farm employment opportunities until the start of the rainy season and the resumption of farming activities for irrigated crops in the river valley and for rainfed crops (between June and August) in most parts of the country. Thus, there will be below-average employment opportunities for farm labor between February and May, followed by their normalization between July and September. Migration income will be limited throughout the outlook period with the larger than average supply of labor in destination areas for migrant workers and with many of these workers returning home at the start of the rainy season.
- **Markets and prices:** Markets will be well stocked with imported foodstuffs (rice, sugar, oil, wheat, milk, etc.) for the entire outlook period. There will be an improvement in seasonal coarse cereal supplies between March and May with the harvests of flood recession crops, though they will still be smaller than average. Imports of Senegalese rice will keep pace with market demand. Prices will remain stable, with current price shocks from the fire in the SONIMEX warehouse in Nouakchott not expected to have any visible lasting effect on local markets, which are more dependent on cross-border trade with Senegal than on supplies from Nouakchott. The price of an average sheep (the main animal traded in this area) will continue to rise and, driven by high demand for Tabaski (between April and June), could match seasonal prices in 2013 (between 27,000 and 34,000 MRO).
- **Debt:** This year, some households will have three to four months worth of accrued debts to pay off. The repayment of these debts during the outlook period will strain household income and negatively affect the ability of these households to purchase food supplies. The change in the repayment behavior of poor households, with them refusing to repay their debts at harvest time and choosing to make installment payments at more opportune moments, could breach the trust of traders, causing them to limit any future food loans.

- **Plant health conditions**: The locust situation is stable, but there will continue to be heavy pressure from bird infestations on all types of crops throughout the outlook period with the failure of the national control program to manage the situation.
- **Nutritional situation:** In the absence of a new SMART survey, FEWS NET is assuming there will be the usual seasonal decline in global acute malnutrition (GAM) prevalences. Despite the shortfall in crop production, these prevalences will be driven by better food access (from harvests of flood recession crops), which will put them close to the average, at around nine percent, between February and April. With the depletion of household food stocks as of May, these rates will steadily climb through the month of July in line with normal seasonal trends during the lean season. They will decrease again in August with the new improvement in milk production and access to green rainfed crops.

Most likely food security outcomes

The decline in rainfed and flood recession crop production and in their major sources of income in addition to their repayment obligations for previous food loans are putting pressure on the livelihoods (livestock) of poor households already weakened by the losses and sales of animals in 2014 and 2015. Many poor households whose herds have been reduced to only half their normal size at best (seven to 10 small ruminants on average) have lost much of their sale potential. A good portion of their already below-average incomes from farm labor between February and June and even their average earnings between July and September will be used to repay their debts. With their limited self-employment opportunities and migration income, they will not have enough remaining income with which to routinely meet basic nonfood needs in areas such as health, for example. Thus, poor households will be facing Stressed (IPC Phase 2) food security conditions for the entire outlook period.

Southwestern pastoral, oasis, and wadi zone (Aoujeft department and southeastern Akjoujt department) – Livelihood zone MR03

Aoujeft department and the southeastern reaches of Akjoujt department in Inchiri, in the pastoral, oasis, and wadi zone are inhabited by poor farming households affected by the rainfall deficit in 2015. Of the 88,400 inhabitants in this target area, approximately 11,207 households are classified as very poor and poor (7863 in Aoujeft department and 3344 very poor households in Inchiri), representing approximately 51 percent of the population.

Current situation

Agricultural conditions

The low, erratic rainfall in 2015 limited farming opportunities in both wadi areas (planted in flood recession sorghum, cowpea, and watermelon crops) and in oasis areas used to grow dates and market garden crops. Harvests of crops in rainfed lowland areas and along the banks of wadis (sorghum, watermelons, and cowpeas) are concluded and yields are well below-average, particularly in Aoujeft department where poor farmers, discouraged by the rainfall anomalies, abandoned their farms to engage in short-term seasonal labor migration. These households have been contending with crop and livestock production deficits since 2014. Flood recession farming activities continue (in lowland and dam areas), but cropped areas are smaller than average due to low flooding rates (which are barely half their normal level). Crops are in the height growth and heading stages, in line with normal crop calendars, though crops planted in highland areas are beginning to show signs of wilting, which could be aggravated by the lack of cold season rains and a seasonal cool-down in temperatures. There are ongoing market gardening activities in oasis areas, but with smaller areas planted due to the lack of sufficient rain, as well as the lack of outlets for these crops (with the government's disengagement this year), market gardeners are facing strong competition from Moroccan, European, and Senegalese vegetable imports. In addition, with low water level tables in oasis areas this year, oasis farmers are expecting a large shortfall in date production.

Locust situation

Though this area is a breeding ground for desert locusts, the National Locust Control Center (CNLA) believes that ongoing treatments should stabilize current locust infestation levels in this area and contain the threat of a second breeding season for desert locust populations created by the favorable environmental conditions.

Pastoral conditions

Pastures in most parts of the zone are in mediocre condition this year due to rainfall deficits and anomalies, with the frailest animals (sheep and cattle) beginning their seasonal migration by December (four months earlier than usual). Households choosing to hold on to a few head of livestock as a source of food (to meet their need for milk) have started to resort to the use of alfalfa grown in oasis areas as animal feed. Many poor households lost over half their livestock herds prior to 2015 and the low animal birth rates in the past two years have slowed the rebuilding of their herds and limited their livestock sales.

Seasonal income

The meagre seasonal incomes of poor households are barely 40 percent of average and are mostly from informal farm labor in flood recession farming areas or oasis areas. Despite the higher daily wage rates (2500 to 3000 MRO/day, up from 2000 MRO in 2015), there are below-average levels of income-generation from farm labor due to the small areas planted in flood recession crops. This requires fewer workers and less work time. In addition, most of the labor force is engaged in short-term seasonal labor migration, with only three percent of poor area households reaping the benefits of the presence of road construction firms, many of which require professional qualifications.

While wage rates are stable (at between 15,000 and 35,000 MRO/month depending on the type and size of the livestock herd), there is less income from pastoral labor with the smaller herd sizes and the departure of transhumant livestock for seasonal grazing lands.

Commercial cereal availability and cereal prices

With the poor harvest of rainfed crops, coarse cereal supplies (mainly sorghum) have been limited to stocks of imports since 2015. The drop in prices (by 3.4 percent) from the same period in 2015 is much more a result of the lower demand for seeds for flood recession farming activities (with the smaller areas planted in these crops) than of the presence of fresh crops. In addition, the good availability of wheat (due to larger imports of wheat for use as animal feed) is contributing to the slowdown in demand for commercially marketed sorghum. All local markets are well stocked with imported foodstuffs (rice, oil, sugar, etc.) from commercial imports and imports by the government (for its "*boutiques de solidarité*"). The stable prices of these foodstuffs in general and of rice in particular through the middle of January have now begun to rise. The price of rice, for example, went from 350 MRO/kg to 400 MRO/kg between January and February 2016, with most local markets getting their supplies from Nouakchott, where the fire in the SONIMEX warehouse has sparked a rise in food prices.

Livestock markets

This year, the area's only livestock market (Aoujeft) has very few supplies of local livestock, with most animals already in seasonal grazing areas of Trarza and northern Brakna. Supplies are limited mainly to local camels and sheep from Nouakchott representing re-exports of animals imported from pastoral areas in the eastern and central reaches of the country. The price of an average sheep (40,000 MRO) has increased from the same time in 2015 (32,500 MRO) and is above the five-year average (30,980 MRO) with the slowdown in sales due to the smaller size of livestock herds and the current access to fresh crops.

Trans-Saharan trade

There has been a visible slowdown in food trade (trade in sugar, tea, milk, rice, food pastes, etc.) given the security problems in Saharan areas of the Maghreb. These areas are a major source of food supplies for poor households, selling at prices 40 to 60 percent below those of foodstuffs available from local traders.

Humanitarian assistance

Aside from the "*boutiques de solidarité*" selling food at government-subsidized prices (30 to 40 percent below local market prices), which are running smoothly, there are no other food assistance programs in this area.

Food consumption and food security levels

There has been no change in the Stressed (IPC Phase 2) food security situation of poor households in this area since July 2015. Yields from rainy season activities (crop production and sales revenues) and oasis farming activities (market gardening activities), which normally help ease these normal seasonal conditions, are not effective or lucrative enough to improve food insecurity levels. In addition, the sharp reduction in the size of livestock herds (cut by 50 percent since 2014) and the low annual birth rates are limiting their sales potential to satisfy households' food needs and repayment of food loans incurred in 2014 and 2015. They are having trouble maintaining regular adequate food access and their secondary livelihood (livestock-raising) is under heavy pressure, which is keeping them in the Stressed (IPC Phase 2) phase of food insecurity.

Assumptions

The most likely local food security scenario described below for the period from February through September 2016 is based on the following general assumptions:

- **Agricultural conditions:** Low levels of crop production (mainly from sorghum and cowpea crops harvested in March) will cover household needs for less than a month, compared with an average coverage period of two to three months. There will also be limited yields of hot off-season market garden crops due to problems with water availability. Date production will be below-average due to the expected average to slightly below-average rainy season. Rainfed farming activities (the growing of crops in rainfed lowland areas) between July and September will continue normally.
- **Pastoral conditions:** Given the pasture deficit in this area, even with the early departure of transhumant livestock herds, sedentary pastoralists will resort to the use of plant products (alfalfa) generally reserved for the lean season (between April and July) sooner than usual. They will also start paying for animal feed by March, one or two months sooner than usual. These early purchases will put a strain on their incomes generally used to purchase household food supplies. Pastoral conditions will begin to improve by July, in line with normal seasonal trends.
- **Seasonal income:** There will be a sharp reduction in seasonal income from farm labor (cash and in-kind wages, mostly on palm plantations) between February and June with the shortfall in crop production. With current forecasts predicting an average rainy season, income levels should normalize between July and September, during the rainy season. Current income levels from short-term seasonal labor migration will not change. Below-average levels of income from the sale of livestock due to the smaller size of animal herds will continue.
- **Commercial cereal availability and cereal prices:** Markets will be well stocked with imported foodstuffs (rice, oil, sugar, etc.) for the entire outlook period. With the rise in food prices in Nouakchott, the area's sole source of supply, there will be atypical price rises of these commodities once households finish consuming crops from their harvests (mainly between March and September). Coarse cereal supplies will remain limited, but poor households will turn to wheat, whose price will be stabilized by the regular, adequate supplies of this commodity in "*boutiques de solidarité"* at government-subsidized prices (30 percent below their market price). The slowdown in the trans-Saharan food trade given the growing security problems in the southern Maghreb will limit the food access of poor households previously able to purchase these commodities at prices at least 50 percent below their cost in local formal trade channels.
- **Livestock markets**: Livestock markets will continue to have limited supplies of animals and there will be steeper than average seasonal rises in livestock prices throughout the outlook period. However, the only parties benefiting from this situation will be traders importing livestock from Nouakchott because poor households will be forced to limit their sales, having already lost more than half their herds and with their remaining animals largely away in seasonal grazing areas.
- **Nutritional situation**: Malnutrition rates will be near the five-year average (which is around five percent), with crop production and good market supplies keeping food prices relatively stable. This should help prevent any major deterioration in current conditions between now and June. Between July and August, the beginning of the lean season in farming areas will trigger a seasonal rise in malnutrition levels, which will be followed by a seasonal decline in malnutrition rates as of August, driven by food production during the rainy season.

Most likely food security outcomes

With the large shortfall in rainfed crop production and their lower seasonal incomes mainly from farming activities, poor households in Aoujeft department in Adrar and the southeastern reaches of Akjoujt department in Inchiri will only minimally meet their food consumption needs. Their sharply diminished livestock herds (50 percent smaller than in 2014), decimated by sales for food purchases and losses of animals due to pasture deficits, cannot sustain any additional sales of animals without further heightening the risk of livestock protection deficits, which are already threatening this secondary livelihood. Their main livelihood (crop production) is already undermined by last year's water shortage. Accordingly, these households will be in Stressed (IPC Phase 2) food insecurity for the entire outlook period.

EVENTS THAT COULD CHANGE THE OUTLOOK

Table 1: Possible events in the next eight months that could change the outlook

Area	Event	Impacts on food security conditions
National	Long-term disruption in cross-border trade and food imports	Higher prices for coarse cereals and imported foods, eroding the food access of poor households
National	Sharp decline in hot off-season rice production	Shortages in government-subsidized outlets (*boutiques de solidarité*) selling locally grown rice purchased from farmers to poor households. Increased pressure on imported rice liable to drive up its price, curtailing the staple food access of poor households
National	Termination of a joint bird control program with neighboring countries (Senegal and Mali)	Attacks on irrigated and rainfed crops, with farmers refusing to grow crops, resulting in production shortfalls
National	An erratic rainy season with rainfall deficits	Limitation of farming and pastoral activities and extension of the lean season in many rural areas
Monguel	Growing problems with stalk borers (an insect destructive to cereal crops) present in the area for several years	Enormous losses of flood recession crops and, in some cases, the abandonment of farms and an earlier than usual lean season
Aoujeft	Extended price shocks in Nouakchott	Impact on food prices, with ensuing rises in prices aggravating food access problems for poor households
Aoujeft	Security issues in the north	Limited volume of trade with Nouakchott and the southern Maghreb, undermining food availability and triggering atypical rises in prices
Hodh Ech Chargui	Continued low supplies from cross-border trade with Mali on weekly markets	Poor households in southern Hodh Ech Chargui also coping with the reduced size of their animal herds after the last few difficult years will be Stressed (IPC Phase 2) between June and September.

ABOUT SCENARIO DEVELOPMENT

To project food security outcomes over an eight-month period, FEWS NET develops a set of basic assumptions about likely events, their effects, and the probable responses of various actors. FEWS NET analyzes these assumptions in the context of current conditions and local livelihoods to develop scenarios predicting food security outcomes. Typically, FEWS NET bases its projections on the most likely scenario. Learn more here.