

SPECIAL REPORT

FAO/WFP CROP AND FOOD SUPPLY ASSESSMENT MISSION TO SENEGAL

21 December 2004

Highlights

- Cereal production in the 2004 growing season has been estimated at 1 132 700 tonnes, a reduction of 22 percent compared with 2003 but close to the average of the last five years. This decrease in cereal production is explained by the fall in millet areas (-23 percent) and sorghum areas (-19 percent) due to drought at the start of the season, the locust invasion since June 2004, and the substitution of these crops with subsidised groundnut (+30 percent compared with 2003). With the extra production in the off-season, estimated at about 52 366 tonnes, total net cereal production for 2004 – 2005 will be 946 150 tonnes.
- Millet production is significantly down by 34 percent compared with the average of the last five years. In the deficit regions, this led to a sustained increase in millet prices between September and October 2004, which means the food situation will be even more tight for the most vulnerable households if this trend continues.
- The opposite trend was observed for livestock prices because of the degradation of pasture land which caused the north-south transhumance process to start early with adverse effects on crop areas where harvesting had not yet been completed. Hence, the need for the rapid organization of adapted transhumance corridors, the start-up of an animal health programme and the provision of moderately-priced fodder.
- Consumption requirements are in the order of 1 824 480 tonnes. This implies a deficit of 878 330 tonnes which could be offset by commercial imports of 871 550 tonnes of rice and wheat and an expected 6 780 tonnes of rice as food aid. Although Senegal may be able to cover its needs with food imports essentially on a commercial basis, this should not obscure the precarious situation of people living in the zones badly affected in 2004 by locusts and drought.
- The urgent supply of agricultural inputs, particularly seed, is recommended to enable affected farmers to begin the new crop season, beginning in April 2005, in good conditions. In the short term, the distribution of seed and horticultural inputs for the off-season crops may help further to improve food security for the households concerned. The mission estimated that about 124 300 households, i.e. 20 percent of rural households, will need emergency agricultural assistance.
- With a strong mobilization of the country and its partners during the desert locust campaign control campaign which is still under way, the invasion has not spread over the major crop belts. Nevertheless, the plague has not been completely brought under control and extra efforts are necessary.
- For the future, the locust problem is alarming given the high probability of these insects returning in 2005 following spring reproduction in the Maghreb. Therefore, the international community must mobilize to implement a regional strategy that is more pro-active than reactive, integrating the bio-technological, environmental, and socio-economic aspects of locust control.

1. OVERVIEW

In 2004 Senegal has undergone a severe plague of locusts, badly affecting the harvests, particularly in the agro-pastoral regions in the northern half of the country where crop losses were also observed due to the irregularity and/or abrupt end of the rains. A joint FAO/WFP/CILSS crop and food availability assessment mission visited the country from 18 to 31 October 2004 with the following aims: to estimate the harvests for the current year and the damage caused by the desert locust to crops and pastures; to assess the resulting food situation overall; and to predict possible food requirements for 2004/05, including imports and food aid from the international community.



FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, ROME



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The mission comprised experts from CILSS, FAO, WFP and FEWS-NET and an observer from French Cooperation. It is worth noting that the FAO team included a specialist from its Emergency Services in Rome. The latter's mandate was to identify, as of then, the vulnerable groups whose food security had been further reduced as a result of the locusts and/or drought ; and to propose some palliative measures to enable them to re-start their agricultural production. The mission enjoyed the support of all the central and regional departments of the Ministry of Agriculture, Animal Husbandry and Water Resources as well as the support of the other services and ministries called upon. Constructive discussions were also held with some agencies of the United Nations (FAO and UNDP), with donors (in particular USAID and the World Bank) and with the NGOs as well as cereal importers.

The mission conducted its field work from 19 to 29 October 2004. Initially some preparatory meetings were held at FAO and WFP offices, the Ministry of Agriculture, Animal Husbandry and Water Resources (in particular the general secretariat and the departments of animal husbandry, agriculture (DA), plant protection (DPV), and analyses, forecasts and statistics (DAPS). The mission also met with officials from the CSE (ecological monitoring centre) and from USAID.

With the support of national consultants and staff from the Ministry of Agriculture, Animal Husbandry and Water Resources, the mission divided into two field groups and was able to cover all the regions affected by the desert locusts. Visits were made to plots sown with millet, sorghum, cowpeas, groundnut, sesame, rice and to citrus orchards. Interviews were carried out with the main regional actors at the level of each of the departments and/or districts visited, on each occasion holding detailed discussions with the various technical services in order to collect the necessary information for an assessment of the effects of the locust infestation and drought on agricultural production. Numerous interviews were also conducted at the village level with farmers, breeders, cereal and livestock traders and with the NGOs working in the field.

At the end of the mission, the preliminary results were presented to officials at the Ministry of Agriculture.

The main outcomes of the mission are as follows:

On the basis of data supplied by the various services of the Ministry of Agriculture and observations made in the field, a review of the 2004 crop season in Senegal revealed that the main natural factors that have most influenced production (to different degrees and with regional and departmental variations) are connected with:

- The phytosanitary situation, dominated by locust invasion, but also marked by exceptional infestations of habitual predators such as grasshoppers, soldier beetles and other flower-eating insects.
- The worsening of the rainfall situation in that, in a great many places, the growing season started late, there were long periods with no rain, and the rains finished early.

These factors have affected agricultural production and the pastures to different degrees, sometimes in the same way and/or only locally according to the regions or departments concerned.

The locust invasion

Of Senegal's 11 regions, 7 have been affected to varying degrees by the locust invasion. These are: in the north, the regions of Louga, Saint-Louis, Matam and, in the centre-south, the regions of Thiès, Diourbel and Fatick, as well as Dakar. The first infiltrations of swarms of desert locusts coming from Mauritania were observed in the northern border areas beginning in June 2004. Then the infestation spread following the lines from Podor to Matam and from Richard Toll Dagana to Thikité, engulfing vast stretches in the north and centre-south of the country and causing widespread damage to crops and pastures.

In the regions of Saint-Louis, Louga, Thiès and Diourbel but also in the region of Fatick (Gossas department), the mission observed crop belts that had been completely laid waste by the desert locusts. The damage was particularly bad as regards millet, black-eyed peas, sesame and, to a lesser extent, groundnut in the Fatick region.

Nevertheless, irrigated crops in the valley of the River Senegal have not as yet undergone very much damage. The main part of the rice and market-garden crops have been spared.

The large cereal production areas, generally considered to be vulnerable due to their dependence on uncertain rainfall, have not suffered from locusts either. This is particularly the case in the region of Kaolack

and, to a lesser extent, the region of Fatick where effective locust control measures were taken as soon as the insects made their first appearance.

As regards pastures, big losses due to desert locusts were recorded in the regions of Louga and Saint-Louis. However, the fodder biomass was only slightly affected in the regions of Diourbel and Matam which also suffered massive locust infestation.

Other pests affecting crops

In a great many places in the centre-south, particularly in the regions of Fatick and Kaolack, the endemic pests such as grasshoppers, soldier beetles and other flower-eating insects caused much greater damage this year than in previous seasons, aggravating the situation in areas already affected by the desert locust, in particular in the departments of Fatick and Gossas (Fatick region). The worst infestations of these predators were linked to the fact that the plant protection measures were centred on locust control.

Effects of the rainfall situation on crops and pastures

In some areas, the damage caused by grasshoppers and other predators has compounded the harmful effects of the late start to the growing season, dry spells, the early end of the last rains on planted areas, crop development and yields. Therefore the erratic start to the rainy season combined with the ravages of the grasshoppers meant that re-planting was necessary in a good many places, in particular in the regions of Louga, Saint-Louis, Thiès, Diourbel and Fatick.

In the pastoral zones of the north and centre-north of the country (in particular in the regions of Saint-Louis and Louga), the pastures also suffered from a worsening of the rainfall situation. This caused the grass to dry out, grass which had, in some places, already been attacked by desert locusts. This means that there will be a severe shortage of fodder biomass in some places in these pastoral and agri-pastoral zones. In November 2004 the Ecological Monitoring Service and the Animal Husbandry Department will run a survey on the available biomass to obtain a quantitative estimate of the carrying capacity of these natural pastures.

The rainfall deficit also affected water courses, and ponds were insufficiently filled. In places (for example in the locality of Ziguinchor) recession crops were not possible and nor was transplanting of the rice crop because of the low level of the water courses. In the same way, the drying out of the ponds hindered the market-gardening season and caused shortages in livestock drinking water.

Production estimate and provisional cereal balance

Overall, estimates of total cereal production for the 2004 season, amounting to some 1 132 700 tonnes, are clearly down (by 22 percent) compared with the previous season, but are still close to the average for the last five years. As regards consumption requirements, and given the extra off-season production estimated at about 52 366 tonnes, stocks and planned imports, the provisional net cereal deficit for 2004/2005 is about 878 330 tonnes. The deficit could be made good by commercial imports of rice and wheat, and by a forecast 6 780 tonnes of rice in aid. The forecast commercial imports of rice and wheat are higher than this level.

The downturn in cereal production, particularly for millet, is explained principally by a reduction in the growing areas to the benefit of groundnut in particular. In fact in 2004 groundnut benefited from State support in the form of subsidized seeds and fertilizers, leading to an increase of about 30 percent in growing areas and there will be a corresponding increase in production, particularly in the groundnut regions of Kaolack and Fatick.

Other crops such as maize and cassava have also expanded remarkably as a result of special government programmes supporting production and crop diversification.

The strong return of the groundnut and the good results of the maize and cassava crops should, at the national level and for the households directly involved, largely compensate for the drop in millet production.

Pockets of vulnerability and adaptation strategies for the populations concerned

The above-mentioned fall in cereal production is by no means considerable nor unusual at the national level since the regions attacked by the locusts and/or hit hard by drought only account for 20 percent of national cereal production. However these regions, in particular Thiès, Diourbel, Louga, Saint-Louis, Matam and, to a certain extent, Fatick (Gossas department) are considered to be at high risk of food insecurity in 2004. In fact these regions have a structural cereal deficit which will worsen in 2004/2005. As the mission observed, the

anticipated shortage of millet on the markets of Thiès, Diourbel, Fatick (Gossas) and even Kaolack (Nioro) has been pushing up millet prices since September 2004. It is feared that the food situation of vulnerable households will be further endangered if this trend continues.

Moreover, the increased scarcity of pastures in the Louga and Saint-Louis regions has not only led to the sale of livestock, mainly horses and small ruminants, at very low prices compared with the previous three months, but also to the early start of transhumance towards areas where the harvests are still standing which could lead to often bloody fighting between livestock breeders and settled farmers. Appropriate palliative measures are necessary, including the rapid organization of transhumance corridors and the start-up of a livestock health programme, as well as the sale of fodder at reasonable prices.

We can see that in the most affected regions, in terms of family resources, rainfed agriculture comes after livestock breeding, remittances from migrants, and irrigated crops. Nevertheless, in these regions, the rural families for whom rainfed agriculture constitutes the main, and often the only, source of revenue, are going to find themselves in difficulties. This means that there will be pockets of vulnerability and so correct targeting by means of specific surveys will be necessary. Some regions are already planning to do this.

In the meantime, the families whose livelihoods have been further damaged by the situation described above, are reacting by bringing forward the seasonal migration and transhumance of livestock, by selling some of their animals as indicated previously, or by attempting off-season market gardening, and by actively seeking income-generating activities.

The mission estimated that about 124 300 vulnerable households, i.e. 20 percent of rural households need emergency agricultural assistance. The households worst affected by the desert locust, drought and other problems are located in Diourbel, Thiès, Fatick, Saint Louis, Louga, Podor and Matam.

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