

## TRIP REPORT: NORTHERN NIGERIA Joint Food Supply Assessment Mission

November 2006

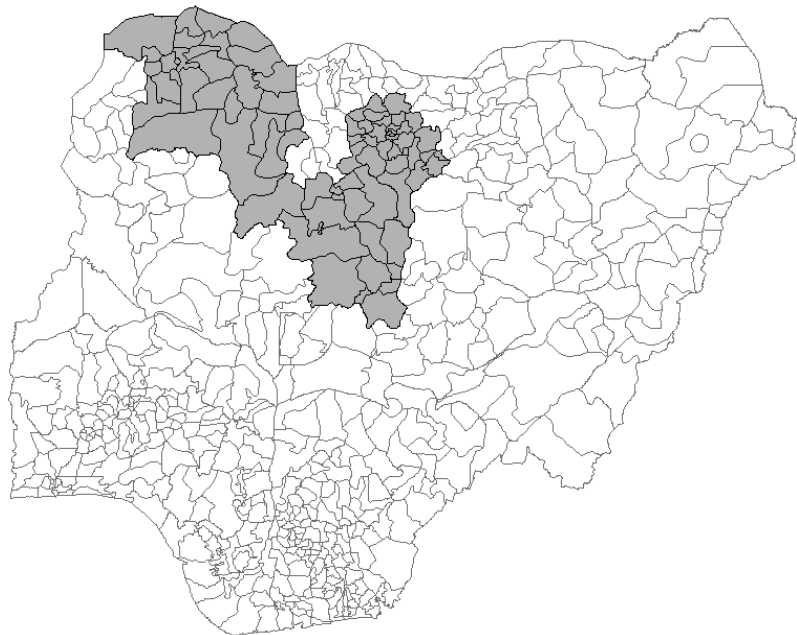
### Summary

Every year, major stakeholders in Sahelian countries carry out a post-harvest crop assessment mission to assess food production and prevailing food security conditions, as well as the household impact of those conditions. The traditional CILSS/FAO mission, undertaken in conjunction with FEWS NET, focuses primarily on countries sharing food security concerns. Considering the major role Nigeria and other coastal West African countries play in markets, goods and cereals supplies to Sahelian countries, the assessment team conducted a complementary crop assessment mission in northern Nigeria.

The first joint FAO/CILSS/FEWS NET crop assessment mission to Nigeria analyzed food production and trade systems and made recommendations to assist the Government of Nigeria (GoN) to better manage food output and improve cross-border trade. The seven-day mission to Nigeria's southern capital Abuja and the northern Nigerian states of Kano, Sokoto and Kaduna (Figure 1) included consultations with Nigerian government officials, government institutions and non-governmental organizations.

The first part of this report summarizes the findings and recommendations of the joint mission, and the second part analyzes food production, food security and the nutritional situation in Nigeria.

**Figure 1.** Nigeria: Joint food supply mission assessed areas



Source: FEWS NET

### Key findings

#### Crop production

The rainy season started in northern Nigeria in April and became widespread by May. In southern Nigeria rainfall commenced in January, except in Osun, Ogun, Bayelsa and Enugu states. By March, rainfall was abundant and well distributed in all southern states except Ogun and Osun.

Crop production in Nigeria is highly dependent on agricultural inputs, especially fertilizer and seeds. Because the timely provision of these inputs is critical to crop productivity in the country, the GoN has increased its provision of production inputs over the past two years. These interventions, coupled with good rainfall and pest control measures, led to crop production in northern Nigeria that was higher in 2006 than 2005 for millet, maize, sorghum, rice, groundnut and cassava, both in terms of output and cultivated area (Figure 2).

This increased production led to a surplus of cereals and fully supplied grain markets. The excess supply, coupled with low demand, is driving commodity prices down and traders are finding it difficult to dispose of inventories. Drastic drops in prices and losses due to lack of storage space and post-harvest inefficiencies have led the GoN to initiate improvements in the country's capacity to store cereals, cash crops and tubers.

**Figure 2.** Staple crop production in Nigeria 2004-2006

Crops	2004	2005	2006	percent change (2006/05)
maize	5,567	5,957	6,404	7.50
millet	6,699	7,168	7,705	7.49
sorghum	8,578	9,178	9,866	7.50
rice	3,334	3,567	3,924	10.01
<b>total cereal</b>	<b>24,178</b>	<b>25,870</b>	<b>27,899</b>	<b>7.84</b>
groundnut	3,250	3,478	3,825	9.98
cowpea	2,631	2,815	N/A	N/A
cassava	38,845	41,565	45,721	10.00

Source: FMARD

### Poultry, meat and fishing industries

Recovery from avian influenza in Nigeria remains slow. The adverse economic impacts of the crisis on the poultry industry and on maize production – as maize is a primary component of poultry feed – persist despite resumed poultry consumption and increased demand for poultry and poultry products.

Nigeria absorbs about 97 percent of Niger's livestock exports. The enormous demand for livestock in the major cities of southern Nigeria constitutes the driving force for this market.

Fishing represents a potentially important economic sector in Nigeria. The GoN has created a presidential initiative on fisheries development to boost food security and diversify livelihoods through fish resources. There is a need, however, to fully evaluate the impact of conflicts and environmental degradation on food production, fisheries and sustainable livelihoods in southern Nigeria, particularly in the Niger Delta region where fishery initiatives are most feasible.

### Current nutrition situation

The major nutritional challenges facing Nigeria, especially for children under five, include protein energy malnutrition, Vitamin A deficiencies, iron deficiency anemia and iodine deficiency disorders. Despite improved food supply, high malnutrition rates persist. Current FAO estimates (2006) indicate a 38.5 percent prevalence for stunting and a 9.3 percent prevalence for wasting.

## Recommendations

The mission team recommends that:

- The GoN provide incentives for smallholder farmers to use government-constructed storage silos for surplus production. These silos will help store excess production and mitigate post-harvest losses.
- State governments purchase excess market cereals to maintain buffer stocks reduce market surpluses.
- Partners continue to support GoN efforts to harmonize agricultural data – such as the national effort to institutionalize a food information system that better identifies surpluses and deficits. There is a dearth of accurate and reliable agricultural information in Nigeria, and different sources collect data using different

methodologies, limiting their use in aggregate regional or national analysis. Initiatives such as the food information system should also continuously monitor the cropping season and provide accurate estimates of production, demand and supply.

- Cross-border trade be encouraged through regular consultations and exchanges of information with neighboring countries.
- Other development partners support the USAID-funded Market Information System of West Africa (MISTOWA).
- Farmers sell their produce as cooperatives to gain a competitive edge and obtain higher prices for their produce.
- Agricultural Development Programs (ADPs) have at least three functional meteorological stations per state. The GoN also needs to ensure that ADPs have appropriate equipment and personnel to capture the information needed and improve record-keeping procedures.
- The GoN and its partners conduct an annual joint assessment to evaluate the impact of current production incentive programs for livestock, fish and agriculture on productivity, markets and trade.
- The GoN fully evaluate the impact of conflicts and environmental degradation on food production, fisheries and sustainable livelihoods in areas of southern Nigeria where new fishery initiatives are most likely.

## Analysis of Food Production, Food Security, and Nutrition

### Food production

Rainfall distribution and quantity in most states of Nigeria was satisfactory during the 2006 agricultural season. This, coupled with the GoN's provision of agricultural inputs, contributed to a substantial increase in cereal and tuber outputs in 2006.

In the northern part of the country, rainfall commenced in April and became widespread by May. A 14 to 45 day dry spell followed in states located in the northeast, northwest and central zones of the country, causing localized crop losses and necessitating replanting of millet, maize, watermelon and cowpea in the northeast and north-central zones. Rainfall quantity and distribution improved in most states from July to October.

In southern Nigeria, rainfall commenced in January and was abundant by March, except in Osun, Ogun, Bayelsa and Enugu states. Rains were well distributed in all southern states except Ogun and Osun. Good rainfall favored the production of key southern Nigerian crops such as cassava, yam and plantain, as well as cereals such as maize and rice. Cassava is the most widely cultivated food and cash crop in southern Nigeria, a zone that accounts for 64 percent of cassava production in the country.

Collected data reveals that the production of millet, maize, sorghum, groundnut and cowpea in Northern Nigeria was higher in 2006 than in 2005, both in terms of output and cultivated area (Figure 2). The Federal Ministry of Agriculture and Rural Development (FMARD) estimates 2006 cereal production at 27.9 million MT, about 8 percent higher than 2005. Production of groundnut also increased significantly. 2006 production estimates for cowpea are not yet available, though they, too, are expected to have increased from 2005 production levels.

Farmers reported rice locust infestations in Kebbi state, and grasshoppers damaged millet and sorghum crops in Adamawa state. In Yobe, Adamawa, Bauchi, Kaduna, Zamfara, Kebbi, Borno, Katsina and Kano states, stem borers caused limited damage to millet, sorghum and maize crops. Nigerian governmental services and the International Institute of Tropical Agriculture (IITA) undertook a joint intervention to contain Cassava Mosaic Disease, which threatened the production of cassava in the southern part of the country. Nationwide, government provision of subsidized agro chemicals to farmers helped control pest spreads and minimized their effect on yield.

Production in Nigeria is highly dependent on agricultural inputs, especially fertilizer and seeds. The timely provision of these inputs is critical to crop productivity in the country, and household access to fertilizer varies widely between states. In order to boost production, the GoN developed a fertilizer subsidies program. In 2006, the GoN set a benchmark to procure 258,000 MT of fertilizers – compared to 156,000 MT in 2005 – and distribute them at a 25 percent subsidy. As of August 2006, about 92,000 MT of fertilizers had been distributed.

Programs designed to encourage the production of select commodities such as rice, vegetable oil and cassava have led to import prohibitions for some staples and high tariffs for others. The distribution of NERICA rice seed, an improved rice seed variety, has contributed to better rice production. And, through the “Doubling Maize Production” program, farmers have shifted from sorghum and millet production to maize in some northern and central states.

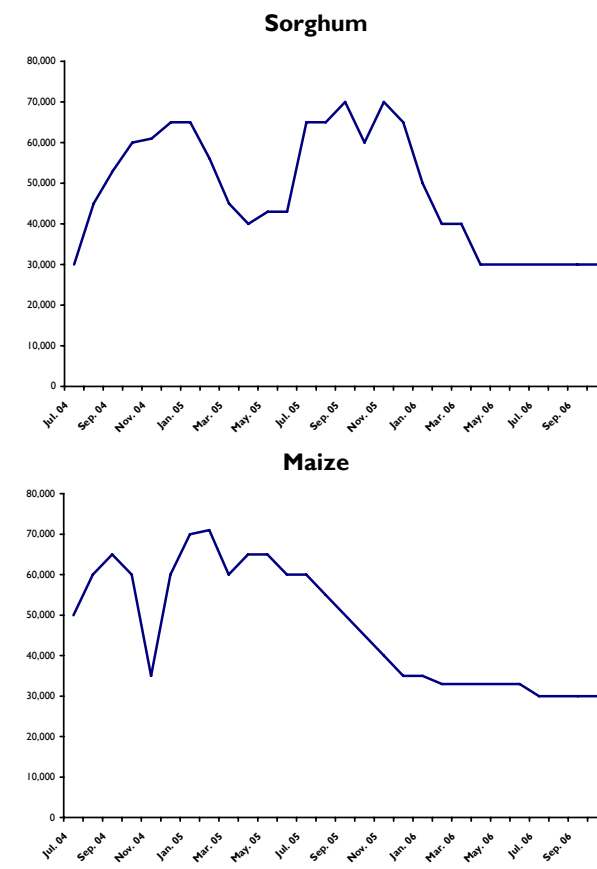
Recurrent production surpluses have led to a drastic decrease in prices and, due to a lack of storage space and post-harvest inefficiencies, an increase in post-harvest losses. In response, the GoN is building storage facilities at the federal, state and local levels to improve the country’s storage capacity. At the federal level this year, FMARD ordered 51,000 MT of maize, sorghum and millet, of which 12,259 MT have been delivered, to be stored in 12 silos. At the state level, the GoN anticipates states will purchase 10 percent of local production for storage. The GoN also encourages states to maintain a buffer stock of 10,000 MT each. At the local level, many farmers noted difficulty selling their grain harvests. FMARD officials informed the mission that one million one-ton metal storage bins would be constructed and sold to farmers at subsidized rates to help reduce post-harvest losses. This tiered intervention is designed to help prevent price collapses during surplus years, and allow farmers to store and sell their produce when prices are higher.

Market considerations influence types and quantities of crops grown. The mission visited the Dawanu International Grain Market in Kano - one of the most important markets in Africa - where participants discussed market conditions with major stakeholders. As a result of surplus cereal production for maize, millet and sorghum in northern Nigeria, grain markets are fully supplied. The excess supply, coupled with low demand, is driving the prices of commodities down (Figure 3) and traders are finding it difficult to dispose of their inventories. This year’s excess production of maize, millet, cassava and sorghum is being stored, adding to last’s year’s unsold stock. Demand from national buyers and neighboring countries such as Niger, Mali, Cameroon and Chad also remains low following a good production year in these countries.

The favorable output of the 2006 agricultural season in neighboring Sahelian countries has decreased trade and lowered demand for cereals and cash crops from Nigeria, thus reinforcing the downward trend in prices. A collapse in price may be a disincentive for maintaining or exceeding current levels of production in the coming years in Nigeria, which could result in lower trade levels with other countries. A potential decrease in Nigerian production will negatively impact poor households in countries dependent upon the import of Nigerian cereal stocks.

The major food trading partners of Nigeria are Niger, Chad, Cameroon, Mali and Ghana. Traders from Niger, Chad and Ghana primarily supply Dawanu market with cowpea. Nigerian traders then buy almost every commodity in the Nigerian markets to sell in Niger. Malians tend to buy pepper and tamarind (a plant used to produce juice).

**Figure 3. Cereal price fluctuations in Nigeria from 2004-06 (Naira/MT)**



Source: FEWS NET

### Impacts of Avian Influenza

Following the avian influenza outbreak in Nigeria in January 2005, government services and their partners have taken measures to control and prevent the spread of the disease. Recovery remains slow, however, and the adverse economic impact of the crisis on the poultry and maize industries – as maize is a key component of poultry feed – persists despite increased consumption of and demand for poultry products. Poultry farmers, whose shops closed following the outbreak, remain reluctant to return to the business. The GoN is currently promoting a program to double maize production, both for national consumption purposes and for international export.

### Livestock and fish production

Livestock production is largely based on small ruminants in southern Nigeria, with increasing pockets of organized cattle ranches in densely populated areas such as Cross River State. The Katsina, Kano and Maradi trading region between Nigeria (Katsina and Kano) and Niger (Maradi) remains the most important area for the supply and sale of livestock in Nigeria, which absorbs about 97 percent of Niger's livestock exports. The enormous demand for livestock in the major cities of southern Nigeria constitutes the driving force for this market. Estimates indicate that 80-90 percent of cattle imported from Niger are destined for major cities in southern Nigeria, with Lagos absorbing the largest share.

The GoN's presidential initiative on fishery development is aimed at boosting the contribution of fish resources to food security and livelihoods in Nigeria. The target is to increase domestic fish production to two million MT by 2007. There is a need to fully explore the fishing potential of Nigeria, taking into consideration the impact of conflicts and environmental degradation on food production and sustainable livelihoods in southern Nigeria. Such analysis is especially important in the Niger Delta region, where the availability of water resources, environmental conditions conducive to fish production, and the already high consumption of fish make such an initiative particularly feasible.

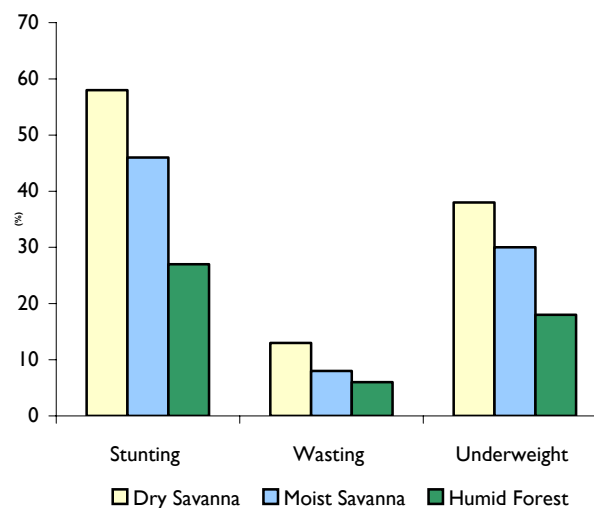
### Nutrition

The major nutritional challenges facing Nigeria – especially in children under five – include Vitamin A deficiencies, iron deficiency anemia and iodine deficiency disorders. The prevalence of these micronutrient deficiencies is about 30 percent, with no indication of a substantial reduction over time. High protein energy malnutrition rates also persist, with current FAO estimates (2006) indicating a stunting prevalence of 38.5 percent and a wasting prevalence of 9.3 percent.

The continued high rates of child malnutrition exist despite improved food supplies. The overall proportion of undernourished people in Nigeria has increased from 8.9 percent in 1997 to 11.5 in 2004 (FAO, 2006) while per capita dietary energy consumption (kcal/person/day) increased from 2,540 in 1992 to 2,720 in 2004 (FAO, 2006). Maternal, child and infant mortality rates in Nigeria remain among the highest in the world, with malnutrition accounting for over 60 percent of mortality.

Significant variations in nutritional status exist by agricultural, ecological and geographic zone. The prevalence of stunted, wasted and underweight children is highest in the dry savanna states of northern Nigeria (Borno, Kano and Kebbi states), followed by the moist savanna zone (Nasarawa, Kaduna and Kwara states). Prevalence of stunted, wasted and underweight children is substantially lower in the humid forest zone of southern Nigeria (Edo, Imo, Akwa-Ibom and Bayelsa states) (Figure 4).

**Figure 4.** Prevalence of child malnutrition by agro ecological zones in Nigeria

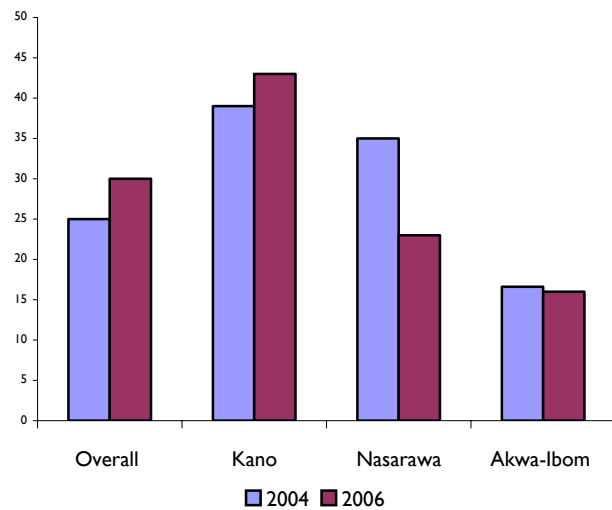


Source: IITA, 2004

The preliminary results of a 2006 Food Basket Foundation International (FBFI) baseline study in nine communities across three states show that while there was some reduction in malnutrition in Nasarawa State (moist savanna zone), it did not change in Akwa-Ibom State (humid forest zone) and increased in Kano State (dry savanna zone) (Figure 5). Severe structural deficiencies, poor infant feeding practices and poor access to and use of public health facilities and services characterize the dry and moist savanna zones more than the humid forest zones and explain the observed differences in the prevalence of malnutrition across the zones.

HIV/AIDS and its attendant erosion of human capital promises to worsen nutritional status and, despite a decrease in prevalence of the disease since 2003, remains a significant threat to overall food security in a country where over 60 percent of the population depends on agriculture for their livelihood. HIV prevalence is currently 5 percent in Nigeria, down from 5.8 percent in 2003.

**Figure 5.** Prevalence of underweight children in Kano, Nasarawa and Akwa-Ibom states



Source: FBFI, 2006

Since 2005, the GoN has distributed several rounds of vitamin A supplements and enforced mandatory vitamin A fortification of flour and vegetable oil. The government also estimates that their programs have iodized more than 90 percent of available salts. The GoN is further piloting its own school-feeding program in several states, and is working to create a supportive policy environment for improved national food security and nutrition. The GoN has signed a national policy on food and nutrition and has developed a national plan of action for nutrition.