



**Regional Seminar on the Development of Cereal Commodity Chains in West Africa**

**Nigeria's Cereal Economy**

**Thematic Paper No. 2 - Summary**

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1. Nigeria is undeniably the largest sub-regional power in West Africa. With the size of its population (approximately 150 million inhabitants in 2009) and its economy (more than 50% of West Africa's total GDP), the Nigerian Federation supersedes all other countries in the region, in all areas. Despite the serious crisis it underwent in the 1980s and 1990s (Dutch disease), Nigerian agriculture is the largest producer in the sub-region for nearly all enterprises (excluding coffee, cocoa, palm oil, cotton and rubber).
2. Despite the preponderant weight of hydrocarbons, which provide between 95% and 97% of export revenues depending on the year, the agricultural sector continues to play a decisive role in Nigeria's economic development. It contributes approximately 41% of the Federation's gross domestic product, and occupies nearly 45% of workers in the country.
3. While the production structure is dominated by roots and tubers (approximately 85 million tons in 2009), Nigeria's largest agricultural challenges are crystallized for the most part around cereals. Indeed, it is for this category of products that the Federation has elaborated and implemented its most controversial agricultural and trade policies. While its production revival policies stimulated most cereals to the point of making Nigeria a true food security umbrella for a large number of its neighbours, its market regulation policies appeared to defy regional integration processes.

#### ***Nigeria's Cereal Potential***

4. Nigerian cereal cropping has the same general characteristics as the country's economy—those of a giant with feet of clay. While production has leaped considerably over the past twenty-five years, demand has also risen, accentuating the Federation's dependency on foreign cereal products and making it vulnerable to internal and external shocks.
5. Like nearly all West African countries, the increase in cereal production is due more to an increase in the amount of land sowed with cereals than to any significant improvement in yields. According to the Central Bank of Nigeria's statistics, the land devoted to growing cereals increased by 5% between 1990 and 2000, compared to an increase of 3% in average yields. The yield level is pulled upwards by tubers and roots, but the situation is highly variable for cereals.
6. The yields for millet and sorghum, which account for 50% of production volume, either stagnated (in sorghum's case) or increased very slowly, placing average yields for these two cereals at approximately 1,000 kg/ha over the 2000-2006 period. Production of these two cereals increased by a factor of 3.8 and 3.4 respectively between 1980 and 2008.
7. Rice and maize stand apart from the other cereals, with yields of approximately 2,000 kg/ha. However, while maize yields rose from some 1,000 kg/ha at the start of the 1990s to approximately 2,000 kg/ha in 2006, rice yields have stagnated at around 2,000 kg/ha since 1990. Because of this, maize has performed the best and become the Federation's second largest cereal crop with a production volume that rose from 1,100,000 tons in 1980 to more than seven million tons in 2007-2008. Rice's production volume increased by a factor of 3.4 between 1980 and 2008, reaching about 3.7 million tons of paddy.
8. Wheat production is holding steady at about 100,000 tons per year, despite heavy investment by the federal government to promote this cereal.

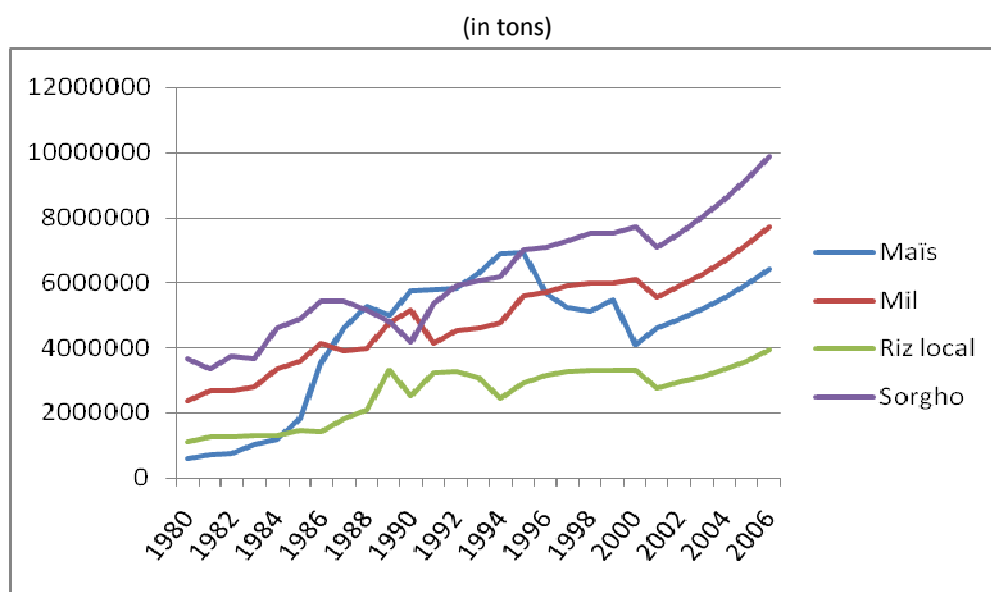
9. Despite this relative underachievement, Nigerian cereal cropping contributes 50% to 60% of the West African regional supply, and is unique in its vitality, in connection with:
- a. Farm structure characterized by the co-existence of large farms and small family farms, that benefit from the economy of scale generated by the size of the national and regional markets. Small farms of approximately 1.2 hectares in size remain in the majority. However, commercial farms—the average size of which is around fifty hectares although the largest can be more than 1,000 hectares in size (e.g. the immense Mokwa farm)—drive cereal production, which is increasingly mechanized.
  - b. The development of large farms owned by businessmen or high-level civil servants (sometimes retired), in part tied to the incentives and measures implemented by the green revolution and the numerous programmes launched in the 1980s and 1990s (Agricultural Development Project, FADAMA I and II, etc.).<sup>1</sup> To these domestic initiatives have been added the effects of the implantation of Zimbabwean farmers on the edge of the “middle belt.” This dynamic has above all benefited the production of maize that, since 2008, has tended to supplant all other cereals.
  - c. The evolution of the federal agricultural policy over the past two years, which has above all emphasized irrigation development and access to inputs and financing. The hydro-agricultural developments made it possible to increase the amount of irrigated land, initially destined to promote rice and wheat production.<sup>2</sup> Fertilizers have long received a federal government subsidy of 25% of their price, combined with guidance for farmers on technical itineraries and agricultural advice. This policy came with the provision of collective infrastructures, notably warehouses and primary processing facilities (mini rice mills), for many rural communities.
  - d. Production concentrated in the northern half of the country, with maize in the middle belt and millet and sorghum in the Sahel region of northern Nigeria. Rice, however, is found in its ecological basin in the states of Anambra, Kwara, Adamaoua, Niger, Sokoto, Kebbi, Borno, Bauchi, Benue and Kano.
10. The food crisis caused by the rapid rise of staple product prices helped boost agricultural production revival policies in general and cereal policies in particular. Emphasis was placed on rice and maize production, for which the Federation projects production of six million and fourteen million tons respectively by 2012. More than 500,000 tons of improved seeds have been made available to farmers in the framework of the “National Economy Empowerment Development Strategy II” programme.
11. This strategy shores up the presidential initiative on rice, and aims to promote rice production, processing and export. Since 2007, government policy has aimed to facilitate farmers’ access to production factors through a 50% subsidy on inputs and farm equipment.

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<sup>1</sup>RENOU Fabienne, 1988, *Dynamique et viabilité des grandes exploitations agricoles au Nigeria, cas d'exploitations céréalières dans quatre Etats nigériens*, end-of-study thesis, ESA Angers and IRAM.

<sup>2</sup>Many irrigation schemes have nowadays been recycled to promote off-season crops: onions, potatoes and other vegetables such as carrots.

Figure 1: Evolution of Cereal Production in Nigeria from 1980 to 2006



Source: based on FAO statistics.

### ***Demand Insufficiently Met by the Domestic Supply***

12. Beyond supply, whose overall trend is known, very little is known about the structure of the demand for cereal products in Nigeria. Indeed, demand is strongly influenced by several factors and divided between domestic needs and solicitations from neighbouring countries.
13. Domestic demand is rising under the effects of population growth, urbanization (among the highest in the region), people's improving living conditions, the needs of a growing processing industry (notably breweries), and stock farming. However, it is still dominated by human consumption, which accounts for 80% of federal availabilities. It is followed by the demand from the agrifood industry (12%) and biofuels (5%), with the remainder (approximately 3%) going to unspecified uses, very probably destined for export to neighbouring countries. These proportions can vary considerably depending on the economic situation. The share consumed by animals is rising whereas demand from industry seems to be dropping in connection with the energy crisis that is forcing most plants to run below installed capacity.
14. Nigeria still has a structural deficit in regard to two cereals: rice and wheat flour. The domestic rice demand has been five million tons per year since 2008, compared to a domestic supply of milled rice estimated at 2.3 million tons. The gap of 2.7 million tons is covered by imports, making Nigeria the second largest rice importer in the world, after the Philippines. At the current pace of production growth, the Federation will probably not be able to attain rice self-sufficiency in the short term.
15. For millet and sorghum, however, the country produces a considerable surplus that supplies transactions with neighbouring countries. The maize situation is less clear-cut and depends heavily on the level of demand from agrifood industries. With the exception of rice, the largest economic stakes have to do with this cereal.

### ***Nigerian Cereal Market Regulation***

16. Since the second oil shock in 1979, Nigeria has adopted a protectionist policy aiming to limit the import of a certain number of goods so as to reduce its huge budget deficit, improve the security of investments in productive sectors, and revive agricultural production.
17. Two very important measures, among other strategies aiming to regulate the food and cereal product market, have been adopted. Domestic measures include:
  - a. The creation of a buffer stock equivalent to 5% of the national supply of millet, sorghum and maize. This stock is supposed to be injected into the market to mitigate, when necessary, price instability, price volatility or even sharp rises in prices for food products. It is a decentralized stock in certain federal states.
  - b. Limiting the volume of wheat flour imported, by including bread-making quality cassava flour in bread production. The bread currently made in Nigeria incorporates between 15% and 20% cassava flour.
18. However, it was in regard to border measures that Nigeria's trade policy revealed itself most coercive initially before progressively adopting a logic of abolition of customs tariffs. For instance:
  - a. In 1987, the federal government imposed a ban on rice, wheat and wheat flour imports while simultaneously introducing budgetary, fiscal and monetary reforms, notably the adoption of a double exchange rate and restrictions on currency allocation.
  - b. Under pressure from its trade partners, Nigeria progressively relaxed these measures. In this way, the ban on wheat and wheat flour was lifted in 1992.
  - c. In regard to rice, the ban was replaced in 1992 by a prohibitive protection tariff of 150% until 2000. Between 2000 and 2003, this protection tariff was lowered to 100%, before being cut to 50% between 2003 and 2008. In 2008 and 2009, Nigeria temporarily eliminated customs duties on rice to mitigate the effects of the sharp price hike on staple products.
  - d. Nigeria made efforts, in the prospect of the creation of the ECOWAS customs union, to obtain a high rate of protection for rice, a cereal whose huge potential the country hopes to exploit as much as possible to attain self-sufficiency.
19. In addition to these almost permanent measures, Nigeria occasionally bans cereal exports to its neighbours.

### ***Controversial Regional Control***

20. Cereal transactions undoubtedly occupy third place in the commercial trade between Nigeria and its immediate neighbours; hydrocarbon smuggling and the livestock trade take first and second place.
21. The impacts of the protection policy implemented by Nigeria are very mixed. It had consequences that were contrary to the objectives targeted by the government authorities. The most unwanted effect is an increase in rice—and to a lesser extent wheat flour—

smuggling from the neighbouring countries of Cameroon, Niger and Benin. The volume of rice re-exported by Benin to Nigeria varies from 300,000 tons in 1987 to 550,000 tons in 2008.

22. Nigerian cereal exports—maize, millet and sorghum—deal with large quantities, a large portion of which does not figure in official statistics. These exports, destined primarily for Chad and especially Niger, play an important role in food security. The food crisis that shook Niger in 2004-2005 revealed just how dependent the country is on Nigeria for its supply, the volume of which is estimated at between 100,000 and 300,000 tons per year. It also showed that, although in deficit, Niger exports dry cereals to Nigeria at certain periods.
23. The cereal market is animated by a multitude of actors that range from small farmers near local government collection centres (local governments run the rural markets) to large traders who are often structured in networks and operate in regional trade centres such as Kano. This city, with its large market (Dawanu), is the largest regional cereal trade centre, with a private storage capacity estimated at more than 500,000 tons.
24. Economic operators are sometimes organized in pyramidal networks with offshoots in neighbouring countries. This is notably the case of the Hausa networks on both sides of the borders with Niger, Cameroon and Chad.

### ***Prospects***

25. During the coming years, Nigeria will undoubtedly play a decisive role in the regional agricultural market and in particular the cereal product market. The strategies implemented to revive agricultural production and cereals, notably rice and maize, will re-affirm the Federation's already dominant position in the regional market.
26. The strategies contained in NEED-II and widely copied in the National Agricultural Investment Plan provide for (i) the renovation and expansion of the existing irrigation system, (ii) facilitation of farmers' access to land, (iii) assurances of a high level of productivity through the elaboration and adoption of appropriate technologies, and (iv) the promotion of a new generation of farmers.
27. The strategy primarily includes a strong commitment by the private sector, notably commercial banks, alongside agricultural producers in general and cereal farmers in particular: participation in crop year financing operations, various forms of insurance, etc.
28. Finally, the creation of the ECOWAS common market is an opportunity to expand outlets for Nigerian cereal products, notably maize where the Federation is making the largest strides in productivity.