Innovation Lab for Food Security Policy

Nigeria Agricultural Policy Project

Promoting Rice Productivity in Niger State: Linking Data and Policy

Mohammed Musa and Alhassan Umar

Introduction and Background of Niger State

Niger State is located in the Central zone of Nigeria and is named after the River Niger. The state is home to 2 of Nigeria's major hydroelectric power stations at the Kainji and the Shiroro dams. Niger State shares boundaries with a number of other states; Benin to the West, Zamfara to the North, Kogi to the South, Kwara to the South West, and the Federal Capital Territory to the South-East (Niger State Vision 2020).

Figure 1: Map of Niger State Showing Local Government Areas
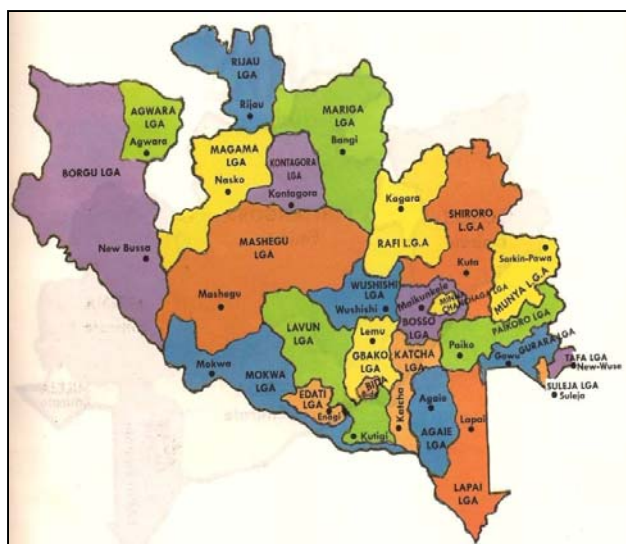
Source: Niger State Bureau of Statistics (2012)

Key Messages

- The government of Niger State is currently stimulating the agricultural sector through large scale rice farming to help meet local and export demands.
- The highest yield of 3.11 MT/ha in 2009, over the period (2006-2015) was well above the national average.
- The significant decline in yield observed between 2009 and 2011 could be the result of untimely disbursement of inputs and cases of flooding.

One of the largest states in the country, Niger State has a landmass of 76,363 km². It has a projected population of 4,687,610 people (based on the 2006 national census) (NBS, 2012). The state is divided into 25 Local Government Areas (as shown in Figure 1) with its administrative capital in Minna. Soil types in the state range from the shallow soils around the rocky landscapes to deep soils of the valleys. The deeper soils, representing the alluvial type even though complex in appearance have exceptional potential for rain fed and irrigated farming (NSBS 2012; Merem et. al., 2017).

Niger State is endowed with fertile agricultural land and has the capacity to produce most Nigerian staple foods (including rice, maize, sorghum, soybean, groundnut, yam, pepper, tomatoes) and livestock

(such as goat, poultry, cattle and sheep). In addition, the state is popular for its brass work, located primarily in the town of Bida. It is also known for pottery, weaving and several cottage industries which can be found throughout the state. Niger State is inhabited by 3 main ethnic groups: Nupe, Gbagi (Gwari) and Hausa. Less prominent ethnic groups in the state include: Kamberi, Kamuku, Gade, Pangu and Ingwai (NSN, 2013).

Rice Production in Niger State

Rice is a priority crop of the Niger State government. The state is one of the leading rice producers in Nigeria and has the capacity to be a major national hub for rice production. This is demonstrated by the significant levels of production and yield recorded in 2006-2009 (Figures 2 and 4) which were well above the national average. Several factors including the temperature and rich natural resources endowment of fertile alluvial soils contribute to explaining these higher yield levels (NSN, 2013).There is therefore justification for the important attention given to rice production in the state.

Figure 2: Rice Production in Niger State ('000 MT).
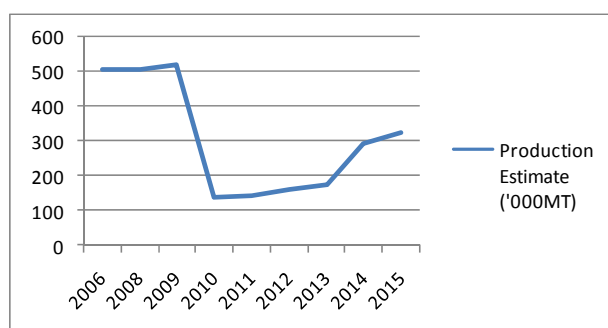
Source: *Agricultural Production Survey Data (NAERLS)*

Government Program for Rice Production

The Niger State Agricultural Development Project (NSADP) which is an extension unit of the Niger State Ministry of Agriculture and Rural Development is saddled with the responsibility to implement the agricultural policy decisions of government. The focus of such policies is to enhance the living standard of farmers through increased agricultural productivity by provision of basic agricultural infrastructures (roads, markets, dams, irrigation facilities etc.), development and distribution of improved planting materials, provision of agricultural research and extension services, monitoring and evaluating the impact of the project activities and capacity building of rural institutions through linkage to credit institutions, farm input supply and agricultural markets. (NSDP, 2014; Niger State Vision 2020)

Specifically, for rice production in the state, the government has a commitment to stimulate the agricultural sector through large scale rice farming to meet local and export needs. In actualizing this mandate, the state in partnership with the Federal government, donor agencies, and private corporations launched several programs to enhance the productivity of rice farmers. Some of these programs are: National Program for Food Security (launched in 2007); Niger State Commercial Agriculture Credit Scheme (NSCACS) launched in 2010; Rice Post-Harvest and Marketing Pilot Project (RIPMAPP) launched in 2011; Maximizing Agricultural Revenue in Key Enterprises and Targeted Sites (MARKETSII) launched in 2013; West Africa Agricultural Productivity Program (WAAPP) launched in 2013; the Korea International Cooperation Agency (KOICA), and Modern Rice Processing Complex Project. These projects are targeted at enhancing the production capacity of farmers through training, good agronomic practices and the provision of improved planting materials (NSDP, 2014)

Descriptive Statistics of Rice Production

The trends for the production level and area of land cultivated of rice in Niger State from 2006-2015 are shown in Figures 2 and 4. The graphs show that based on available data, the highest levels of production and yield were recorded from 2006-2009.

These were followed by a significant decline in production and the area cultivated (Figure 3). The developments could be attributed to rice importation, the absence of credit lines to farmers in the state, post-harvest handling, and natural factors of climatic variability and other challenges (Merem et. al., 2017).The situation changed from 2011 and there has been a steady increase in rice production and the area under cultivation.

The average rice yield between 2006 and 2015 is shown in Figure 4. Similar to production levels explained above, rice farmers in the state experienced the lowest yield of 0.88MT/ha in 2010. This followed a period that recorded the highest yield of 3.11 MT/ha, well above the national average of 1.93 MT/ha (FAO Stat, 2014). The sharp decline in yield could be the result of untimely disbursement of inputs and recorded cases of flooding in the state which resulted in the loss of farmlands.

Figure 3: Land Area of Rice Cultivated in Niger State ('000 Ha)
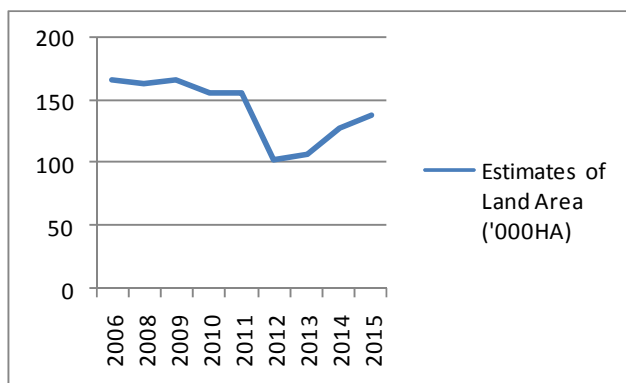
Source: *Agricultural Production Survey Data* (NAERLS)

Beyond 2011, there has been an increase in rice yield. This could be attributed in part to the positive effect of programs such as NSCACS and RIPMAPP continuing with programs such as the Growth Enhancement Support Scheme (GESS) launched in 2012 (with the aim of enhancing the delivery of

subsidized improved inputs to farmers) and the MARKETSII which was launched in 2013.

Figure 4: Rice Yield in Niger State (MT/Ha)
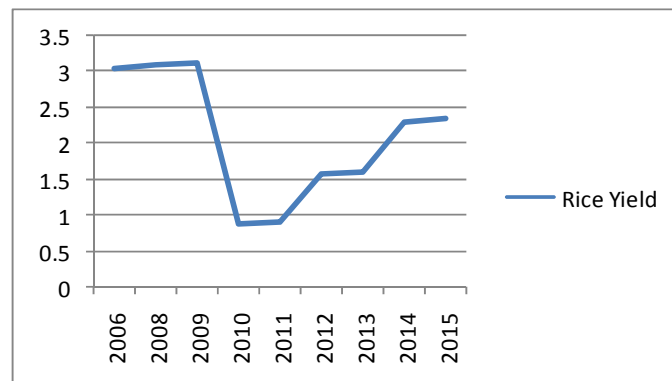
Source: *Agricultural Production Survey Data* (NAERLS)

Explaining Changes in Rice Productivity in Niger State

The initial significant levels of production and yield in Niger State recorded from 2006-2009 demonstrate the potential of the state to be a major national hub in rice production. Notable among the recent interventions to enhance rice productivity is MARKETSII which facilitated the training and management of 4000 out-growers on rice value chain for increased productivity. The project was implemented in 6 local government areas in the state and farmers had demonstrations with improved seeds (FARO 44 and FARO 52) and more efficient fertilizer application methods (NSDP, 2014).

Another program is the Sustainable Rice Value Chain Support Project launched by the Competitive African Rice Initiative. This program integrated 5000 rice farmers into sustainable and competitive business models that lead to increased paddy production. The program trained the selected rice farmers in good agricultural practices and provided improved technical packages. (Farm Fact Sheet 2016).

The impact of these programs in the supply of improved seeds and multiplications, technical support along the rice value chain as well as the rise in contract farming arrangements between farmers and off-takers

partly explain the significant gains recorded in rice productivity in the state[1].

Challenges to Rice Productivity Growth

There are several challenges that have militated against the goal of the State Government to significantly enhance productivity of rice production in the state. Key among the challenges are:

- Dilapidated irrigation schemes resulting in low capacity utilisation

- Poor storage facilities resulting in high post-harvest losses.

- Rice still processed locally resulting in low quality output that cannot compete internationally and hence marketed locally in various grades

- Inadequate access to and high costs of agricultural equipment and machineries.

Conclusion and Key Recommendations

This policy note was prepared to establish a link between available production data and the programs of the Niger State government in enhancing the productivity of rice farmers. The aim is to highlight some of the intervention programs of government in partnership with development organizations and the private sector and how they have impacted rice productivity in the state.

The information drawn from the data shows that after a significant decline in production levels and productivity of rice farmers in the state between 2009-2011 there has been a steady increase. This represents the impact of several intervention programs aimed at boosting rice production in the state.

However, to sustain the steady increase in yield of rice farmers in the state, the following recommendations could be considered:

- Pursue increased investment in irrigation agriculture to minimize dependence on rain fed farming and facilitate all year round production.

- Prioritise farmers' access to quality and affordable inputs including credit facilities.

- Facilitate more contract farming arrangements between farmers and off-takers

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[1] This is an agreement where the buyer purchases all or portions of the output produced by farmers.

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Mohammed Musa is the Director, Project Monitoring & Evaluation, Kogi State ADP.

Alhassan Umar is the Director, Planning Research & Statistics, Ministry of Agriculture, Niger State.