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## Strategic Issues on Growth in the Agricultural Sector and Reducing Poverty in Nigeria

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Designing agricultural strategies requires an understanding of the options for dealing with growth in the sector, its impact on targeted beneficiaries, and the investment required to achieve the growth. IFPRI's recent study identified agricultural growth and development options that can support comprehensive rural development in Nigeria, in line with its national agricultural strategy – the National Food Security Program – over the next nine years (2009-2017). This research highlighted five key issues to be considered when developing and updating agriculture strategies that aim to alleviate poverty through accelerated growth in the agriculture sector.

### Background

Although the Nigerian economy has recently seen relatively impressive growth with an average annual growth of 7.3 percent from 2000 to 2007, poverty is still a challenge in the country's development efforts. The national poverty rate was 54 percent, or 69 million people living below the poverty line that is about 1\$ a day, in 2004, which was reduced from its highest level in the early 1990s, but was still two times higher than the poverty rate in 1980 (NBS 2005). While economic growth is necessary for the country's development, it does not automatically impact poverty reduction.

The good news is that a key driver of the recent growth in Nigeria has been agriculture. Between 1990 and 2006, the sector accounted for 47 percent of national growth. Agriculture is not only the most important non-oil economic activity in Nigeria, it is also Nigeria's largest employer, providing employment opportunities to 70 percent of the labor force in 2006 (NBS 2006). Thus, the agricultural sector is important for reducing poverty (Agenor et al. 2004).

Recognizing this importance, the Nigerian government has initiated and endorsed many national and international projects, programs, and policies aimed at rapid agricultural growth for food security and poverty reduction. These include the *National Economic Empowerment and Development Strategies (NEEDS I and NEEDS II)*, the implementation of the *Comprehensive Africa Agriculture Development Program (CAADP)*, the *National Food Security Program (NFSP)*, and the *Agriculture 5-Point Agenda*, among others. Despite these accomplishments, further efforts are needed to lift more people out of poverty and to meet the first Millennium Development Goal (MDG1) of halving the proportion of people who live on less than one dollar a day. To support these efforts, this research emphasizes five key issues in the nation's agricultural strategy.

### Strategic Message for Developing Nigeria's Agricultural Strategies

#### *Make growth targets realistic*

Growth targets at the agricultural subsector level must realistically take into account both initial

conditions and growth potential, not growth potential alone. This is a necessary first step of an agricultural development strategy. Furthermore, since increasing agricultural production through land expansion will be costly and unlikely to be sustainable, growth targets should be productivity driven.

### **Encourage growth of large agricultural subsectors for the greatest economy-wide impact**

Four key factors are important for prioritizing agricultural growth at the subsector level. They are 1) the size of an individual subsector in the agricultural economy (share in agricultural GDP), 2) the linkage effect of a subsector to the rest of the economy (growth multiplier), 3) the effectiveness of overall growth led by this subsector in poverty reduction, and 4) the market opportunities and price effects of this subsector's growth (Table 1).

**Table 1. Factors for prioritizing agricultural growth**

	Size in the economy		Growth multiplier		Pro-poorness		Negative price effect		Opportunities
	Qualitative assessment	Ranking	Qualitative assessment	Ranking	Qualitative assessment	Ranking	Qualitative assessment	Ranking	
Growth led by:									
Cereals	Large	2	Large	3	Large	1			
Rice	Large	4	Large	8	Large	2	Small	7	Import substitutable
Maize	Large	7	Large	5	Large	5	Large	2	Feed industry development
Millet/sorghum	Large	5	Large	1	Large	3	Small	6	Food processing
Wheat	Small	13	Small	9	Large	11	Large	1	Import substitutable
Roots	Large	1	Large	6	Large	3			
Cassava	Large	3	Large	4	Large	7	Small	5	Exports through processing
Pulses	Large	6	Large	2	Large	8			Domestic processing and exports
Export-oriented crops	Small	9	Small	10	Small	12	Small	9	Scale up the size
Livestock	Small	8	Not measured		Large	9			
Poultry	Small	12	Not measured		Not measured		Large	3	Competitiveness and exports
Fishery	Large	10	Large	7	Large	6	Large	4	Food processing
Forestry	Small	11	Not measured		Large	10	Small	8	Wood processing

Diao et al. 2009

### **Take linkages into account**

An agricultural subsector with strong linkages to the rest of the economy can generate more gains in the economy than a subsector with weak linkages. Subsectors such as cassava or poultry, for example that can stimulate domestic demand, either through agro-processing or through generating income to a majority of farmers often have a stronger effect on overall growth than one that is only exported as primary materials. Table 2 illustrates that cereals currently contribute 25.9 percent to Nigeria agriculture GDP, but with 9.5 percent annual growth in cereal, cereals could contribute 30.9 percent to agriculture GDP.

While a very high growth goal for a small subsector can be set, the economy-wide impact of this subsector's growth is often small. Growth in a relatively large subsector generally creates more growth for the economy as a whole. The analysis of the modeling simulations shows that even with double-digit growth in a small subsector, such as wheat or sugar, their growth contribution in the overall agricultural or whole economy could be insignificant, if any at all. On the other hand, a large agricultural subsector, such as rice or cassava, can create more growth in the whole economy if such sectors can become the leading force in the growth process.

**Table 2. Subsectors' contribution to agricultural CAADP growth**

	Share in AgGDP (%) 2008	Base growth rate (%) 2009-17	Additional growth required (%) 2009-17	Contribution to AgGDP growth (%) 2009-17
Cereals	25.9	5.4	4.1	30.9
Root crops	31.6	6.0	2.9	29.1
Other food crops	25.7	5.7	2.4	18.4
High-value crops	4.9	5.6	12.0	10.9
Other export crops	0.1	8.5	4.4	0.1
Livestock	6.5	5.4	1.4	2.8
Other agriculture (forestry and fisheries)	5.3	5.8	5.1	7.9

Sources: Nigeria SAM and DCGE model results. Notes: Share in the first column of the table is calculated from the new Nigerian SAM. The third column is the difference between the baseline and NPFS growth rates.

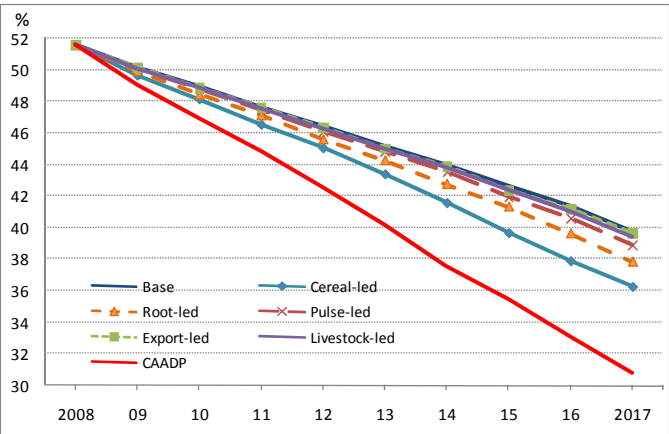
**Support agriculture growth with pro-agriculture investments and interventions**

Growth is not only determined by the productivity of a targeted agricultural subsector, but also by market opportunities. Both domestic and export (or import substitution) market opportunities are interrelated with the agro-processing industry, domestic and international trade policies, and the market access conditions faced by producers. Thus, agricultural growth needs to be supported by pro-agriculture investments such as agricultural research, irrigation and road infrastructure and interventions outside agriculture such as market development, transportation and telecommunication, education and health. This is the key for successful implementation of an agricultural development strategy.

**Make growth pro-poor**

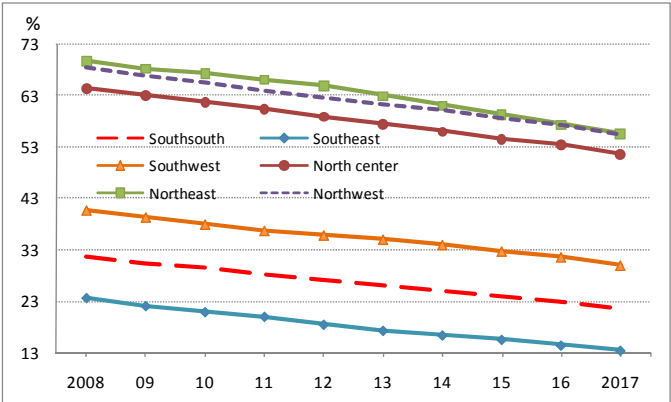
The “pro-poorness” of an agricultural subsector’s growth should be the top agenda item in an agricultural strategy. While agricultural growth is generally pro-poor, different types of agricultural growth can lift varying numbers of people out of poverty, depending on the poverty distribution across regions and households. For example, comparison across growth led by different agricultural subsectors shows that economy-wide growth driven by growth in cereals is more effective at reducing poverty than growth in other crop and livestock subsectors (Figure 1). Regionally, the modeling simulations show that the poverty rate in the three southern regions will fall to 13.4, down 30.0 percent by 2017, but will remain relatively higher in the three northern regions (Figure 2). Carefully assessing the linkages between subsector agricultural growth and poverty reduction at both the national and regional levels and taking advantage of such linkages are important steps to ensure that agricultural growth is pro-poor.

**Figure 1. National poverty rate (%) under alternative agricultural growth scenarios**



Source: Nigerian DCGE model results

**Figure 2. Regional poverty rate in the baseline scenario**



Source: Nigerian DCGE model results

Notes: “Base” refers to maintaining the existing conditions and level of growth. “CAADP” refers to accelerated 10 percent annual agricultural growth.

**Conclusions**

Accelerating Nigeria’s agricultural growth and alleviating poverty requires a national agriculture strategy that allows flexibility for states and regions to promote their comparative advantages and address their challenges. In drafting an agriculture strategy for Nigeria, decision-makers need to set priorities based on the contribution of the subsectors to agriculture growth and poverty, the strength of their linkages with other sectors, and market opportunities. This prioritization will guide the sequencing of programs that may help the government achieve its objectives within its budget constraints.

*This brief is excerpted from the Nigeria Strategy Support Program (NSSP) Background Paper No. 2, "Options for Agricultural Growth for Poverty Reduction in Nigeria" and was written with the assistance of Marcia MacNeil, Valerie Rhoe, and James Sackey. It is intended to promote discussion; it has not been formally peer reviewed, but it has been reviewed by at least one internal and/or external reviewer.*

*The Nigeria Strategy Support Program (NSSP) of the International Food Policy Research Institute (IFPRI) supports the Agricultural Policy Support Facility (APSF), an initiative to strengthen evidence-based policymaking in Nigeria in the areas of rural and agricultural development. In collaboration with the Federal Ministry of Agriculture and Water Resources and financially supported by the Canadian International Development Agency (CIDA), APSF supports the implementation of Nigeria's national development plans by strengthening agricultural-sector policies and strategies.*

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