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## The transformation of value chains in Africa: Evidence from the first large survey of maize traders in Nigeria

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### Introduction

Nigeria is the most populous country in Africa, and maize is one of its main staples. Most Nigerians eat some maize, half of Nigeria's population is urban, and about half of Nigerian farmers grow maize. Consequently, about 75% of Nigeria's 160 million people depend on maize traders to supply them this staple. However, there has been an under-emphasis in research and policy discussions on the role of such intermediaries, especially in the past 20 years (after dismantling of parastatals).

To address that gap, this brief summarizes a report on the first large survey of maize traders in Nigeria in the past several decades. The sample of about 1400 traders covered one state in the South and four in the North, with traders in city wholesale markets in the North (Jos, Kaduna, Kano, Katsina) and South (Ibadan) and regional markets in secondary cities in the North. These urban traders source maize from farms and other traders, and assemble, bulk, and transport or buy transport services. We administered formal questionnaires to traders individually, and surveyed assets and behavior in 2016 and 2011; five years before.

### Key Findings

First, we had several interesting findings about the structure of the segment.

- The average trader is a substantial SME – grossing 440,000 dollars per year in the North and 70,000 in the South.
- But the overall maize trade segment is quite concentrated – with a Gini coefficient of 70%.

### Highlights

- The urban food security of Nigeria (and of million rural maize farmers and consumers) is conditioned, mediated, determined by traders.
  - The north-south long supply chain of maize is crucial to the country's food security and its performance is in the hands of traders and conditioned by the quality of infrastructure and services.
  - Contrary to traditional views, traders rely on a well-developed third party logistics service sector market, and a warehouse rental market
  - Extremely little (less than 1%) waste/loss of maize in the supply chain which mainly consists of handling of bags of maize
  - Trader credit (advances) to farmers is near absent.
  - Traders and the trade and logistic segments of the maize value chain warrant more attention by researchers and policy makers.
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- Traders are mainly specialized in (1) trading rather than trading and farming (none in the South and just 40% of them in the North trade and farm, although their own maize formed only 10% of their trade) and (2) in maize (about 70% of their volumes) and (3) in wholesaling (taking possession) rather than brokering (for a fee).

Second, we had several interesting and surprising findings with respect to the client and spatial configuration of the segment.

- The maize supply chain is North-North and North-South: it depends overwhelmingly on the North, with even the Southern traders buying 80% of their maize from the North.
- Surprisingly, compared to the traditional view of wholesalers buying from rural brokers and thus the supply chain being long and fragmented, it is partially “dis-intermediated”, with Northern urban traders buying 50% of their maize from farmers, and Southern, 60%.
- Further, 80% of maize is sold by the traders to other traders and retailers, and only about 20% to feed and flour mills. The latter are still an emerging sector.
- In all these exchanges, contracts cover only a tiny share, about 5%.

Third, our survey provided insights into the conduct of a trading sector that is in contrast with traditional views.

- Traders own very little of the transport and warehousing they use. In the main they rely on a well-developed 3PLS (third party logistics service) sector market, and a warehouse rental market.
- Moreover, traders buy the vast majority of maize (except for the minority they produce as farmers) already bagged, and apply their label to it.
- Thus, few traders dry or fumigate the maize.
- Few traders (only 24%) store their maize, and then only for a short time.
- We find extremely little waste/loss of maize in handling of the bags (less than 1%).
- Fourth, we find that a long-held view of traders advancing funds or inputs to farmers no longer holds: we find that trader credit to farmers to be near absent – 6% of transactions in the South, 10% in the North, for advance of funds, and 0% for advance of inputs.

## Policy relevance and way forward

A first point is that the rural-urban maize supply chain in Nigeria is like a huge hour-glass in shape. At the broad base are millions of small farmers growing maize, and at the top of the hour glass are 100 million people buying maize (directly or via animals fed on feed of maize). In the middle of the hour glass, the passageway or funnel between the base and the top, are some 10,000 urban maize traders. The urban food security of Nigeria (and of rural maize buyers which are millions) is conditioned, mediated, determined by those 10,000. The implication is that government and researchers need to understand this segment better and attend to its needs and conditions to do its job best.

A second point is that these traders were found in our study to depend a lot on markets for third party services, in particular transport and warehousing. The conditions for those markets and actors, such as trucking companies, to do their job well, has been given very little attention in the policy debate in Nigeria.

A third point is that Southern Nigeria traders depend for three quarters of their maize on traders and farmers 1000 km North. Policymakers should note the vulnerability of these long maize chain – energy and climate shocks, road washouts, sociopolitical unrest, all these can disrupt that flow. It is key to work on conditions for that flow to be secure and fluid and protected. Also, with climate change and other implications of dependence on the north, a better understanding of the agronomics and economics of maize production (including cost implications and quality) in the south and its ability to complement with maize supply from the north should be explored

Finally, as the feed market grows (we found it grew 600% in just over 10 years in Nigeria!), and urban maize milling transforms and develops, markets will look for new varieties of maize, for quality, for traceability, for disease control. In all of these, farmers will play an important role. However, the traders will be the main conduit of incentives and investments to facilitate this. Exploring what incentives and conditions are needed to facilitate this is a new agenda that needs to be prioritized.

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