

Gender Dimensions in Nigerian Agriculture

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Summary

With a fast growing population requiring an ever growing supply of food, a national poverty rate of 63 percent, and a labor force that is dominated by agricultural work, Nigeria's efforts to boost agricultural productivity could not be better timed. Though women constitute a large share of the agricultural labor force in Nigeria, little is known about their activities, roles, and constraints in the sector. By thoroughly assessing their agricultural activities, it will help to determine not only what women are doing in the sector, but how best to reduce their constraints and increase productivity. This policy brief, the first in a series of two, investigates the role of women in Nigerian agriculture using the first dataset to capture a comprehensive picture of agriculture across the nation of Nigeria. It finds that women are heavily involved in the production of both staple (food) crops and cash crops, the agricultural value chain, and livestock production. However, women earn and produce much less than men, and have limited access to land, inputs, labor, and extension services.

INTRODUCTION

Nigeria is the most populous country in Africa with an estimated 160 million people. If the population continues to grow at the annual rate of 2.5 percent (World Bank, 2013), it will double in the next thirty years. With this projection, it is critical to ensure that the country can meet its growing food security needs. Furthermore, according to World Bank Reports, 63 percent of the country was classified as poor as of 2010, with the poverty incidence highest for agricultural households. Thus, improving the agriculture sector, which employs more than 60 percent of the labor force according to official government reports, could play a significant role both in ensuring food security and in reducing poverty.

In Nigeria many smallholder farmers and food producers are women, though as in most of Sub-Saharan Africa women are accorded lower status than men, which has a significant impact on access to resources and assignment of roles and responsibilities (BMGF 2008). In order to achieve the agricultural policy objectives of reducing hunger and poverty in a sustainable manner, the lives and wellbeing of female smallholder farmers must be supported through methods that engage and empower them to achieve productivity gains in

spite of prevailing gender roles and patterns in their communities.

By gaining a more in-depth understanding of women's role in agriculture and who farms what in Nigeria, the government, civil society, and other actors could more effectively reduce constraints to women farmers and increase the impact of agricultural programs and policies.

DATA

This policy brief, the first in a series of two, uses the first dataset, from the General Household Survey-Panel (GHS-Panel) conducted in 2010/11 by the Nigeria National Bureau of Statistics (NBS) in collaboration with the World Bank Living Standard Measurement Study (LSMS) team, to capture a comprehensive picture of agriculture across the nation of Nigeria. It is representative at the national, zonal and rural/urban levels and includes all six geopolitical zones in Nigeria, three of which are in the North (North East, North West and North Central) and three of which are in the South (South East, South West and South South).

This analysis focuses on the more than 3,000 households that reported engagement in agriculture¹ at the time of the GHS-Panel 2010/2011 survey. It includes information on the manager of each specific plot farmed, rather than defaulting to the household head as the manager, as is common in many surveys.

WOMEN IN NIGERIAN AGRICULTURE



Agriculture is the main economic activity in every zone of Nigeria, except for the South South and South West, and although men are more likely than women to participate in agriculture, the difference is minimal. Across the nation, 57 percent of all households are involved in agriculture; the figure does not vary much between male- and female-headed households, of which 60 percent and 48 percent participate, respectively.² As expected, the number of households participating in agriculture is higher in rural areas (78 percent) and lower in urban areas (25 percent).

It is also becoming less common to find certain crops produced exclusively by men or women (Saito 1994, Doss 1999, Gladwin 2010). Approximately 90 percent of both male- and female-headed households produce staple (food) crops. In addition,

women's involvement in cash crop³ production has substantially increased in recent years, with 22 and 25 percent of female and male household heads in cash crop production, respectively. Overall, the main staple crops on female-managed plots include yams, cassava, and maize, while men tend to manage plots that grow sorghum, maize, and beans.

Livestock production shows a more marked gender divide, as men are more likely to own and control larger and more valuable livestock, such as cows, bulls, and oxen. Women, however, tend to own and control smaller and less valuable livestock, such as goats, sheep, and poultry.

When we look at activities across the agricultural value chain, female plot managers are just as involved as male managers. Of female managers, 32 percent process their harvest and 36 percent sell what they produce. These figures are similar to those for male managers, of whom 34 percent process and 38 percent sell their crops.

WHO MAKES MORE?

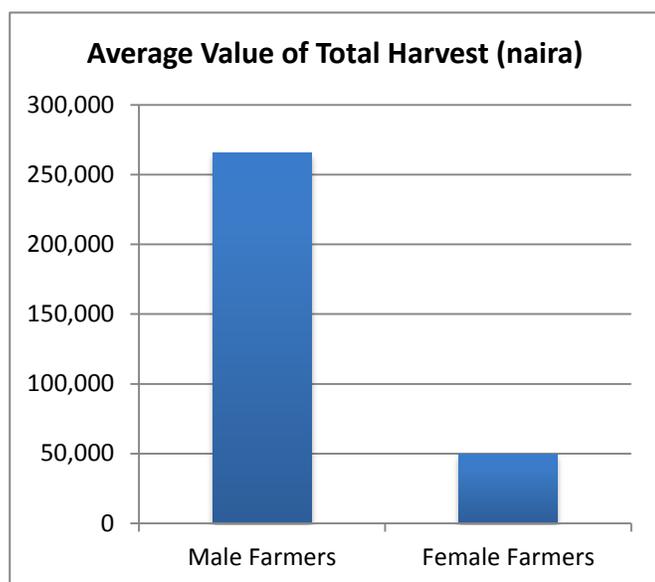
The evidence that women, like men, are highly involved in agriculture in Nigeria, begs the question: Are women's production and earnings from agriculture also similar? Unfortunately, the data show that they are not.

When we examine the returns from agricultural activities, we find that male farmers earn more than female farmers in Nigeria from both staple (food) and cash crops. Looking at the total harvest value for all crops combined, male plot managers make on average more than five times their female counterparts, who make an average of approximately 49,000 naira per year. Because male plot managers tend to cultivate larger plots, this gender gap diminishes when we take land size into account, but it is still significant.

¹ An agriculture household is defined as a household where at least one member is involved in crop cultivation and/or livestock activity.

² These figures are from the GHS-Panel survey 2010/11 implemented by the NBS.

³ Cash crops include groundnut, cotton, cocoa, rubber, cotton and oil palm. The averages are significantly lower without the inclusion of groundnuts (which have the lowest market value of all the cash crops included).



LAND, INPUTS, AND LABOR

In order to understand the gender gap in earnings that exists in Nigerian agriculture, it is necessary to examine the conditions in which male and female farmers work, especially with regard to access to key factors of production.

Access to Land

Access to good quality farmland is a pervasive problem for smallholder farmers in Nigeria, a challenge particularly felt by female farmers. Female-managed plots, which average 0.3 hectares in size, are significantly smaller than male-managed plots, which measure 0.6 hectares on average. In addition, female plot managers are half as likely as their male counterparts to purchase land, and twice as likely to rent it. Nationally, 67 percent of male managers report having the right to sell the plots under their control, as compared to only 31 percent of female managers.

Access to land is a critical gap, as secure and individualized land rights can “improve a farmer’s ability to reap returns from investments on land, resulting in greater demand for land improvements and complementary inputs” (Feder et al. 1988). The data support this argument, as only 0.5 percent of female-managed plots are irrigated, as compared to 3.5 percent of

male-managed plots. Increased tenure security can also improve the credit worthiness of farmers and enhance their chances of obtaining formal credit for farming activities (Feder et al. 1988). Again, the data bear this out as 72 percent of men reported an ability to use land as collateral, whereas only 38 percent of women reported the same. For female smallholders, who are more likely to face uncertain tenure status and are oftentimes left with the smallest portions of land, these constraints may have an increasingly negative impact on their ability to produce (Phillip et al. 2008).

Physical Inputs and Tools

Male plot managers are also more likely than female plot managers to use inputs, such as fertilizer (42 percent and 19 percent, respectively), herbicide (26 percent and 6 percent), and animal traction (28 percent and 3 percent).

In addition to land tenure and input use, agricultural tools are another significant contributor to improved agricultural production among smallholders. Whether mechanized or manual, the availability of these implements on a consistent basis assists farmers in increasing their production. With the exception of the most rudimentary tools, the percentage of male-headed households with ownership claims to farming implements far exceeds that of female-headed households. The cutlass, hoe and wheelbarrow are the most popular tools across both genders. Larger mechanized implements such as harvesters and planters are not as popular, with only 0.9 percent of overall male-headed households and no female-headed households reporting ownership of either implement.

Agricultural Labor

Female farmers are also at a disadvantage in terms of access to agricultural labor, a key input for productivity in an environment such as Nigeria, which has low levels of mechanization. On one hand, female farmers use fewer days of family labor, are less likely to hire outside labor, and, when they do, use fewer days of hired labor on their plots. On the other hand, male farmers tend to hire outside male labor for

assistance in their fields while also using more than three times the amount of male family labor than women.

ACCESS TO INFORMATION

Engaging in increasingly productive agricultural activities requires the dissemination of information related to production and marketing to farmers. The lack of accessible agricultural information is a key contributor to the inability of smallholder farmers to transition from subsistence to commercial agriculture.

In Nigeria, extension services tend to focus on introducing new seed varieties, pest control, fertilizer use, animal disease control/care, and marketing. Nationally, 15 percent of male-headed households in Nigeria report receiving extension services, as compared to only 8 percent of female-headed households. This gap is driven by larger gender differences in urban areas, whereas access in rural areas is similar. Extension information is most often transmitted formally through government extension agents and informally through peer farmers and electronic media.

Recent efforts to improve smallholder access to agricultural information have resulted in increased application of information and communication technologies (ICT) in the dissemination of information to agricultural households and in the development of the agriculture sector (Okello et al. 2010). With the potential to reduce transaction costs for smallholder participation in markets, promote commercialization, and improve household food security, ICT has become a mainstay in agricultural programs globally and its impact is a major topic of development discourse (Okello et al. 2010). Unlike extension services, access to ICT is similar for both male and female farmers in Nigeria. Across the board, individuals in the sector report that about 85 percent use the radio, 35 percent watch television, 70 percent use a cell phone, and 1 percent has internet access.

NONFARM ACTIVITIES

Despite the evidence of significant agricultural engagement by Nigerian farming households, the majority of these households do not subsist solely on the proceeds of their farming activity (Awoyemi 2011, Kuiper et al. 2006, Gordon and Craig 2001). Non-farm activities play an important role in rural households' income and livelihoods, even in areas commonly perceived to be subsistence-oriented. We observe substantial participation in nonfarm activities⁴ among all households in Nigeria, with 70 percent of females and 79 percent of males participating in nonfarm income-generating activities and 21 percent of female and 48 percent of male heads of household engaged in both farm and non-farm activities simultaneously. Female- and male-headed households tend to access different nonfarm sources of income, with women being more likely to work in retail trade, manufacture of food products, and apparel, whereas men are more likely to work in food and beverage service, wholesale retail trade, and repair.

For questions and more information about the Africa Region's gender program, please contact Katherine Manchester at kmanchester@worldbank.org.
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SUMMARY

Women, like men, are heavily involved in Nigerian agriculture, including producing staple (food) crops and cash crops, and participating all along the agricultural value chain. However, women have smaller and less secure plots of land, less access to physical inputs such as fertilizer and herbicide, less use of labor, and less access to extension services. It is not surprising, then, that female farmers earn and produce much less than male farmers.

⁴ Nonfarm activities include nonagricultural wage work, operation of a nonfarm enterprise, remittances, savings/interest income, and rental income.