



#OgbongeWomen – Chinasa Asonye and Nguavese Jande interacting with a female trader in Wuse Market, Abuja Nigeria. Photo Credit: Abdulazeez Musa

FINE WORDS DO NOT PRODUCE FOOD

Nigeria must escalate investment in agriculture and climate change adaptation to support smallholder farmers

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SUMMARY

With adequate support, small-scale farmers throughout Nigeria could overturn rampant malnutrition and move the country toward food security. But as the Nigerian proverb goes, *'fine words do not produce food.'* The government is pursuing a vision of economic transformation and commercialization with agriculture at the centre, yet small-scale farmers are not the focus of investments. Funding levels for agriculture and climate change adaptation are significantly lower than promises, and money is skewed toward larger scale projects and research. The support that small-scale farmers need is straightforward—ranging from fertilizer to market access to climate change adaptation strategies—and the Nigerian government must escalate investments to deliver these vital resources.

Recommendation 1: Increase funding for agriculture and climate change adaptation

In line with its commitment to the Maputo Declaration, the Nigerian government should increase spending in the agricultural sector to at least 10 percent of the national budget. As a matter of urgency, the government in partnership with donors should work toward boosting dedicated climate adaptation funds in the agricultural sector to match investments in other African countries.

Recommendation 2: Redirect funding to smallholder farmers

The government should redirect investments to align with the needs of smallholder farmers, especially women farmers who face additional constraints in accessing agricultural inputs and extension services. Farmers need support to ameliorate the high cost of fertilizers, machinery, water pumps, and other resources. Farmers who access inputs through credit may achieve more economic independence, especially when they are setting funds aside through savings groups. Nigerian farmers also need weather information, market access, land tenure, and adaptation strategies.

Recommendation 3: Enact policies to scale up private sector involvement

Public-private programs that have demonstrated success in enhancing food production and providing a ready market for products should be sustained and improved to support smallholder farmers. These programs should consider conducting a needs assessment to provide the kinds of inputs, credit programs, and timely delivery that farmers need.

1 NIGERIAN FARMERS NEED GOVERNMENT SUPPORT

Smallholder farmers are the backbone of Africa's largest economy, and Nigeria is predicted to be one of the world's 15 largest economies by 2050.¹ Agriculture makes up nearly one quarter of the country's economy, contributing more than the manufacturing and oil sectors combined.² The vast majority of the country's farmers—over 80 percent—are smallholders³ who are positioned to overturn widespread malnutrition and help the country emerge from poverty. The need for this transformation in food security is dire, as Nigeria accounts for 15 percent of child mortality under five worldwide⁴, and in the Northern part of the country starvation has wiped out this age group entirely.⁵ The country's economic growth needs to focus on the potential of small-scale farmers to reverse this food crisis, because small farms produce the majority of the world's food and are at the forefront of addressing hunger, poverty, and climate change.⁶ In Nigeria, more than 80 percent of farmers are smallholders.⁷

For Nigerian farmers, critical inputs are out of reach and climate change intensifies existing vulnerabilities. These challenges came to light in Oxfam research on farmer perspectives in the states of Kebbi and Adamawa and on the lives of women farmers in these states. This report highlights the results of Oxfam's farmer survey, and the story of a woman farmer representing the additional layer of exclusion that women face in accessing farming resources.

Critical farming inputs out of reach

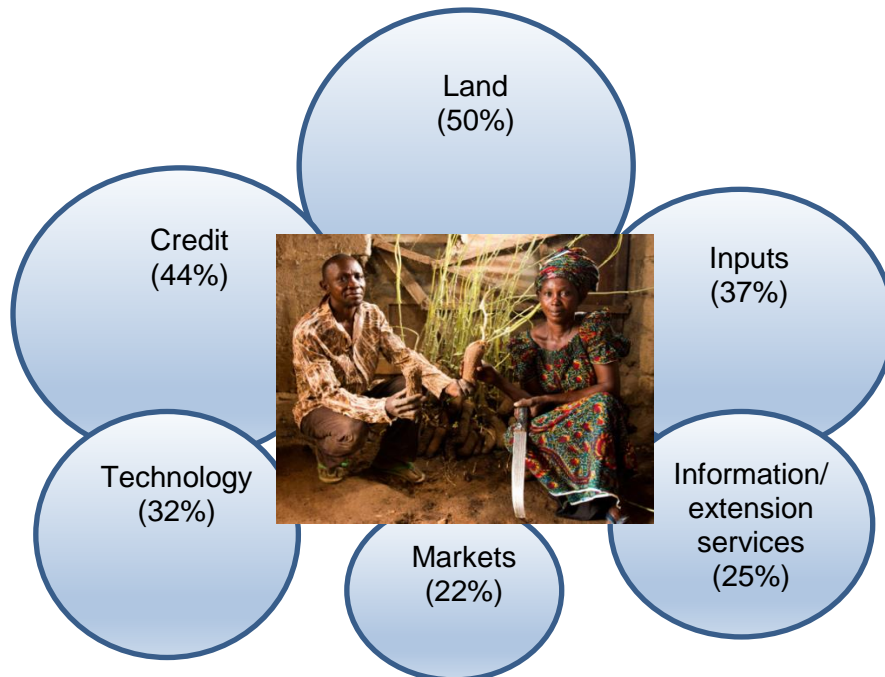
Running a small-scale farm in Nigeria is an uphill battle against many constraints, such as costly farm inputs; lack of information; limited access to technology, credits, and markets; and land tenure problems.⁸ Figure 1 shows the share of farmers in Kebbi and Adamawa states that identified specific constraints, with land, credit, and inputs such as fertilizer, seeds, and water pumps reported as the greatest constraints.

Access to key inputs such as land, credit, and technology can make or break a small farm. Almost half of farmers in Kebbi and Adamawa pointed to credit as a key constraint, while more female farmers than male farmers found technology to be an overwhelming challenge.⁹

Information poses another barrier. In Kebbi state, farmers reported that weather forecasting during a rain shortfall in 2015 could have avoided major harvest losses. After flooding hit Adamawa, farmers complained that government media messages directing communities to simply move away from flooded areas should have also presented options for farmers.¹⁰ Farmers are left with a technical information gap

when there is a disconnect with extension agents, caused by differences in social status, poor communication and underuse of media, and lack of interagency cooperation.¹¹

Figure 1: Constraints faced by farmers surveyed in Kebbi and Adamawa states



Source: T. Olusade, D. Bukola, E. Funmi, A. Titlope (2017). 'Impact of Investments in Agriculture and Climate Change Adaptation on Small Scale Farmers in Nigeria'. Oxfam/WANEP project.

Farmers pointed to the absence of government support as the primary problem. Local governments are not having an impact with small-scale farmers because they are narrowly engaged in distributing subsidized fertilizers and providing land for agricultural programmes. The services outlined in the national agricultural policy are not being delivered due to limited funding and staff capacity, as well as embezzlement.¹² The federal government's Anchor Borrowers Scheme has been criticized for registering fictitious farmers. And in Adamawa, smallholder farmers indicated they are unable to access governmental hiring facilities because those services end up being reserved for privileged farmers.¹³ Throughout Nigeria, the main reason that smallholder farmers are not as productive as they could be is the lack of government commitment at all levels to implement the right policies.¹⁴

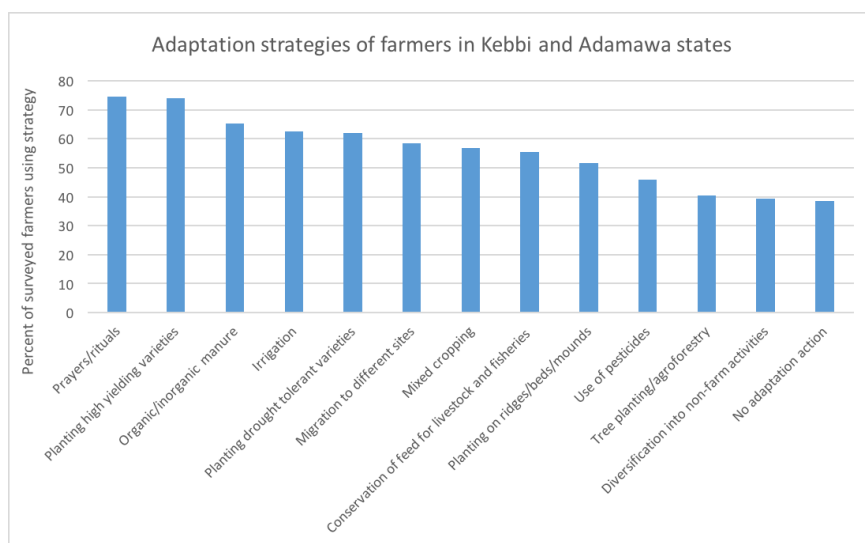
Losing crops to climate change

Climate change has brought additional uncertainty and risk to Nigeria's largely small-scale food system. As of 2015, Nigeria was ranked as the world's fourth most vulnerable country to climate change.¹⁵ In 2012 during severe flooding in Nigeria, 2.3 million people were displaced, over 360 perished, and hundreds of thousands of houses were destroyed or damaged. The total damage caused by the disaster amounted to \$16.9 billion.¹⁶ The country's food supply is highly vulnerable to such extremes in precipitation as the population depends heavily on rain-fed agriculture.¹⁷ The expanding desert belt along with deforestation have reduced the amount of land available for farming¹⁸, and decline in rainfall at a rate of 3 to 4 percent per decade has negatively impacted crop yields. A shortening of the rainy season means fewer opportunities for planting, and the lack of storage facilities has resulted in post-harvest losses of up to 40 percent.¹⁹ Climate change could decrease Nigeria's economic productivity by up to 11 percent by 2020, and up to 30 percent by 2050.²⁰ Agricultural productivity is projected to decline by 10 to 25 percent by 2080, and by 50 percent in some northern regions.²¹

A similar picture emerges in Kebbi and Adamawa states, where about half of farmers spoke of declining harvest, cultivated area, and production yields²² due to climate variability and extreme weather events.²³ Farmers are losing livestock, crops and vegetables are washed away in flooding, and fish do not survive in warmer temperatures. Drought and windstorms are also causing produce losses, such as potatoes. This signifies a loss of livelihood for these farmers.

Farmers need support to understand which climate change adaptations might help them. About 40 percent of farmers were not adapting their farming practices in response to weather extremes, and 75 percent were relying on prayers and rituals as one of their solutions (see Figure 2).

Figure 2: Adaptation strategies of farmers in Kebbi and Adamawa states



Source: T. Olusade, D. Bukola, E. Funmi, A. Titlope (2017). 'Impact of Investments in Agriculture and Climate Change Adaptation on Small Scale Farmers in Nigeria'. Oxfam/WANEP project.

Women and men farmers alike are experiencing losses regardless of which crops they produce. Women vegetable farmers in the Tarasa community of Kebbi state report that reduced rainfall has reduced output from 2.5 baskets of tomatoes to only 1 basket. Male grain farmers in the same community report that rainfall was a natural pest prevention, and the reduced rainy season of 6 months to about 4 months results in a proliferation of worms, birds, and insects cutting rice and millet harvest in half. A woman farmer in Adamawa state reported that due to flooding she lost about 2 hectares of rice that was ready for harvesting, another group of farmers reported a loss of 2,000 fish, and others have lost pigs and turkey to unexpected heat waves.

Women farmers need extra support

The majority of Nigerian households are involved in agriculture, and this includes a similar share of female and male headed households.²⁴ Women farmers make up 40 percent of food production across the countries of Nigeria, Ethiopia, Malawi, Niger, Nigeria, Tanzania, and Uganda. Comparatively in Nigeria, women make up 37 percent of farmers, and 51 percent in the south of the country.²⁵ In most communities in Kebbi state, women are prohibited by their husbands to farm, or not allowed to interact with officials to collect farm inputs, leaving men to channel those inputs to their own farms. Women often have poor access to irrigation services because they chose a remote location for farming without being informed about irrigation facilities, or because cultural norms dictate that their domestic and farming work be less visible to the public Under the Anchor Borrowers Scheme of the

Central Bank of Nigeria, 100 farmers received pumps, fertilizer, seedlings, and financing, but these subsidies were largely provided to male farmers. Launched in 2015, the national program is meant to create a linkage between large-scale agricultural processing companies and smallholder farmers.²⁶

The difficulties that women farmers face in accessing resources and support is brought to light by the story of Safiya Marafa, who participated in the Anchor Borrowers Scheme in Kebbi state. As of 2016, Safiya was one of few women among tens of thousands of rice farmers in Kebbi state²⁷ who received farming inputs provided by this program—such as seeds, water pumps, fertilizer, and loans. Following the death of her husband, Safiya was faced with farming land in a community where women are significantly underrepresented and do not usually inherit property. She had no access to weather information services. Women in her position are less likely to benefit from programs that provide farming inputs and support. But as a result of receiving advice from extension workers to practice crop rotation, Safiya participated in the central bank program, repaid her loan ahead of all of the men in the program, and doubled the amount of land she cultivates. Her household's nutrition improved significantly, and in exchange for labor she provided food to other women farmers who aren't able to access land and government support. Safiya believes that other women farmers will benefit if the government is able to compensate farmers for produce in a timely manner, provide fertilizer at a reduced rate, and improve the road for market access.

2 A SHORTFALL IN RESOURCES

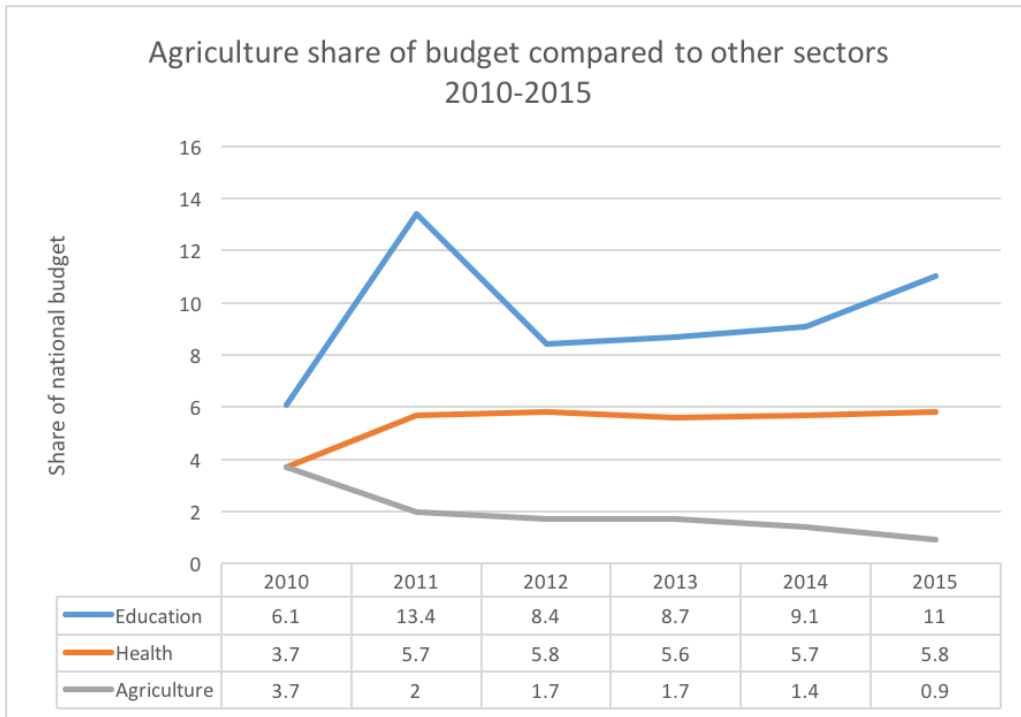
Nigeria has no shortage of policies in place that could theoretically support small scale farmers, but implementation has not reached them. The country's Vision 20:20 is a roadmap for economic diversification, aiming to lessen the government's dependence on the oil sector for revenue, increase agriculture's competitiveness, and stimulate manufacturing to support the agricultural sector. One key example of flawed execution of these plans is the fact that irrigation is not reaching smallholders. To mitigate the impact of climate change and reduce reliance on rainfall, one government objective is to initiate massive irrigation schemes. Yet there has been minimal effort to track the expansion of irrigation services, and storage and processing facilities are lacking, resulting in significant post-harvest losses. This is but one example of an area of government support that could help transform Nigeria's agricultural sector to move smallholder farmers toward self-sufficiency.

In response to climate change, the National Agricultural Resilience Framework (NARF) aims to provide capacity for risk management in agriculture, introduce drought tolerant crops, subsidies for water pumps and alternative energy sources, affordable insurance options, and nutritional interventions for women and children. The agricultural ministry's involvement in climate change adaptation is primarily in construction of mini dams for water harvesting and training farmers to practice conservation agriculture, minimal tillage, and other techniques. While the program specifies ownership of motorized pumps by women farmers, a major barrier is that some projects have not been funded. The involvement of farmers in policy and budgeting decisions has been circumspect in the past, although recently non-governmental and private sector stakeholders have been given the opportunity to comment on proposals by governmental bodies during the budgeting process.

Low overall investment in agriculture and climate change adaptation

While investment in agriculture is expected to be 11 times more effective at reducing poverty in Africa than investment in other sectors²⁸, Nigeria's agricultural spending is falling short. Despite its commitment to the Maputo Declaration's benchmark of 10 percent investment in agriculture, on average Nigeria allocated 1.9 percent per year to agriculture during 2010-2015, ending in a low of 0.9 percent.²⁹ The country's average allocation to agriculture fell below allocations to the education sector, at 9.5 percent, and health sector, at 5.4 percent (see Figure 3).³⁰ The situation is more dire when looking at expenditure as a proportion of GDP, with agriculture receiving an average of 0.1 percent during this period. Sluggish growth in agriculture points to a lack of transformation in the sector and the limited value the sector brings to the overall economy. Agriculture contributed only 8.5 percent to the country's growth during 2010-2015, compared to higher rates in manufacturing (20.5 percent) and services (14.9 percent).

Figure 3: Agricultural Share of Budget Compared to Other Sectors 2010-2015



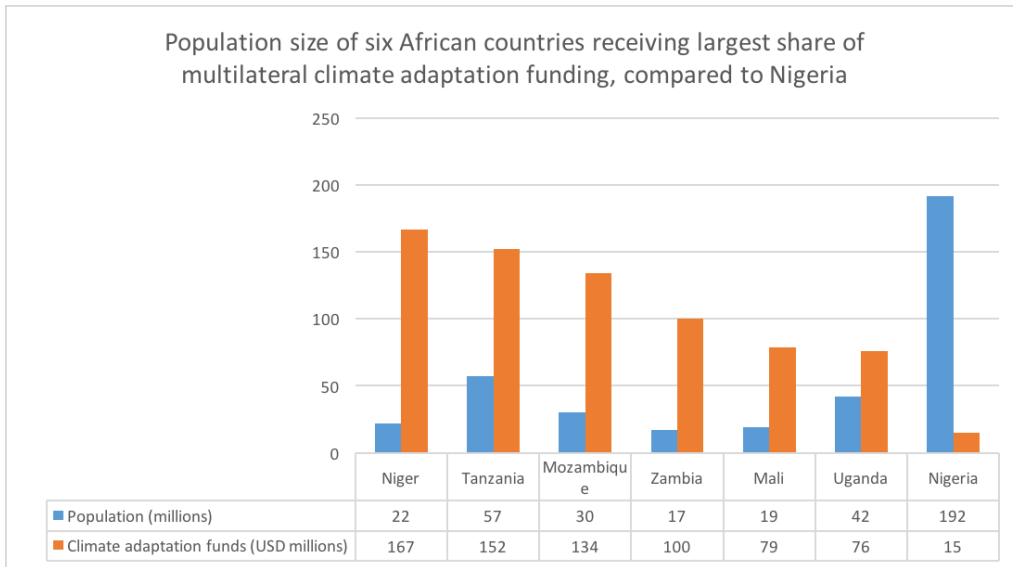
Source: Central Bank of Nigeria (CBN) (2010-2015) Annual Reports, 2010-2015. CBN.

Financing to support climate change adaptation is also drastically below expectations. The funding needed for both adapt to and mitigate climate change is estimated by the country's environment ministry at \$10 billion per year through 2030.³¹ But as of May 2017, Nigeria has received only USD 15 million in funding from multilateral institutions for climate change adaptation.³² Nigeria's population size is about equal to the combined populations of the six countries receiving the largest share of multilateral climate adaptation funding—Niger, Tanzania, Mozambique, Zambia, Mali, and Uganda. Yet these countries have received a combined 47 times the amount of finance for adaptation as the population of Nigeria (see Figure 4).³³

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Nigeria has not benefitted from multilateral climate funding because it has not established a sufficient institutional framework to access this funding. The environment ministry's climate change department is designated to approve funding, which is important for alignment with Nigeria's development priorities, but the department cannot receive funds directly. The agriculture ministry handles adaptation issues while the environment ministry handles mitigation issues, but climate change is generally not well integrated across all ministry policies, for example transportation and housing.

Figure 4: Population size of six African countries receiving largest share of multi-lateral climate adaptation funding, compared to Nigeria



Sources: Overseas Development Institute (2017). 'Approved Project Spending by Country'. *Climate Funds Update*. Accessed 25 August 2017. <http://www.climatefundsupdate.org/regions/> United Nations Department of Economic and Social Affairs (2015). *World Population Prospects: The 2015 Revision. Medium-fertility variant*. Population Division. <http://www.un.org/en/development/desa/population/theme/trends/index.shtml> Accessed 27 August 2017.

International aid that Nigeria receives for agriculture declined significantly during 2012 and 2013, but then jumped by 5 times in 2015.³⁵ The country's agriculture and water budgets each received about 1 percent of aid in 2014-2015, significantly behind aid invested in health (68 percent) and education (19 percent).³⁶ Agricultural aid averaged about 13 percent of total aid during 2007-2015.³⁷ The southwest of Nigeria received 15 times the aid that was disbursed to the northeast, a region that ranks lower on human development indices.³⁸

To curb donor-driven aid that was not aligning with national priorities, Nigeria established an aid tracking database and a requirement for donors to consult the budget and planning office for needs assessments. However, staff turnover in donor country offices prevents timely data input, donors complain that data is not being used, conflicting interests arise between ministries, and not all donors channel their interventions through the database. There are also discrepancies with international tracking platforms. About 400 projects were recorded in the national database in 2015³⁹, while about 1800 active projects were reported in the International Aid Transparency Initiative in 2017.⁴⁰

Investments not reaching small-scale farmers

Farmer surveys in Kebbi and Adamawa states confirmed that small-scale farmers are not receiving enough government support, or the type of support that they need, to access key agricultural inputs and overcome the extremes in precipitation brought about by climate change. There is a clear disconnect between policy intention and the services that farmers are actually receiving. Specific to coping with the impacts of climate change, about 69 percent of farmers surveyed had not received support, some of the support received was non-governmental, and more male than female farmers had benefited.⁴¹

Interventions that could transform the lives of farmers are being passed over in favour of large infrastructure projects and research initiatives. Half of agricultural funding goes toward capital projects—and a significant proportion of this goes to around 40 training and research institutions. Capital funding and research targeted

at irrigation and crop development could potentially have a positive effect on the lives of small-scale and women farmers, but governments need to ensure that research findings are translated into actions that have an impact on their lives. Funding is also skewed away from areas with higher incidences of poverty.⁴²

Policy instability and corruption are among the primary challenges facing the Nigerian government. Abrupt changes in government leadership and policies impede the implementation of agricultural policies. A high rate of turnover in programmes and personnel has also prevented accountability, and willful violation of policies is commonplace. Internationally, the Nigerian public sector is perceived to have a high rate of corruption,⁴³ a perception that is shared by small-scale farmers. Some farmers in Kebbi and Adamawa believe that some opportunities of government assistance in the agricultural sector are acquired by government officials, politicians, and their family members. Hiring facilities favor influential farmers and public officials, and fictitious farmers have been known to register for the government's support scheme. Investing in agriculture has been identified as a route to reducing opportunities for embezzlement, given the network of corruption that is closely tied to government revenue from the oil sector.⁴⁴

3 HARNESSING THE PRIVATE SECTOR

Nigeria has a number of public-private initiatives, two of which are described below, that with improvements could benefit small-scale farmers.

LAKE Rice Initiative

The Lagos-Kebbi (LAKE) Rice Initiative was established in 2016 to strengthen food production, processing, and distribution in a key commodity, and to develop the agricultural potential of the states of Lagos and Kebbi. The initiative is a unique partnership between a private milling company and the two states, which were made responsible for processing rice and engaging directly with farmers. As part of the LAKE Rice initiative, the company purchases rice from farmers and supplements from local markets. The demand for rice is strong enough that down payments are made for rice prior to harvesting. Farmers are provided with seeds, fertilizers, and pesticides as loans that are paid back in produce. Both the company and the government of Kebbi provide extension services, weather information, and monitoring, through agents that visit large farming communities.

LAKE Rice is a widely lauded initiative throughout Nigeria for its potential to build food security, expand employment, and distribute income throughout the rice value chain.⁴⁵ The initiative has greatly expanded the area of land under cultivation due to expanded support to farms established at different levels in the state. Farmers that are intended beneficiaries revealed that credit did not reach them at the right time, which negatively impacted some farmers' production, especially in light of losses due to flooding. Other farmers found that the credit cycle was too short and didn't take into account losses they incurred. Since the company selected only a limited number of farmers to work with them, farmers ended up sharing credit amongst them, which reduced its impact.

From the perspective of the private milling company, the government's policy on rice importation changes from one day to the next, and needs to be stabilized. The water basin authority releases water from a dam in another state that unexpectedly floods farmlands in Kebbi state, which could be avoided through better communication with communities. Through some efforts have been made to monitor seed production companies and enforce accreditation, more effort is needed to ensure standardization of seeds and to also provide support to farmers who are currently reducing quality by mixing grains. Finally, the government needs to identify genuine farmers, to reduce the diversion of resources to non-farmers.

Of the 5700 farmers engaged by the private milling company, about 12 percent are female farmers. Due to cultural norms in most Kebbi communities, women are prohibited from farming land directly, except if they are divorced or widowed, and thus most women farm by proxy through their husbands, brothers, or children. Despite the cultural barriers that female farmers face, they were found to pay back loans faster and to be more efficient in planting, and could benefit from two loan cycles in a single planting season.⁴⁶

Growth Enhancement Support Scheme (GESS)

Through the agriculture ministry's Growth Enhancement Support Scheme (GESS), three local governments in Kebbi state are working to move impoverished farmers

from subsistence production to market production. The program is part of the country's Agricultural Transformation Agenda (ATA) aimed at making Nigeria's agriculture globally competitive, generate jobs, and reduce reliance on food imports. Established in response to the high price of fertilizer, which was of substandard quality and often ineffective, the GESS provides affordable fertilizer to farmers via mobile phone vouchers. The program is designed to shift the government's role away from direct procurement and distribution and toward facilitating procurement, regulating fertilizer quality, and driving involvement of the private sector. Between 2011 and 2014, an estimated 12 to 14 million farmers received subsidies, and farmers witnessed significant improvements in yields, estimated at 40-50 bags of rice per hectare as opposed to the previous 25 bags from the same plot size. Extension agents interviewed by Oxfam confirmed that 98 percent of farmers use inputs effectively and have seen increased farm outputs.⁴⁷

Farmers in Kebbi identified a number of constraints in the program that could be addressed to better support farmers. Most critical is that fertilizer has been distributed very late – after the planting season instead of when it is needed. Overall, public funding is needed to support access to farming inputs and other forms of support. Ideally, financial support would be in the form of credit instead of subsidy—farmers with whom Oxfam collaborates in Nigeria favor credit because it doesn't create as much financial dependency. But in the context of programs that only provide subsidies, farmers indicate they need an increased discount on farming inputs to succeed, from the current 50 percent to 75 percent. Lack of communication between farmers and extension agents can jeopardize farmers' access to these services, particularly when mobile phones are misplaced or when the internet network fails. Farmers who cannot afford a mobile phone are barred entirely from registering for these subsidies. A large number of farmers are excluded from participating, and this could be fixed by consulting local village and district leadership to identify genuine farmers.⁴⁸

4 RECOMMENDATIONS

Investment in agriculture remains well below the Nigerian government's commitment to the Maputo Declaration, and resources for climate change adaptation are significantly lower than the amounts delivered to other African countries. The little funding allocated to the agricultural sector is not focused on food production by small-scale farmers, who are in need of basic inputs and adaptation strategies to help the country transform its agricultural system toward food security. Nigeria has found some success with public-private partnerships expanding access to markets and delivering fertilizer and other inputs, and these investments need to be made more responsive to the needs of small-scale farmers.

Recommendation 1: Increase funding for agriculture and climate change adaptation

In line with its commitment to the Maputo Declaration, the Nigerian government should increase spending in the agricultural sector to at least 10 percent of the national budget. As a matter of urgency, the government in partnership with donors should work toward boosting dedicated climate adaptation funds in the agricultural sector to match investments in other African countries.

To support the expansion of investment, the government's finance tracking system should be improved to assess achievements of targets in agriculture and climate change adaptation, to promote greater transparency, and use of the system should be mandatory for all donors.

While investments in infrastructure and agricultural research are potentially beneficial to farmers, the government should demonstrate direct applicability and benefits to small-scale and women farmers, including translation of research findings into actions that have an impact on their lives.

Recommendation 2: Redirect funding to smallholder farmers

The government should redirect investments to align with the needs of smallholder farmers, especially women farmers who face additional constraints in accessing agricultural inputs and extension services. The government should break down existing patterns of misappropriation of funds and work toward greater transparency in budgeting and policy processes, ensuring that the voices and needs of small scale farmers are reflected in decision making.

Farmers need support to ameliorate the high cost of fertilizers, machinery, water pumps, and other resources. Farmers who access inputs through credit are able to achieve more economic independence, especially when they are setting funds aside through savings groups. Regular information on precipitation, temperature, and extreme weather events broadcast via media and in local languages will help farmers to avoid crop losses and to adapt to climate change. To relieve small scale farmers of the burden of finding markets for their produce, especially now that farmers need to sell off produce quickly due to unpredictable weather, the government and private sector should work together to provide a ready market, including immediate purchase after harvest and bearing the cost of storage and marketing. Farmers should receive training on strategies to adapt to climate change, as well as loans and insurance policies that factor in losses from extreme events such as flooding.

Given the heightened performance of women farmers repaying loans and using farming inputs efficiently, combined with an acute disadvantage in accessing inputs and vulnerability to climate change, government interventions should be designed to prioritize female beneficiaries. First steps could be to assign a minimum benchmark of services to women farmers and to report on the number of women and men receiving benefits. For example, in the context of new funds released for the Anchor Borrowers Scheme in October 2017, the government should collect data on how many women farmers are receiving these benefits.⁴⁹ As a secondary priority, the government could then establish a database of women's groups under each agricultural value chain.

Recommendation 3: Enact policies to scale up private sector involvement

Programs that have demonstrated success in enhancing food production and providing a ready market for products, such as LAKE Rice and the GESS, should be sustained and improved to support smallholder farmers. These programs should consider conducting a needs assessment that draws on the input of farmer groups and community leaders. Rather than uniform services, farmers should receive what they need—some farmers require fertilizer while others in lowland areas are in need of other services. The credit cycle should be extended, due to losses incurred by farmers during the planting season, and the timing of inputs should be delivered in line with farmers' planting needs. The government should institute a better screening process to ensure that farming inputs and financial support are being received by actual farmers. The government should also improve infrastructure for transporting products to larger markets and stabilize policies on food importation to instill confidence in farmers, investors, and markets.

NOTES

- ¹ Price Waterhouse Coopers (2017). 'The Long View: How will the global economic order change by 2050?'. <http://www.pwc.com/gx/en/world-2050/assets/pwc-the-world-in-2050-full-report-feb-2017.pdf> Accessed 1 September 2017.
- ² C. Agabi (2016). 'Nigeria: Agriculture Now Contributes Over 24 Percent to GDP - Central Bank'. Daily Trust. 14 April 2016. <http://allafrica.com/stories/201604141130.html> Accessed 25 August 2017.
- ³ R. N. Mgbenka and E.N. Mbah (2016). 'A Review of Smallholder Farming in Nigeria: Need for Transformation'. International Journal of Agricultural Extension and Rural Development Studies, Vol.3, No.2, pp.43-54, May 2016. Published by European Centre for Research Training and Development UK <http://www.eajournals.org/wp-content/uploads/A-Review-of-Smallholder-Farming-In-Nigeria.pdf>
- ⁴ UNICEF (2016). The State of the World's Children 2016: A fair chance for every child. https://www.unicef.org/publications/files/UNICEF_SOWC_2016.pdf Accessed 6 September 2017.
- ⁵ D. McNeil Jr (2017). 'Malnutrition Wiping Out Children in Northern Nigeria, Aid Workers Say'. <https://www.nytimes.com/2017/01/23/health/malnutrition-nigeria-children.html?mcubz=0> Accessed 6 September 2017.
- ⁶ World Resources Institute (2011). *State of the World 2011: Innovations that Nourish the Planet*. <http://www.worldwatch.org/sow11/> / FAO (2014). *State of Food and Agriculture 2014*. <http://www.fao.org/publications/sofa/en/>
- ⁷ R. N. Mgbenka and E.N. Mbah (2016). 'A Review of Smallholder Farming in Nigeria: Need for Transformation'. International Journal of Agricultural Extension and Rural Development Studies, Vol.3, No.2, pp.43-54, May 2016. Published by European Centre for Research Training and Development UK <http://www.eajournals.org/wp-content/uploads/A-Review-of-Smallholder-Farming-In-Nigeria.pdf>
- ⁸ Mgbenka and Mbah (2016).
- ⁹ Credit = 44 percent. Technology = 49 percent of female farmers and 23 percent of male farmers.
- ¹⁰ T. Olusade, D. Bukola, E. Funmi, A. Titlope (2017). 'Impact of Investments in Agriculture and Climate Change Adaptation on Small Scale Farmers in Nigeria'. Oxfam/WANEP project. Unpublished report.
- ¹¹ Mgbenka and Mbah (2016).
- ¹² Mgbenka and Mbah (2016).
- ¹³ Olusade et al (2017).
- ¹⁴ Obiechina, C.O. 2012. 'Farm input use, resource misallocation and implication for Nigeria's agricultural development.' In: A. O. Aniebo and COA Ugwumba (Eds.). Proceedings of International Agriculture Conference AN-SUIAC 2012 on Environmental concerns and agricultural productivity: Addressing the challenges of food security, pp. 2-9.
- ¹⁵ Verisk Maplecroft (2014) *Climate Change and Environmental Risk Atlas 2015*. <https://maplecroft.com/portfolio/new-analysis/2014/10/29/climate-change-and-lack-food-security-multiply-risks-conflict-and-civil-unrest-32-countries-maplecroft/>
- ¹⁶ Federal Republic of Nigeria (2015). *Nigeria's Intended Nationally Determined Contribution* (INDC). Submission to UNFCCC. INDC http://www4.unfccc.int/ndcregistry/PublishedDocuments/Nigeria%20First/Approved%20Nigeria%27s%20INDC_271115.pdf
- ¹⁷ O. E. Olayide, I. KowTetteh, and L. Popoola (2016). 'Differential impacts of rainfall and irrigation on agricultural production in Nigeria: Any lessons for climate-smart agriculture?' Agricultural Water Management Volume 178, December 2016, Pages 30-36. <http://www.sciencedirect.com/science/article/pii/S0378377416303286#bib0235> Accessed 6 September 2017.
- ¹⁸ S. I. Omofonmwan and G. I. Osa-Edoh (2008). 'The Challenges of Environmental Problems in Nigeria'. Journal of Human Ecology 23.1: 53-57.
- ¹⁹ Statistics of Nigerian Stored Products Research Institute (NSPRI). As reported in: F. Odum (2016). Nigeria: High Cost of Inadequate Food Preservation. AllAfrica / The Guardian Nigeria. 17 January 2016. <http://allafrica.com/stories/201601180787.html> Accessed 6 September 2017.
- ²⁰ DFID (2009). 'Impact of Climate Change on Nigeria's Economy'. Abuja.
- ²¹ Federal Republic of Nigeria (2015). *Nigeria's Intended Nationally Determined Contribution* (INDC). Submission to UNFCCC. INDC http://www4.unfccc.int/ndcregistry/PublishedDocuments/Nigeria%20First/Approved%20Nigeria%27s%20INDC_271115.pdf
- ²² Yield is the quantity of crop produced per unit of land cultivated.
- ²³ Olusade et al (2017).
- ²⁴ 57 percent of all households are involved in agriculture, 60 percent of male headed households and 44 percent of female headed households participate. Based on World Bank GHS panel survey of 3000 farmers, as reported in: G. Oseni, M. Goldstein, and A. Utah. 'Gender Dimensions in Nigerian Agriculture'. Policy Brief http://siteresources.worldbank.org/INTSURAGRI/Resources/7420178-1294259038276/Policy_Brief_Gender_Dimensions_Ag_Nigeria.pdf Accessed 25 August 2017.
- ²⁵ World Bank. 'Women, Agriculture, and Work in Africa'. <http://www.worldbank.org/en/programs/africa-myths-and-facts/publication/women-agriculture-and-work-in-africa> Accessed 25 August 2017.
- ²⁶ <https://www.cbn.gov.ng/out/2017/dfd/anchor%20borrowers%20programme%20guidelines%20dec%20%202016.pdf>
- ²⁷ <http://thenationonlineng.net/kebbi-78000-rice-farmers-benefit-cbns-anchor-borrowers-programme-rifan/>
- ²⁸ I. Mayaki (2016). 'Three ways to transform agriculture in Africa.' World Economic Forum. <https://www.weforum.org/agenda/2016/05/3-ways-to-transform-agriculture-in-africa/> Accessed 6 September 2017.
- ²⁹ Federal Government of Nigeria (2010-2015) Appropriation Acts, 2010-2015
- ³⁰ Central Bank of Nigeria (CBN) (2010-2015) Annual Reports, 2010-2015. CBN.
- ³¹ <https://www.premiumtimesng.com/news/top-news/244308-nigeria-needs-142-billion-meet-climate-change-target-fg.html>
- ³² Overseas Development Institute (2017). 'Approved Project Spending by Country'. Climate Funds Update.

- Accessed 25 August 2017. <http://www.climatefundsupdate.org/regions>
- ³³ Ibid.
- ³⁴ United Nations Department of Economic and Social Affairs (2015). World Population Prospects: The 2015 Revision. Medium-fertility variant. Population Division. Accessed 27 August 2017. <http://www.un.org/en/development/desa/population/theme/trends/index.shtml>
- ³⁵ Ministry of Budget and National Planning (MBNP) (2015). *Development Cooperation Report. Fiscal Year 2015*. Federal Republic of Nigeria and MBNP.
- ³⁶ Ibid.
- ³⁷ OECDStat. 'Aid (ODA) disbursements to countries and regions [DAC2a]'. Organisation for Economic Co-operation and Development. <https://stats.oecd.org/Index.aspx?DataSetCode=CRS1> Accessed 6 September 2017.
- ³⁸ Ministry of Budget and National Planning (MBNP) (2015). *Development Cooperation Report. Fiscal Year 2015*. Federal Republic of Nigeria and MBNP.
- ³⁹ Ibid. The national Development Assistance Database can be accessed here: <https://dad.synisys.com/dadnigeria/>
- ⁴⁰ International Aid Transparency Initiative. 'Spotlight on IATI Data Use: Nigeria'. <http://www.aidtransparency.net/about/partner-country-perspectives/spotlight-on-iati-data-use-nigeria> Accessed 6 September 2017.
- ⁴¹ Olusade et al (2017).
- ⁴² Ministry of Budget and National Planning (MBNP). (2015). *Development Cooperation Report. Fiscal Year 2015*. Federal Republic of Nigeria and MBNP.
- ⁴³ As of 2016, the Nigerian public sector ranks as 136th out of 176 countries on Transparency International's Corruption Perceptions Index, making it one of the most corrupt in the world.
- ⁴⁴ I. Ugboaja (2017). 'Food Over Fuel: How Buhari's Pivot Toward Agriculture Could Mitigate Nigeria's Corruption Problem'. Harvard International Review. 5 July 2017. <http://hir.harvard.edu/article/?src=ilaw&a=14538> Accessed 24 August 2017.
- ⁴⁵ Daily Trust (2017). *The big success of Lake Rice. January 6 2017*. <https://www.dailytrust.com.ng/news/editorial/the-big-success-of-lake-rice/179387.html>
- ⁴⁶ Olusade et al (2017). There is also global evidence of women paying back loans faster, as in: D. Thompson (2011). Women are more responsible with money, studies show. The Atlantic. January 31, 2011. <https://www.theatlantic.com/business/archive/2011/01/women-are-more-responsible-with-money-studies-show/70539/>
- ⁴⁷ Olusade et al (2017).
- ⁴⁸ Ibid.
- ⁴⁹ N. Francis. CBN Releases N44bn for Anchor Borrowers' Programme This Day. October 5, 2017. <https://www.thisdaylive.com/index.php/2017/10/05/cbn-releases-n44bn-for-anchor-borrowers-programme/>

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For further information on the issues raised in this paper please email advocacy@oxfaminternational.org

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