

Nigeria: AgriFin's West African Frontier



AgriFin's ecosystem approach facilitates the provision of services to farmers through digital solutions, to improve their productivity, incomes, and livelihoods in Nigeria. We engaged our research partner, Dalberg Advisors to provide an understanding of the digital agricultural landscape in Nigeria.

Context

Nigeria's dominance in the African economy is unquestionable. It accounts for about 47% of West Africa's population and has one of the largest populations of youth in the world. Nigeria also has Africa's biggest economy, is the largest oil exporter, and has the largest natural gas reserves on the continent. While its vibrant entrepreneurship ecosystem attracts most of Africa's startup funding, agtechs only receive 2% of the funds due to perceived higher risks and low returns. Digital services also need to be adapted to complex socio-economic contexts and aim to reduce inequalities. The Nigerian economy stands to benefit from the growth in the supply and usage of digital financial services.

Agriculture is a significant contributor to the Nigerian economy and a key component of the government's diversification strategy away from oil. It contributes 25% of all non-oil

government revenue with leading cash crops such as cocoa, oil, palm oil, cotton, and groundnuts. Nonetheless, the agricultural trade deficit remains large despite significant production. Between 2016-19, Nigeria's cumulative agricultural imports stood at USD 8.1 billion in comparison to USD 1.9 billion in exports (Landscape Study, 2021). Smallholder farmer households account for over 90% of Nigeria's national agricultural output. However, farmer income and productivity remain low due to a lack of access to and limited utilization of agriculture solutions such as quality inputs, training, mechanization services, access to markets, and access to credit.

AgriFin is keen to facilitate the provision of services to farmers through digital means, to improve their productivity, incomes, and livelihoods in Nigeria, more so for women. This study gives an overview of the agricultural landscape in Nigeria, the enabling environment, smallholder farmers' needs and capabilities, solutions landscape, and AgriFin's engagements and recommendations for potential digital interventions.

Smallholders' Needs and Capabilities

Smallholders predominately farm staple crops such as cassava, maize, and yam whose value chains have varying degrees of fragmentation. They often lack quality inputs, knowledge on best farming practices, and ready markets. Moreover, smallholders in key value chains face unique challenges based on the crop and its geography. Security risks such as the resurgence of Boko Haram and conflicts with herders disrupts their farming activities for some cassava, ginger and sorghum farmers. Nonetheless, these value chains offer strong potential for digital agricultural solutions and in addressing the food security and commercialization needs of the country. Medium to large agribusinesses can also be aggregation points.

SHFs have limited access to formal financial services and scarcely use them while available. Low uptake of digital financial services can be partially explained by low digital and financial literacy. Despite their minimal access to digital services like mobile money wallets, the high share of basic phone ownership presents opportunities in digital agriculture for Interactive Voice Response (IVR) and [USSD](#) technology.

Nigerian smallholders are progressively willing to adopt digital tools when offered the right support. Most farmers have some basic knowledge of using phones. The Landscape Study showed 77% of the farmers have used a mobile phone before; 81% have a voter's card, which allows access to financial services. [Hello Tractor](#), an agtech company linking tractor owners to farmers, has over the last five years enlisted over 2,000 tractors on its mobile platform and served over 40,000 smallholder farmers. However, there is a need for training and support to accelerate the adoption of new practices and techniques including the use of digital solutions. The majority of the smallholders still lack access to information, with 69% of the farmers surveyed by CGAP relying on friends and family for advice on their agricultural activities, with the local leading farmer and the leadership as the secondary source of information.

Gendered Considerations

Due to their limited agency, women in rural Nigeria face pronounced challenges around access to productive assets and autonomy over decisions. Institutional barriers prevent them from owning land and accessing agrifinance. The skills gap between men and women prevents them from capturing value and excelling in the sector. Women also have lower levels of digital literacy which creates a barrier to their adoption of digital solutions. This study highlighted that 60% of women smallholder farmers are considered to have low digital literacy, lower unemployment rates, and often dominate the lowest paying roles. The impact of this gender gap on women farmers’ productivity is more pronounced in the north, where 57% are financially excluded in the north as compared to 18% in the south.

Women will continue to be involved in agricultural activities in Nigeria and to bridge the gender gap, AgriFin is pursuing gender intentional and transformative engagements in its new programming phase. AgriFin is leveraging the use of its [Gender Transformative Toolkit](#) to equip our partners to apply a gender lens in their work and stakeholder interaction. Where possible, AgriFin will encourage partners to integrate more advocacy into their community and farmer engagement strategies.

Nigeria’s Enabling Environment

Smallholders operate within the context of an emerging digital economy, though macroeconomic conditions are unstable. A contracting economy, limited financing, and security are impacting agribusinesses’ and SHFs growth and productivity. Furthermore, weak physical infrastructure constrains farmer productivity & market access. Nonetheless, the agricultural sector has remained resilient despite Nigeria’s poor economic growth since 2015 and the adverse impact of COVID-19. Agriculture has only received 2.5% of investments since 2018; Currently, investor apprehension could reduce investments over time.

	Key findings	Implications
Policy, regulation, and governance	<ul style="list-style-type: none"> Nigeria’s macro-economic policies have been unfavorable to growth particularly in agriculture A large trade deficit and forex shortages have led to inflation and increased the price of agricultural inputs Import bans have reduced cross-border trade and increased input costs for agribusinesses DFS policies have slowed financial inclusion for the rural poor including SHFs 	<ul style="list-style-type: none"> Limited available funding for agriculture Low DFS reach leads to exclusion for SHFs
Infrastructure	<ul style="list-style-type: none"> Nigeria’s underdeveloped infrastructure is an impediment for agriculture productivity growth and the uptake of digital solutions for farmers Lack of electricity access and poor grid lead to high costs for agribusinesses and investors Inefficient roads and logistics system inhibit access to rural farms and lead to high logistics costs Absent irrigation systems and lack of modernization undermine agricultural productivity Low digital infrastructure such as lack of mobile devices is higher in rural areas and for SHFs 	<ul style="list-style-type: none"> Limited electricity hinders uptake of digital solutions Digital platforms such as SMS, IVR, etc. can enhance farmer productivity
Investment landscape	<ul style="list-style-type: none"> Nigeria’s investment landscape is highly developed in terms of attracting investments for start-ups, but agriculture remains underfunded. Other considerations include cumbersome/absent policies that deter investments Agriculture receives only 3% of raised funding Insecurity, corruption, and cumbersome policies limit appetite for investments and affect SHFs 	<ul style="list-style-type: none"> Limited funding is limiting growth for agribusinesses
Social dynamics	<ul style="list-style-type: none"> Women are excluded in engaging in the digital economy due to entrenched patriarchal systems. They are also likely to have less land tenure rights and limited leadership opportunities. Social-economic development inequities persist between the north and south 	<ul style="list-style-type: none"> Targeted interventions can increase uptake for excluded groups

Source: Nigeria Landscape Study, 2021

Digital Solutions Landscape

Nigeria’s financial solutions landscape is fairly developed with several actors as growth in agent networks; however, uptake remains low. While the credit market is fairly developed, farmers encounter a myriad of uptake challenges. Bank credit favors the formal economy locking out women and youth. Negative perceptions around banking lead them to seek alternative sources of financial services.

The agricultural insurance market is dominated by the government with a few private actors who have also seen slow uptake of the services. The government offers subsidized insurance often bundled with bank loan products that also cover SHFS. However, these products place price pressure on private actors making them unattractive to SHFs. Farmers may have access to multiple savings formal and informal channels but they are unable to maximize these opportunities to their low and inconsistent incomes. The dominance of informal channels, which are often non-digital solutions and can also limit graduation to credit and insurance. The non-financial solutions market is private-sector and well developed with increased uptake of products and services.



Source: Nigeria Landscape Study, 2021

AgriFin’s Work in Nigeria

Since AgriFin expanded into Nigeria in 2018, there have been notable achievements reaching and impacting our primary beneficiaries. We exceeded the target reaching over 300,000 SHFs which is largely attributed to our innovative partnerships. Some of AgriFin’s innovative partners such as Pula and Hello Tractor, where the provision of their single products and services evolved into the development of digital agriculture platforms. These platforms bring together service providers across the agriculture ecosystem giving smallholders access to various services and products, maximizing the impact of digital innovations on their farming activities, and thus enhancing their productivity and access to the market.

AgriFin supported Pula in enhancing the value proposition of insurance products amongst smallholder farmers by providing precision agronomy advisory services to build farmers’ resilience. We worked with [Ignitia](#) in rolling out a bundled weather and urea fertilizer service to 10,000 farmers working with Indorama, a leading urea manufacturer. [The project helped Ignitia](#)

initiate positive behavior change towards the continued purchase of urea fertilizer which is affected by the level of rainfall.

AgriFin supported Hello Tractor to update its business model and accompanying technology for SHFs to receive short term credit for tractor services payable at the end of the crop cycle along with determined terms and conditions. Along with CropIn, AgriFin and [Flour Mills of Nigeria \(FMN\)](#) piloted a suitable outgrower management platform to efficiently manage their outgrower schemes. This tool has the potential to evolve into a digital agricultural platform creating a commercial network or marketplace for other agri-value chain players.

AgroMall developed the “Transform Score” — an alternative credit scoring mechanism and accounting method to enhance their adoption of agronomic practices, production outcomes, and transaction histories. Along AgriFin and CGAP, Agromall designed a pilot that would enable them to refine the scoring algorithm. While the pilot showed promising results, it revealed that the deeply entrenched social norms limit women’s access to credit in Nigeria.

Adjusting to the Pandemic

In other cases, partnerships in Nigeria have been opportunistic based on the market dynamics or global/natural occurrences such as the COVID-19 pandemic. The pandemic led AgriFin to conduct an [emergency response](#) providing tailored and gamified COVID-19 information to Nigerian smallholder farmers on a toll-free number via IVR in local languages through a partnership with Viamo. The engagement enabled AgriFin to assess [the impact of digital channels](#) on farmers’ behavior during an emergency response effort..

Further Opportunities

Currently, Nigeria is harnessing [a fraction of its digital potential](#). Given the role of the agricultural sector, ecosystem players should seek collaborative opportunities to scale existing agtechs, address credit and supply chain solutions. Crowding in innovative solutions through innovation challenges and sandboxes and leveraging institutional service providers can help tackle some of the highlighted challenges.

Gender and climate concerns are central to AgriFin’s programming. We will continue to facilitate partnerships between aggregators and funders to incentivize farmers’ behavior change on climate smart practices and support women farmers to overcome persistent barriers.

Related Articles

- [Social Networks and Agricultural Insurance- Learning from the Pula Referral System.](#)
- [For AgroMall, Extending Credit to Women Requires First Convincing Men](#)
- [Landscaping of the Digital Agricultural System in Indonesia.](#)