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Agro-Inputs Distribution Strategy: Development of input distribution networks in Sub-Saharan Africa



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Background

Advances in agricultural research have led to numerous improved technologies in plant and animal genetics, crop agronomy, disease and pest management practices, soil fertility enhancement inputs and water management practices that have transformed agriculture globally. However, these agricultural advances elude much of sub-Saharan Africa not because the technologies do not work, or are non-existent but because they are confined to the shelves of research institutions even as smallholder farmers continue to use traditional technologies that condemn them to low productivity levels that fuel the continent's cycles of poverty and hunger.

Although African national agricultural research institutes (NARIs), universities, and CGIAR centers have developed numerous improved and locally adapted technologies, the challenge is that the technologies do not reach the hands of smallholders who form the majority farmers in sub-Saharan Africa. Moreover, the public extension systems required to inform farmers on the value of improved seed and other crop management practices are poorly facilitated. Thus, crop yields in most of Africa have stagnated at approximately one-third of that produced by farmers in other developing regions of the world.

Most smallholder farmers live in remote rural areas with poor infrastructure, making input delivery expensive. Smallholder farmers are further limited by their input purchasing capacity, influenced by low and irregular cash flows, lack of access to savings and credit products, and lack of input purchase options¹. The absence of both guaranteed markets for their produce and an effective extension service to enable them optimally use the inputs also contribute to farmers' reluctance to invest in improved inputs.

Developing Agro-dealer Networks in Sub-Saharan Africa

Following initial agro-dealer development pilot initiatives funded by The Rockefeller Foundation, AGRA took the work to scale in sub-Saharan Africa with the objective of creating numerous points of sale in rural areas close to smallholder farmers. This strategy enhances availability, accessibility and affordability of inputs by reducing the distance farmers travel and by increasing farmer awareness through shops within the villages. Besides the major towns, AGRA's focus was on developing agro-dealers in smaller towns and villages where they were previously non-existent.

AGRA worked with a small number of specialized service providers to identify and train potential agro-dealers, drawn from existing traders willing to diversify into the agro-inputs business, and from interested people, among them lead farmers, retirees, teachers, and extension workers. The basic training comprised business management, product knowledge, and safety in use. To enable them establish shops, small start-up grants of US\$200–500 were provided towards acquiring basic shop infrastructure on condition the trader matched it with funds to buy seed stocks. In some cases, credit guarantee funds were put in place to leverage commercial bank loans or supplier credit to enable agro-dealers to acquire sufficient stocks in good time. The agro-dealers were then formally linked to agro input suppliers who quickly saw their value in providing distribution channels for their inputs — seeds, fertilizers, and crop protection products. Start-up seed companies were thus able to put their products on the market quickly, while fertilizer suppliers were able to reach new areas.

In due course, input suppliers worked with the agro-dealers and government extension workers to establish demonstration plots (demos), and hold farmer field days and input fairs in rural areas they previously had been unable to penetrate on their own. This contributed to farmer awareness and increased demand for inputs.

Some seed companies in West Africa have initiated their own agro-dealer networks in areas where they see the need. They built portable seed kiosks and identified local farmers to serve as stockists and demonstrators. Over time, the farmer would pay back the cost of the kiosk and eventually own the business. One seed company in Mali is evaluating the feasibility of transforming existing mobile money kiosks into multi-service centers that could add seed and extension information through information and communication technology (ICT).

The existence of agro-dealers in farming communities has presented them with an opportunity to serve as a market outlet for smallholder farmers who produce small marketable surpluses but cannot easily find a market. Some enterprising agro-dealers have established commodity aggregation centers and AGRA is partnering with them to train and link them to larger buyers. This provides an alternative income stream to agro-dealers and enables them to grow their input businesses.

Since 2007, AGRA has developed approximately 25,000 agro-dealers in 18 countries, through whom a total of 404,000 MT of seed and over 1.1 million MT of fertilizers had been sold to farmers by 2018. They have greatly enhanced access of smallholder farmers to essential input and output markets needed to increase production. The figure below illustrates the steps AGRA has taken to develop the capacity of agro-dealers and the next frontier, as outlined in this strategy.

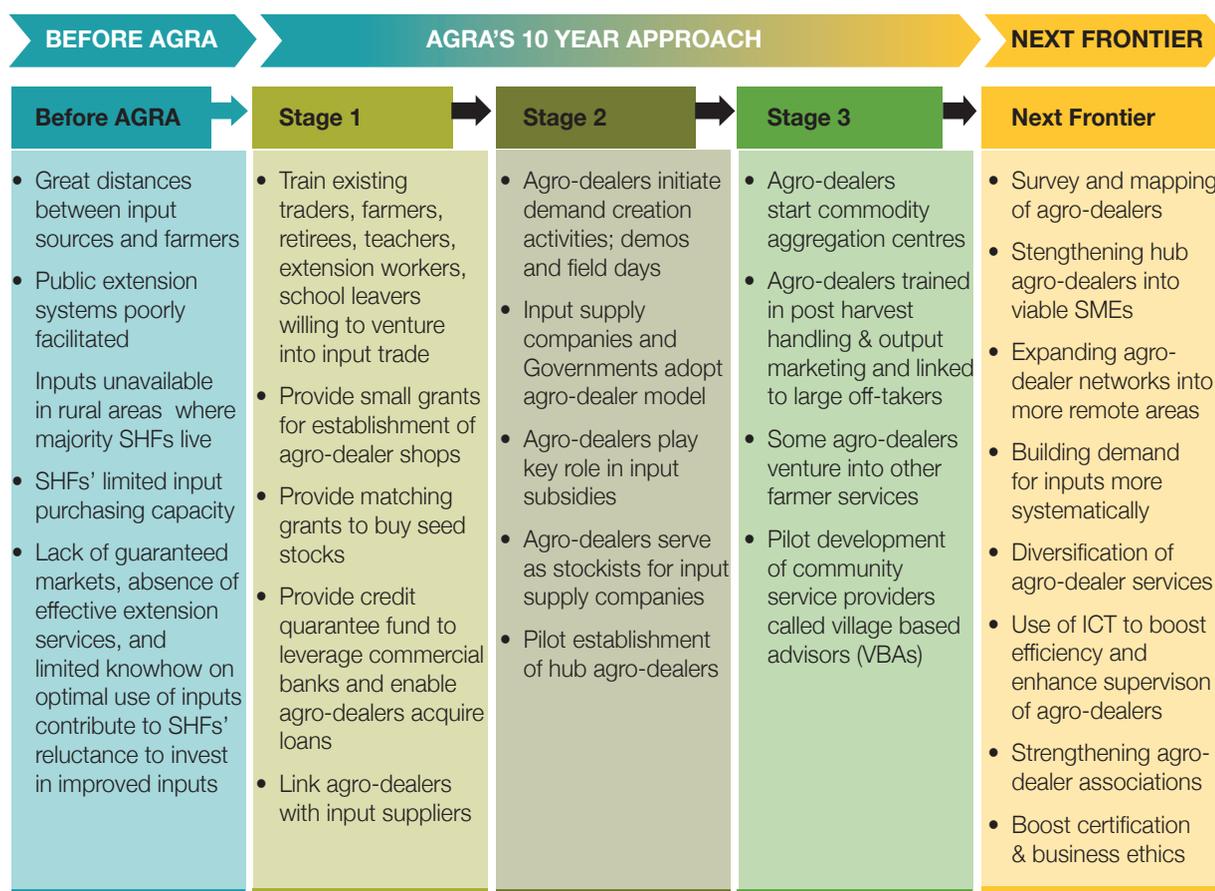


Fig 1: Evolution of agro-dealership and the next frontier for innovation, scale, and competitiveness

During his acceptance speech for the Africa Food Prize awarded at the African Green Revolution Forum (AGRF) convening in Nairobi, Kenya, in September 2016, Dr. Kanayo Nwanze, former IFAD President, said: *“There is now a clear consensus about the vital role that networks of certified rural small and medium enterprises can play in delivering inputs and knowledge, especially to smallholder farmers who are beyond the reach of more formal providers. These enterprises are therefore key actors in our efforts to transform African agriculture....”*

As with every endeavor, success comes with its own challenges, while new constraints also emerge. These need to be addressed in order to strengthen the agro-dealer networks, improve business sustainability, and enhance efficiency and service delivery to farmers in the target countries. The challenges encountered to-date include:

- Wide geographical spread and poor rural infrastructure, making it difficult for input suppliers to reach all agro-dealers.
- Weak business linkages between input suppliers and agro-dealers due to mistrust and poor business ethics among some agro-dealers.
- Weak agro-dealer associations and regulatory agencies, contributing to input counterfeiting.
- Limited ability of shop attendants to technical advice on the use of inputs.
- A tendency for agro-dealers to become concentrated in towns and trading centres, while remote rural areas remain under-served.
- Limited awareness of - and demand for - inputs among smallholder farmers, restricting agro-input business opportunities in rural areas.

Nevertheless, the benefits of having a private, demand-driven rural input supply system far outweighs the cost of having none. Moreover, each of these challenges has a potential solution. The following section outlines strategies to improve inputs distribution and agro-dealer networks.





Strategy to Increase the Density, Effectiveness and Sustainability of Agro-dealer Networks

It is now broadly agreed that agro-dealers play a crucial role in the distribution of improved seeds, fertilizers, and other technologies, enabling rural-based smallholder farmers to access the technologies cost-effectively. They can also serve as a form of private extension advice, and enhance farmer awareness of good agronomic practices. Agro-dealers likewise often play a key role in commodity aggregation, thus reducing farm level post-harvest losses and linking farmers to structured markets. Therefore, AGRA believes it is essential to continue to expand the reach of agro-dealers, improve efficiency of their service delivery, and to strengthen the sustainability of their businesses. The following activities are being implemented as part of an integrated package of support to rural input supply.

Surveying and mapping agro-dealer shops

This includes needs assessment and characterization of existing agro-dealers according to their business size, helps to identify under-served geographical areas and enables the targeted development of new agro-dealers in those areas. The exercise also identifies existing “hub” agro-dealers (agro-dealers which serve as wholesale providers of inputs to a number of smaller shop owners), potential hubs, and their needs for support to strengthen their businesses. Such surveys also capture information on input suppliers, aggregation centers, warehouse facilities, community extension workers and farmer organizations.

Strengthening hub agro-dealers

The concept of building the “missing middle” revolves around identification and strengthening of hub agro-dealers which serve as distributors of inputs to smaller, retail agro-dealers. AGRA employs a set of criteria for identifying existing agro-dealers as potential hub agro-dealers. Hub agro-dealers then serve as the main contact points for input suppliers and commodity off-takers, and in turn serve as the source of inputs for more remote, retail agro-dealers. They are trained in more advanced business management, post-harvest handling and commodity trade, as well as basic extension methodologies. These training initiatives are tailored to address local needs in each country and include knowledge on specific ICT tools.

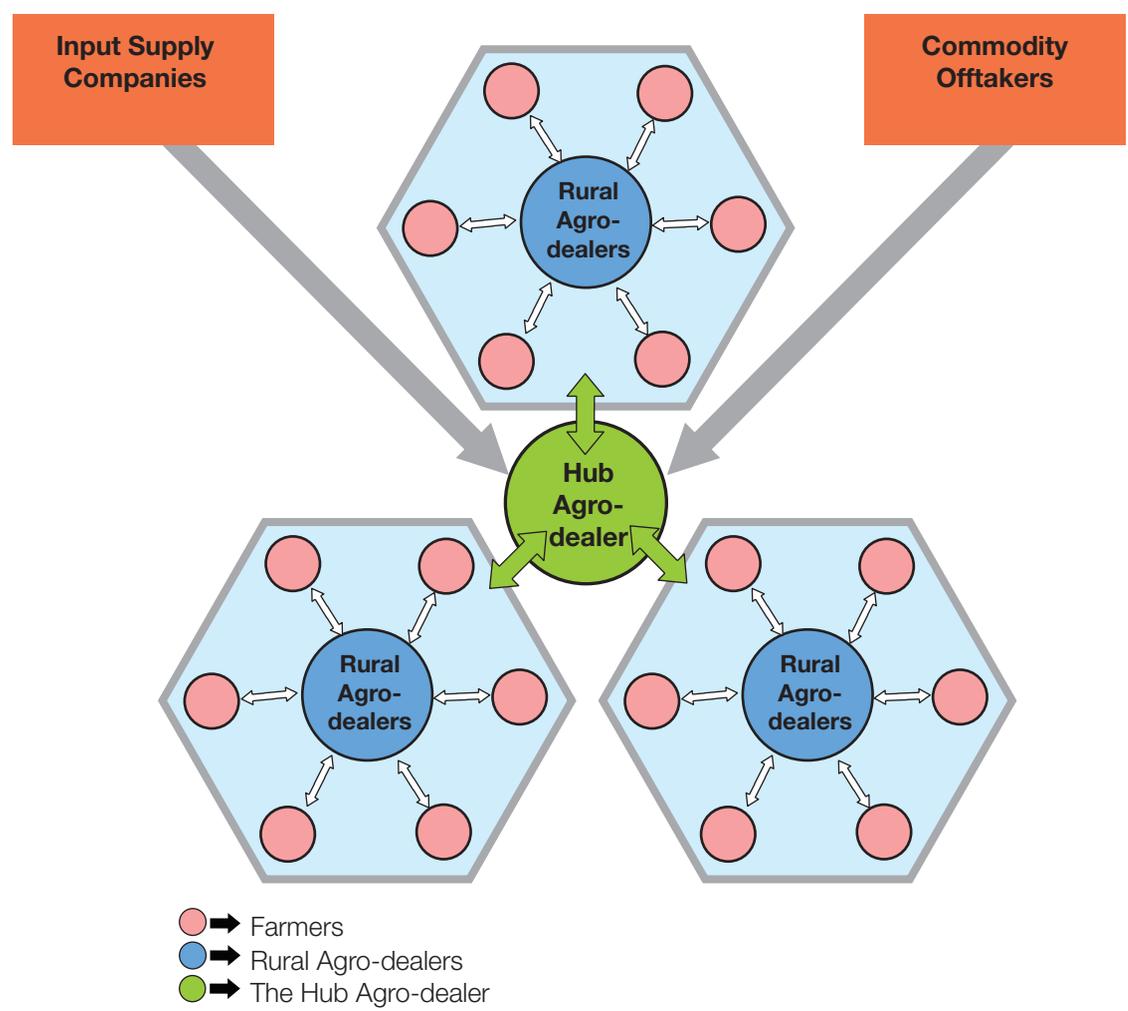
Expanding agro-dealer networks

AGRA works with the hub agro-dealers to expand the network of new retail agro-dealers by encouraging each hub to identify and establish business linkages with 10 to 50 retail agro-dealers, depending on farmer populations and the volume of business. New retail agro-dealers receive basic training in business management and product knowledge.

AGRA is implementing its strategy for development of input supply networks in close conjunction with its strategy for private sector-led extension services, which relies on the recruitment of village-based advisors (chosen by their peers) to serve in an advisory capacity and as a point of contact for the introduction of new technologies. As demand for these technologies increases, some of these VBAs are being re-tooled and linked into the existing network of retail and hub agro-dealers in order to extend services to more remote areas. Small matching grants are used to enable them to establish shops in rural areas, with an emphasis on extending this opportunity to youth and women. Across this network of hub agro-dealers, retail agro-dealers, and VBAs training events will emphasize business ethics to strengthen integrity and mutual trust along the input supply value chain.

A key activity along the entire distribution chain is **strengthening and formalizing** business linkages. This helps to improve trust, enhance traceability, and minimizes counterfeiting. An AGRA database indicates which retail agro-dealers are linked to which hubs. This is illustrated in Figure 2:





This ecosystem of private input suppliers is increasingly being recognized as a key element in increased smallholder farmer productivity in Africa. As reported by Harvard University and the World Bank: *“Enabling small, local firms to supply or distribute goods and services to/from larger enterprises creates more efficient supply chains. At the same time it maximizes development benefits by helping local companies to grow and create jobs.”* (https://www.hks.harvard.edu/m-rcbg/CSRI/publications/other_10_MDC_report.pdf).

Building demand for inputs

To contribute to farmer awareness of the value of new technology, a system of on-farm demonstrations has been designed in order to foster learning and adoption of new technologies. This is leading to a greater understanding of African farmers as rational consumers of technologies, provided they are informed of their usefulness, the technologies are available locally, and are affordable. As stated by the OECD: *“Technological developments are rapidly evolving and information on the costs and benefits of adopting technologies in agriculture is often imperfect. Thus, the choices on technology adoption...and the speed and extent of adoption varies considerably among farmers. Farmers will invest in and implement sustainable technologies and farm practices if they expect the investment will be profitable, if they have the right education, information and motivation”* (<http://www.oecd.org/greengrowth/sustainable-agriculture/2739771.pdf>).

Figure 3 illustrates the learning and adoption curve.



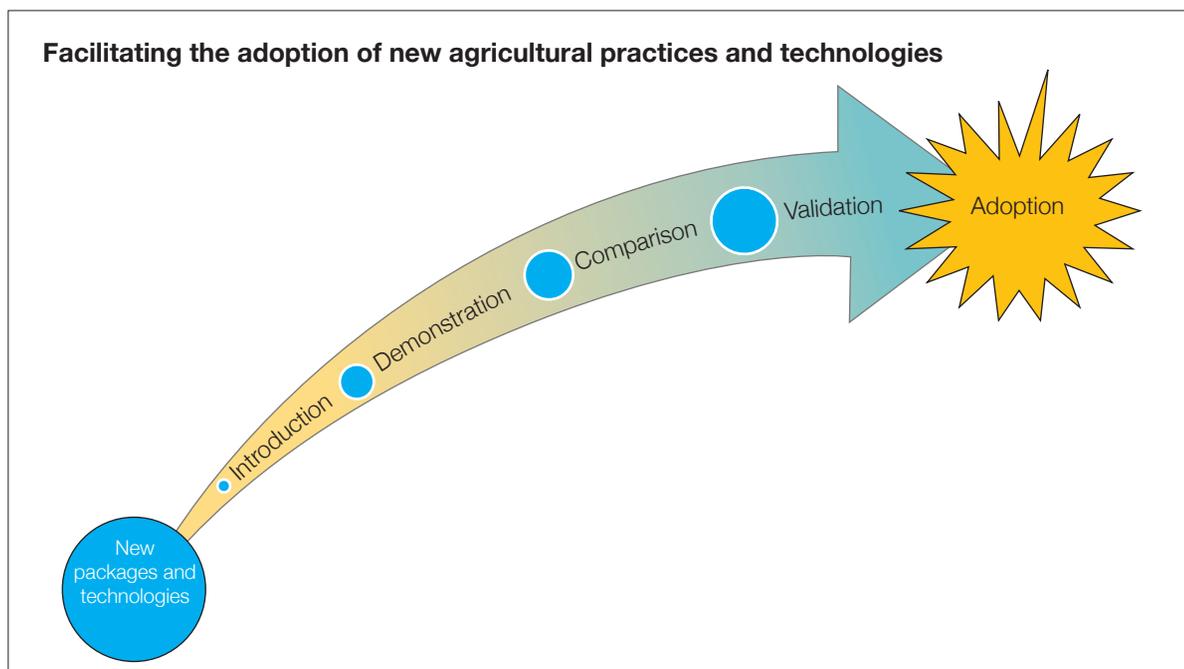


Fig. 2: Learning and adoption curve

Throughout the entire process, ensuring farmers are well-informed remains key. The strategy for informing farmers comprises three tiers of demonstrations: hub agro-dealers, retail agro-dealers, and input companies.

Tier 1: Hub agro-dealers

The first tier is represented by hub agro-dealers. The hubs work with input suppliers and lead farmers or farmer organizations to set up “commercial” demos of one acre or larger. These demos are critical to convincing farmers that the technologies being demonstrated are feasible. Participating farmers provide the land and labor and the harvest belongs to them. Hub agro-dealers and input suppliers provide the demo kits and technical advice. Large field days are organized around these plots and farmers mobilized in collaboration with government extension services and VBAs. AGRA also uses these demos to conduct cost-benefit analyses of the technologies being promoted and generate useful information for extension work and farmer training.

Tier 2: Retail agro-dealers

The second tier of demos are carried out by retail agro-dealers in collaboration with hub agro-dealers, input suppliers, local extension workers, and VBAs, and consist of smaller plots of 10 m × 10 m. In addition to using farmers’ fields, agro-dealers may identify other sites that may be communal, for example, schools, religious centers, trading centers, roadside plots, churches, etc. This tier will be used to introduce new technologies and enable farmers to select technologies of their choice. Public researchers may use these plots for participatory farmer selection of new varieties. Smaller field days are held involving farmers from surrounding communities.

Tier 3: VBAs

In the third tier of demos, input companies are solicited to provide small, 50-100 g packs, which retail agro-dealers and VBAs distribute to farmers for testing on their own fields. These demos are sometimes referred to as “baby” demos, while the Tier 2 demos are “mother” demos. VBAs and agro-dealers are encouraged to follow up and report on the uptake of the small packs by farmers.





Diversification of Agro-dealer services

“With the presence of people like Nkatha (a hub agrodealer) farming to me is now a business. She does land preparation for us, we buy the seeds and fertilizers from her shop, and after harvesting, we sell our produce to her. Our lives are changing. This season I am expecting to harvest 70 bags of sorghum where I previously harvested 10 bags.” John Mwiti, a farmer in Tharaka Nithi, Kenya, 2015.

In addition to input and output marketing, agro-dealers in some cases offer additional services to farmers, including spraying and pest control, plowing and mechanized maize shelling in Kenya, and mechanized rice harvesting. These are taken to scale, where feasible, by encouraging more agro-dealers and facilitating them to provide the services.

Agro-dealers also sell other innovative products such as solar electricity, solar irrigation systems, and energy efficient stoves. These products are transforming rural lives while providing alternative income streams for agro-dealers. Such simple mechanization schemes and innovative product offerings also represent one avenue of attracting more youth into agro-dealership.

Use of ICT

To boost efficiency and enhance supervision and follow-up, AGRA promotes the use of ICT in the entire agro-dealer network, with training offered to enhance this. Increased use of ICT is envisaged in: a) mobile money use throughout the business; b) recording GPS coordinates of agro-dealers in the network, mapping and databases; c) use of IT platforms to monitor business transactions, including demand estimation and volumes moved; d) accounting, record keeping, and generating financial statements; and, e) use of point-of-sale and scratch technologies to fight counterfeiting.



Agro-dealer Associations:

Associations have been established in some countries, but require strengthening. AGRA support to these associations is targeted towards developing strategic business plans, better governance, access to financial services, and the provision of business development services for members. The use of some ICT products will likewise be explored as an additional source of income for associations.



VISUAL AIDS

Input Distribution Interventions

