

## *Whither Private Extension Model? Private Extension and Productivity of Smallholder High Value Agriculture Farmers in Kenya*

In 2018, BIF piloted two contract farming interventions that involved the provision of private extension services. In these two interventions, BIF's focus was on the avocado and mango value chains. BIF collaborated with a start-up processor of avocado oil for export and a large mango fruit pulp processor to organise farmers into groups that would enable them to directly contract the farmers. The offtakers were then expected to provide extension services to increase farmers' productivity.

From the lessons learned, BIF has reoriented its approach to consider alternative forms of extension service provision, including greater engagement with public extension systems. This case study describes the rationale for providing private extension, the implementation, the impact achieved, and the lessons learned. This will be especially useful for stakeholders in the value chain, including offtakers, extension service providers (both public and private), inputs suppliers, and stakeholders considering implementing similar strategies.

### **Avocado and mango interventions**

BIF's interventions were structured to embed extension services in produce purchase activities. BIF's approach is based on the understanding of the current provision of extension in the country<sup>1</sup> and the need for a reformed extension system to one that is cost effective, responsive to farmers' needs, broad-based in delivery, participatory, accountable and sustainable. For this, BIF produced competency-based training modules focused on the specific value chains. For this, BIF adopted an approach by which the market 'offtaker' was already identified.

### ***What impact has the farmer organisation and extension service provision has?***

There has been a significant improvement as a result of the extension services provided by BIF. 58% of farmers are now pruning their trees compared to 19% at baseline, while 78% of the farmers are already applying manure/fertiliser trees compared to 57% at baseline. It is too early to assess the impact of the improvement in agronomic practices on productivity but this will be measured in the coming production season.

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<sup>1</sup> Kenya's small farmers have traditionally benefited from two major types of extension systems. The first is the government extension system whereby the ministry in charge of agriculture has played a leading role. The second type of extension system includes the commodity-based systems run by government parastatals, outgrower companies, and cooperatives. (Milu & Jayne, 2006)

***New groups formed and old ones strengthened to increase access to services and markets.*** Specialised production groups and clusters were formed to engage directly with offtakers as fruit suppliers. BIF linked the new farmer groups to offtakers to negotiate contracts to supply fruits at the end of the season.<sup>2</sup> Twenty-eight new groups were formed bringing together 932 new farmers. At the Coast, in the locations targeted, it was the first attempt to organise mango farmers into groups. In Central Kenya, the number of groups supplying avocados to the offtaker increased by 33% and the number of farmers by 72%, albeit from a small base of 460 farmers. Formation of new groups also enabled the avocado offtaker to expand sourcing into new counties in Central Kenya.

***Training modules developed to guide instruction.*** BIF facilitated the development of training modules to address the problem of inadequate knowledge of avocado production and farmer organisation. The modules included information on commercial varieties and good agronomic practices. These have been formatted for submission to the Kenya Technical and Vocational Education and Training (TVET) Curriculum Development Assessment and Certification Council (CDACC) for assessment and certification. Further to which, they will be shared with agriculture training and extension institutions for adoption.

***Better trained trainers.*** Consultants engaged by BIF conducted training of trainers (ToT) sessions to build the capacity of technical assistants to effectively support offtakers and input suppliers.

***Behaviour changes observed.*** BIF catalysed the hiring of agronomists and technical assistants by partner offtakers to build capacity of the companies to reach farmers' groups with extension education and training. Some of these TAs were retained by the offtakers after BIF pilot; one offtaker is currently recruiting for a replacement to one who moved.

<sup>2</sup> At the coast, excessive flooding negatively impacted the intervention season. There was significant spoilage of mangoes due to heavy rains and poor infrastructure that made accessibility of most growing areas difficult (trucks were not able to reach farmers in largely remote areas).

### **Lessons learned - organising farmers and providing extension services**

Based on BIFs experience, we recommend that anybody implementing similar interventions consider the following key points:

#### **Time and type of provider is key to success.**

Agricultural extension is a resource-intensive service and has faced setbacks in Kenya mainly due to past top-down extension approaches and inadequate resources for field extension agents to reach farmers. Provision of extension services requires long-term and systemic engagement, and the private sector approach has proven less effective in the mango and avocado value chains because of limited reach, high (uneconomical) costs, misaligned incentives, mistrust between providers and recipients, and a less receptive sociocultural institutional environment. BIF found that even in cases where private players provided the services, state actors remained the most important and preferred players with the infrastructure and networks for greater outreach. Generally, Kenyan farmers still trust information delivered by state agencies more than non-state actors, especially those with commercial interests.

**Difficult access to farmers.** Mobilising mango and avocado farmers without the buy-in of the county government is a lengthy process and progress can be impeded without government support. Buy-in is critical at two levels of government: the National and County Government administrative and technical structures. The process is time consuming and expensive.

**Limited reach.** Where there is limited or no level of organisation and small farmers are dispersed across a large area, such as the mango and avocado value chains, the level of effort required to engage them directly is too high and expensive for a short-term intervention.

**An aging and barely literate farming population.** Smallholder fruit farmers in both value chains are generally old and have low levels of literacy. (BIF found the average farmer is more than 55 years old). Low knowledge and absorptive capacity therefore limit their capacity to engage effectively with service providers and markets. More intensive and longer engagement is necessary for impact.

**Misaligned incentives.** Extension education is a public good and the mango and avocado value chains serve different market segments and players. Whereas the cost of providing extension is private, its benefits are socialised; therefore, the private sector has little incentive to invest in providing services whose benefits are not

exclusive them. While providing extension services may be of greater interest and more beneficial to fresh produce exporters, they buy only about 20% of the farmers output; the remaining 80% is left to largely unorganised market segments whose players are least interested in farm productivity and quality. While there are mechanisms to share in the cost of extension services provision with other market players, these are underdeveloped in Kenya's fruit value chains and beyond the scope of the BIF intervention.

#### **Why did BIF provide extension training?**

The term "extension" means 'advisory and other services' that help rural families to make the best possible use of the productive resources at their disposal. Agricultural extension has been the main source of information for small scale farmers on issues such as patterns in crop prices, new plant varieties, crop management, and marketing. Smallholder farmers not only require advice to increase farm productivity, but also advice on a diverse range of rural development options including markets, value addition, and diversified income opportunities.

The best ways to deliver extension services to farmers remain a controversial subject, with a clear dichotomy between supports for public or private provision. Numerous dissemination methods and approaches have been tried to avail information to farmers, including field days, mass media, information desks, farmer field schools, training and visit, demonstration, common interest groups, agricultural shows and exhibitions. However, limited success has been realised in terms of successful technology adoption; which is attributed to declining numbers of extension officers and inadequate infrastructural support. It is on the basis of this understanding that alternative methods of extension provision are being tried; among which are private sector-led and electronic-led (e-extension) services.

Drawing from an analysis of successful cases, BIF piloted the private sector extension model in the fruit value chains with the aim of increasing farmers' access to training and advisory services, and therefore farm productivity. While positive changes have been observed, a myriad of challenges remain to make the private model effective. It however is too early to make any conclusive statements on the effect and/or impact of the interventions.

#### **Who did the training target?**

The training design targeted the following:

- Company agronomists
- Company technical assistants
- Smallholder farmers

Participating companies, located in the Central and Coast regions of Kenya, included:

Firm	Location	Size	Ownership	Main customers	Products
A	Coast	Large	Kenya owned	Domestic hospitality, institutions, retail	Blended fruit juices, concentrate
B	Central	Small start-up	Kenya owned	Europe	Avocado oil

**What did the training cover?**

- Aspects of production – Good agronomy practices
- Aspects of marketing
- Farmer organisation

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