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## Agro-dealer and farmer COVID-19 survey

April – June 2020



- In brief:**
- The researchers interviewed 973 crop farmers, 99 dairy farmers, and 483 agro-dealers to help assess the impacts of COVID-19 on smallholder farmers and other actors across the agricultural value chain.
  - The researchers make several findings, including that a majority of farmers report financial distress and agro-dealers were seeing lower footfall traffic.
  - However, despite this, crop farmers seemed optimistic about their forthcoming harvests.
  - Based on the findings, the researchers make several recommendations for policymakers on how to better support the agricultural sector and provide regularly and timely data to farmers in the future.

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## Background and context

Between late April and early June 2020, Precision Agriculture for Development (PAD) interviewed 973 crop farmers, 99 dairy farmers, and 483 agro-dealers registered to the MoA-INFO service in Kenya. The results of the survey are intended to assist policymakers and the development community at-large to more accurately assess and respond to the impacts of COVID-19 on smallholder farmers in particular, and other actors across the agricultural value chain more generally.

In 2018, PAD launched MoA-INFO, a free two-way SMS platform developed in collaboration with the Kenyan Ministry of Agriculture. The impetus for the service was the national crisis stemming from Fall Armyworm (FAW) infestation. As MoA-INFO matured, general advisory content has been added to service a range of crops, and agro-dealers have been recruited to the platform to provide them with information so that they are able to better service their customers.

MoA-INFO now services approximately 367,000 farmers and 1,246 agro-dealers across all 47 Kenyan counties. The service empowers farmers and agro-dealers with information on input use, horticultural techniques and pest management to optimise the cultivation of maize, beans, Irish potatoes, sweet potatoes, pigeon peas, bananas, tomatoes, and sorghum, in addition to information related to monitoring and addressing FAW.

In 2019, PAD began forming relationships with dairy cooperatives, with the intention of eventually developing and implementing a digital advisory service similar to MoA-INFO. The farmers interviewed for this survey came from two cooperatives — Wakulima Farmers in Nyeri County (Central Region) and Kabiye Dairy Farmers Cooperative Society in Nandi County (Rift Valley Region) — which were chosen for their size and in order to ensure the sample was balanced across the two primary dairy-farming regions in the country.

## Method and sample characteristics

Sample frame	No. Surveyed	Counties represented	% male	Avg. age	Other demographic characteristics
Crop farmers	973	44	59%	41	78% grow maize as primary crop
Agro-dealers	483	40	73%	48	Avg. of 2 employees and 1.3m Ksh in annual sales
Dairy farmers	99	2	59%	41	58% Kabiye DFCS (Rift Valley) 42% Wakulima Farmers (Central)

## Findings

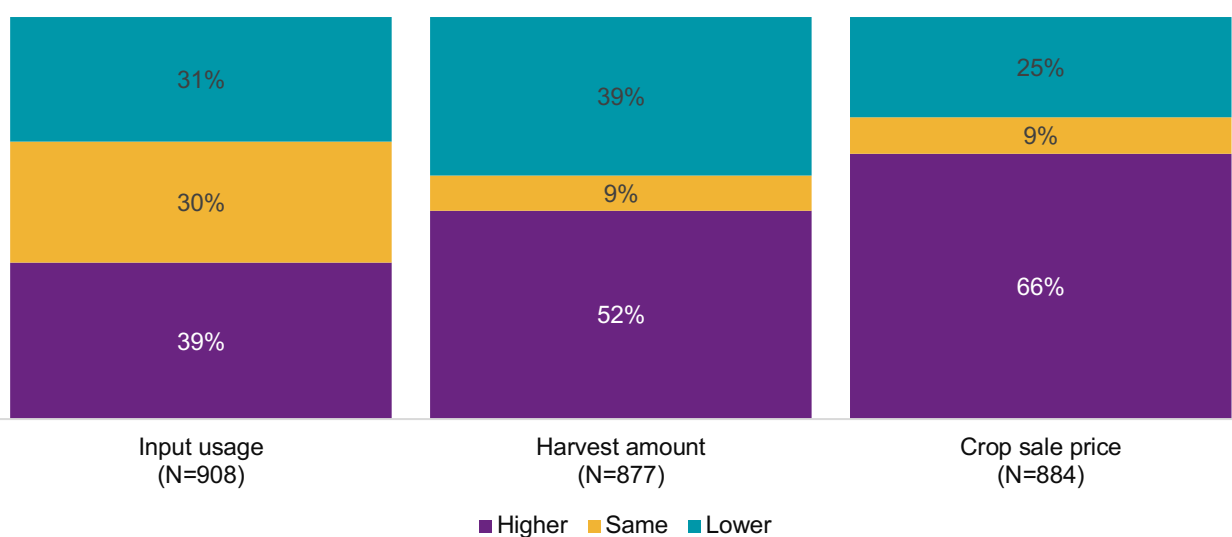
### A majority of farmers report financial distress and food shortages

At an aggregate level, 84% of dairy and crop farmers interviewed reported an increase in the price of maize. While price increases are not uncommon at this time of year (the 'lean season'), the reported effect was particularly dramatic: 86% of farmers reported difficulties in buying food due to market changes, and 50% reported reducing the size or number of household meals. Moreover, 74% of dairy and crop farmers reported having to eat into savings, and 54% reported borrowing money in the last 30 days, to cover living expenses. These patterns of reported dis-saving and borrowing may limit farmers' investment budgets and demand for inputs in the next agricultural season.

## Farmers are optimistic about production, but disruptions were observed in agricultural labour markets

In better news, 52% of farmers interviewed reported that they expect a more bountiful harvest than they did in the previous year; 66% reported that they expect to sell their produce in the market at a higher price; and just 14% reported that they expect not to be able to sell part of their harvest. Crop farmers indicated that expectations of improved harvests were premised on improved rainfall, as well as higher observed market prices, which led farmers to expect higher prices for future harvests. A majority of crop farmers (86%) reported having storage space which may enable them to more readily withstand potential market disruptions.

**Figure 1: Expectations: Inputs, harvest and prices**



However, 34% of dairy and crop farmers reported hiring workers for fewer days to do work on their farm versus the same time last year. At the same time, 30% of all farmers reported working fewer days on others' farms. This suggests disruptions to the agricultural labour market, which, if continued, may further exacerbate the financial distress currently experienced by many farmers.

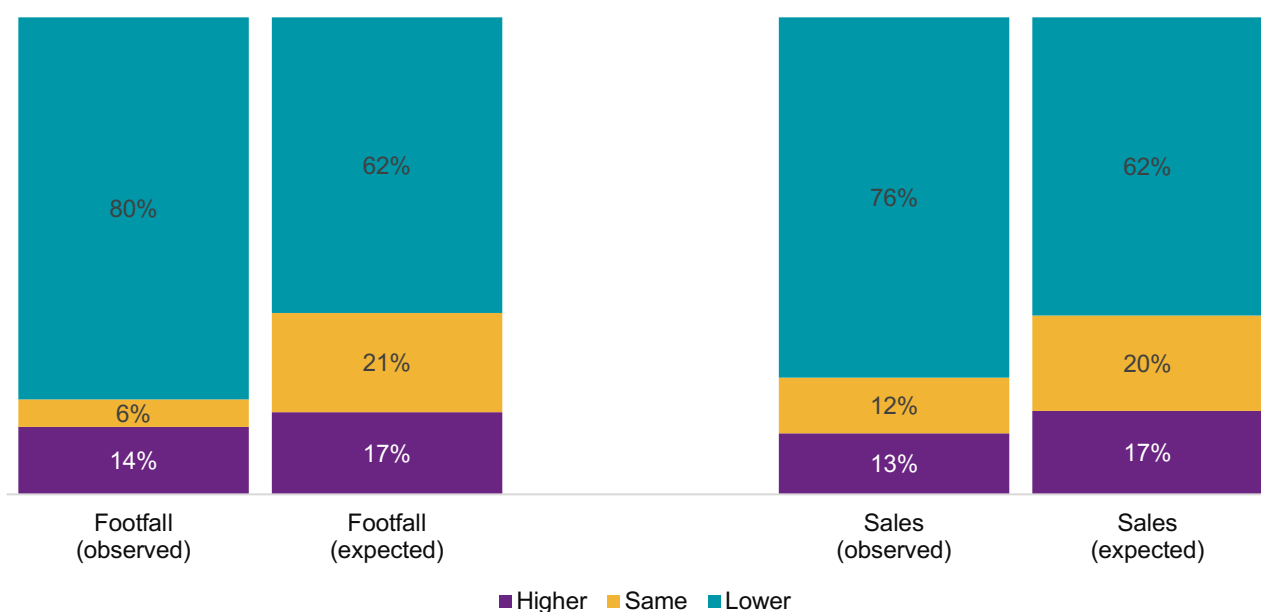
Female crop farmers reported greater food insecurity than their male counterparts across several measures: compared to male farmers, female crop farmers reported that household members reported spending fewer days on their own farms and paying higher prices for fertiliser. Female crop farmers were also significantly more likely than their male counterparts to report that they had had to rely on assistance from family to cover living expenses and having to reduce the size or number of meals served in the 30 days prior to being surveyed.

## Kenyan agro-dealers report closing shops earlier, lower foot traffic, and revenues

A COVID-related challenge confronting farmers in Kenya is a reported reduction in working hours on the part of many agro-dealers. While only 3% of surveyed agro-dealers reported closing their stores entirely, a majority (65%) of agro-dealers reported closing between 4-6pm in the seven days prior to being surveyed, earlier than the typical closing hours of 6-8pm.

While decisions to close early may be partially attributable to the Kenyan Government's 7pm-5am nationwide curfew which was in place while the survey was in the field, changes in reported foot traffic and sales suggest that agro-dealers have not been able to meet farmer demand across fewer hours: 80% of agro-dealers reported an overall decrease in footfall and 76% reported lower sales relative to the same month last year. Furthermore, 62% of agro-dealers interviewed reported that they expect future footfall to continue to be low, and the same number reported low expectations for future sales. Overall, just over a quarter of agro-dealers (27%) reported that they foresee being unable to meet farmer demand.

**Figure 2: Lower footfall and sales obs. and expected (N=483)**



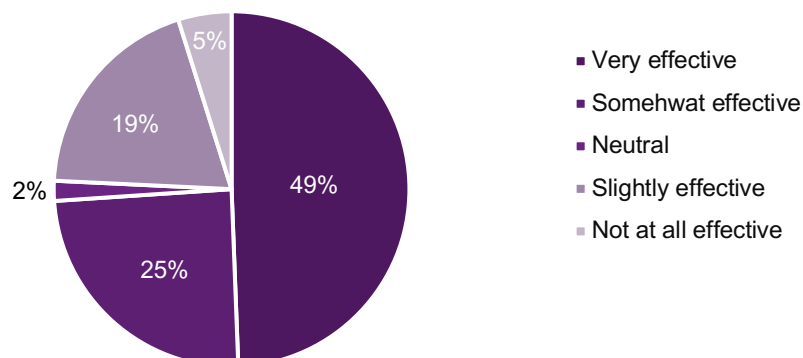
The most common reason offered by agro-dealers for diminished farmer footfall - cited by 81% of agro-dealers interviewed - was that farmers had insufficient resources to purchase inputs. Agro-dealers have tried to address this perceived constraint on business by extending credit to trusted farmers. Fifty-four percent of farmers surveyed reported increased prices being charged by suppliers and, in turn, 47% reported having to increase the prices they charged to farmers.

Increases in input prices are corroborated by crop farmers: of the 35% who purchased fertiliser, 44% reported price increases, and of the 19% who reported purchasing pesticides, 50% reported a price increase. While only 6% of farmers purchased seeds, 58% of these farmers reported price increases.

### **Strong knowledge of COVID-19 symptoms and prevention, interest in digital updates**

Overall, 63% of agro-dealers reported changes in operations due to COVID-19, the two most commonly reported were availing farmers of hand washing options (50%) and encouraging mask use (34%).

**Figure 3: Perception on the effectiveness of social distancing measures (N=330)**



While both farmers and agro-dealers have encountered economic challenges related to COVID-19, there nonetheless appears to be broad agreement that, from a public health standpoint, government measures constitute the right course of action: 73% of dairy and crop farmers assessed government actions as “very effective” or “somewhat effective” in mitigating the spread of the virus. Seventy-three percent of agro-dealers and 70% of all farmers said that they feared contracting the virus, and 33% of agro-dealers named loss of wage income as a concern.

Response	Amount
Fear contracting virus themselves (%)	70%
Fear family member contracting virus (%)	48%
Request digital updates related to COVID-19 (%)	86%
Request public health updates (% of total who requested updates)	77%
Consider gov. rules “very” or “somewhat” effective (%)	73%
Top 3 symptoms named	Fever (87%) Dry cough (66%) Difficulty breathing (55%)
Top 3 listed preventative behaviors	Social distancing (84%) Use of mask (64%) Handwashing w/ soap (63%)

## Recommendations

While many farmers remain optimistic about future harvests, there are signs of labour and input market disruptions, and increasingly stressed household consumption. Taken together, the data collected to date suggest several potential strategies to insulate smallholder populations and agricultural value chains that rely on smallholder productivity from the damaging impacts of COVID-19:

- **Transfers and financial assistance.**

Such assistance will help to insulate poor farming households from the effects of increased market prices for maize flour and other foodstuffs, and help sustain demand for agricultural inputs to support the forthcoming planting cycle. In particular, a combination of targeted financial support (including

loans, cash transfers, and wage increases) and direct provision of agricultural staples (i.e., wheat, rice, and pulses) at the household level would go a long way toward relieving the financial distress and consumption difficulties faced by Kenyan farmers.

- **Information provision.**

Of the 86% of farmers who expressed an interest in updates, the majority were interested in public health updates and news-style updates, showing a desire for information on how to mitigate the pandemic.

- **Facilitating communication across the supply chain.**

98% of agro-dealers reported communicating with suppliers via mobile phone, and 70% reported receiving messages from farmers about inputs at least once a day. By establishing formal channels across the value chain, farmers can communicate their needs and preferences. Better informed agro-dealers may be better positioned to overcome challenges to meeting farmer demand — for example through communicating farmer requests to suppliers, thus ensuring that needed inputs are available. Such a channel would assist agro-dealers in implementing changes to how they stock, which about one-third have already reported adopting, including using cashless transactions and having inputs delivered.