



# THE IMPACT OF DIGITAL CHANNELS ON BEHAVIOURS DURING AN EMERGENCY RESPONSE EFFORT

Summary of Busara impact research findings on the COVID-19 and Desert Locust content deployed with different digital channels, partners and country contexts.

**JANUARY 2021**

The COVID-19 and desert locusts interlocking crises threaten smallholder farmers' health, livelihoods, and food security in East Africa. Mercy Corps' AgriFin program – acting as a catalyst and with support from Cisco's Breakthrough Solutions investment – has rapidly brought together a wide array of smallholder farmer-focused digital partners and other agencies to deploy farmer-friendly digital tools and original content to support public health messaging, desert locust public service announcements, citizen reporting efforts and a productive recovery for food systems. **Access the [infographic](#) and [full report](#).**

The goal of our COVID-19 and desert locust emergency response was to rapidly mobilize a range of digital content and channel providers to immediately inform farmers across the region of COVID-19 and desert locust threats and the measures they could take to protect themselves and their families. In six months we have implemented programming that has now reached over 16 million smallholder farmers (by multiple channels including TV, SMS, WhatsApp, IVR Call Center) with 75% of farmers reporting they received critical information to ensure they stay healthy and productive.

To understand the impact of this rapid mobilization of public health information and desert locust content over a wide variety of channels, we engaged Busara, behavior change research experts, to study the effectiveness of our approach. Three case studies were selected to evaluate behavior change and digital channels in emergency scenarios:

- Combined SMS + In-person Campaign in Kenya
- Combined SMS + TV Campaign in Kenya
- IVR Campaign in Nigeria
- Combined IVR + SMS + Agent Campaign in Ethiopia

## Summary Findings

Farmers reported that **75% of the information they received across channels improved their knowledge of and attitude toward COVID-19**, and agreed that they are exhibiting some preventative behaviors. In one case, the combined knowledge, attitude, and behavior (KAB) scores changed significantly. Meanwhile, SMS and TV channels were found to be more effective and trusted by farmers. Over the course of the engagement, farmers evolved in their information requests, moving from more demand for COVID-19 information to a greater emphasis on agriculture and livelihood content – an expected outcome as the initial shock of the pandemic subsided.

Registered channels (where farmers have been registered by a partner digitally) appear to have a greater impact in combination with open (unregistered/mass media approaches), but the interaction of registered vs. unregistered and partners with combined communications (for instance SMS with TV) require deeper research to fully understand the impact on KAB. *(continued on next page)*

Finally, given the short-term nature of this content dissemination, rapid KAB score changes (both increased and decreased) are observed before and after engagements – with knowledge and attitude scores far easier to have an impact on than behaviors. In the iShamba case, this was observed in the steep decline in KAB scores once the content stopped (due to the end of the grant).

### **SMS + In-person in Kenya (Wefarm - Producer's Direct)**

There were positive effects on knowledge, attitude, and behavior compared to a control group. There was a 6.6 percentage point increase in the overall knowledge (11.37%), attitude (13.7%), and behavior (1.74%) score. These positive effects were driven by farmers knowing more about social distancing, about livestock and COVID-19 transmission, and about tool sharing. Farmers in this cohort are washing their hands more, however they were poorer practices of social distancing and mask-wearing.

### **IVR in Nigeria - (Viamo and Airtel)**

The knowledge, attitude, and behavior changes in the group were small and insignificant. This could be due to farmers not fully accessing the new content on the IVR menu. Despite this, the decrease in behavior among farmers in this case study seems to come from poor handwashing practices.

### **SMS + TV in Kenya (iShamba and Mediae)**

Farmers reported positive changes in knowledge, attitude, and behavior. After the campaign ended, there was evidence that farmers were reverting to poorer behaviors. After the intervention ended, farmers in this case study were practicing social distancing less and there was a reduction in general mask-wearing. These behaviors may be influenced by current on-farm activities.

### **IVR + SMS + Agents in Ethiopia (Agricultural Transformation Agency)**

Farmers were positive in their narrative responses to the IVR-led campaign and how it influenced their COVID-19 knowledge attitude and behavior. They see the IVR line as providing critical and practical information. In relation to locust information, farmers primarily rely on agents for information. They have learned preventive and control measures against possible locust invasions.

There is a **near-universal preference for receiving information through the SMS channel** in the three Kenya and Nigeria case studies. Convenience and trust are the main drivers for this preference. Surveyed farmers trust the information that they receive through the SMS channel. This might be explained by the fact that the SMS channel has been around longer than other relatively newer channels like social media platforms. It takes time to build trust on newer digital channels. A mixed-channel messaging campaign, such as complementing the IVR channel with SMS reminders, can be used to build trust on channels that farmers are less familiar with.

Each case study can be optimized by providing tailored COVID-19 content that supports farmers in maintaining their livelihoods in face of COVID-19. There is evidence that farmers are particularly concerned about livelihoods. Providing COVID-specific content that takes farmers' crop cycles into account such as providing information about working safely in the planting or traveling to markets post-harvest, would be relevant to farmers in each cohort.

## AgriFin Lessons Learned from the COVID-19 and Desert Locust Emergency Responses:

1. Marketing approaches for different channels are required at different levels of intensity depending on the content to be delivered, for instance, literacy levels of targeted farmers and stage of adoption of the digital technology or channel being introduced (e.g. IVR may require SMS marketing campaigns for further adoption);
2. With rapid information dissemination at scale across digital channels – farmer knowledge and attitude changes are easier to positively impact than behavior changes. Behavior changes will require longer-term repetitive information/educational methods and a diversification of content to match responsively to agriculture/livelihood needs;
3. Farmers have higher trust preferences for TV and SMS based channels, particularly SMS channels that have already been actively adopted by farmers through trusted providers. Leveraging ecosystems of farmer-facing organizations, rather than just a single provider, is a strong pathway to scale;
4. Consortium approaches, where partners share content across platforms and manage multiple channels, are faster to scale with a higher rate of impressions. Involving government in these consortia is a strong way to build trust, but agility during a crisis also shows the strong benefit of bringing in private sector actors from agribusiness, media players, communications companies, and others;
5. Nascent WhatsApp based systems require further development to drive widespread adoption. While the smartphone interface can drive significantly more rich content, data, and two-way interaction, adoption levels are still in early phases and need marketing support to drive expansion;
6. Registered farmers on digital services trust their channels more so than farmers receiving information from new or mass media channels, especially via SMS;
7. While many experts extolled the value of call centers, this was not a channel that farmers actively utilized (but combined with SMS/WhatsApp/IVR surveys on the locust response was an important as a verification method for citizen reporting);
8. Farmers are interested in receiving more digital content, especially regarding agricultural and livelihood concerns;
9. Strong coordination, project management, data management, and communications skills were required across partnerships to maintain consistency in messaging and speed of deployment.

## Busara Lessons Learned from Conducting Research in a Time-Sensitive and Dynamic Context:

Research methodologies should be adjusted to fit the study objectives and needs. Each case study sample had unique characteristics and varying campaign timelines. We took a mixed-methods approach to conduct the impact assessment across partners. Researchers should strike a fine balance between being flexible and maintaining rigor. The dynamic environment with multiple partners meant that the researchers had to be flexible with their approach. This required the research team to be transparent about the caveats that came with every modification. For example, the combined SMS and TV case study ended before the endline survey. So we modified the approach for this case study to measure post-intervention trends.

Follow strict protocols for data collection and management even within a time-sensitive context. The research required conducting baseline and endline surveys with the same sample. The research team developed data collection protocols and implemented quality checks during the evaluation. **Access the [infographic](#) and [full case study](#).**

## MERCY CORPS AGRIFIN

Mercy Corps' AgriFin programming (MCAF) represents USD 35 million in innovation funding from the Mastercard Foundation, Bill and Melinda Gates Foundation and the Swiss Development Corporation to support development, testing and scale of digitally-enabled services for smallholder farmers. With this support, AgriFin now reaches more than 8 million smallholders.

## BUSARA

The Busara Center for Behavioral Economics is a research and advisory firm dedicated to advancing and applying behavioral science in the Global South.

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