



COVID-19 Updates

The second quarter of 2020 proved to be as unprecedented and challenging as the first. However, with the knowledge that COVID-19 would not be a short-term disruption to the lives of our staff, or the farmers that we serve, we were able to plan with a degree of more certainty.

PAD works with some of the poorest and most vulnerable populations in the world. With support from the International Center for Growth, this quarter we published findings and analysis from the first round of our surveys of farmers and agro-dealers in Kenya and India. Farmers reported disruptions to labour markets and threats to food security, though were more sanguine about the pandemic's impact on input and output markets.

Key outputs from these surveys include a dashboard collating the findings of round one from India and Kenya; a blog post on the Kenya findings; and a policy note which we presented to a working group tasked with informing Kenya's official response in the agricultural sector.

Data from a second round of surveys is in the process of being analysed for publication. Details will be posted to our website when they are available.

As documented on our blog by our Chief Development Officer and Director of New Programs, Jonathan Lehe, digital extension services such as PAD's offer unique advantages in the current context, and critical capabilities for addressing the impacts of the pandemic. PAD's teams and platforms have continued to service farmers, relatively unimpeded by the impositions of the pandemic and associated physical distancing protocols. In a remarkable post on our blog, Otini Mpinganjira, PAD's Odisha State Lead, and Vineet Keshaw, Senior Implementation Associate, documented the operational challenges associated with working under lockdown conditions that were met to ensure continued digital advisory service delivery to meet the evolving needs of farmers and partners.

A new multi-country partnership: The International Fund for Agricultural Development (IFAD)

Prior to the COVID-19 pandemic, PAD commenced engagement with the International Fund for Agricultural Development (IFAD) to discuss ways in which the two entities could collaborate to scale digital advisory services and associated learning. This engagement was aligned with a strategic decision on the part of PAD's leadership to strengthen outreach with bilateral and multilateral entities toward further diversifying our partner and funding portfolio, with a particular focus on supporting long-term digital service delivery at scale.

Engagement between IFAD and PAD intensified as the scale of the implications of COVID for smallholder farmers, and the constraints it would impose on traditional extension systems, became clearer.

A proposal for a grant to support operations in Pakistan, Kenya and Nigeria (a new geography for PAD) was submitted by PAD to IFAD early in the second quarter, and was approved just after the conclusion of this quarter. The total value of the grant is \$2 million over 12 months, and will support PAD's digital agricultural advisory services to help 1.7 million farmers recover from the COVID-19 pandemic and increase their productivity. PAD is working with IFAD's country teams and their government counterparts in these three countries to expand PAD's existing services, launch our 9th country program in Nigeria, and conduct R&D on new information services to address COVID-related market disruptions. We are optimistic that while the implementation horizon of the grant is for twelve months, that this is an initial step in a longer term collaboration with IFAD.

In addition to the approval of the grant, PAD's co-founder Michael Kremer has accepted an invitation to be a "champion" for digital agriculture and an advocate for IFAD's replenishment. Michael Kremer

participated in a facilitated conversation with IFAD President, Gilbert Houngbo, which was broadcast on various online media. Kremer and Houngbo also co-authored an OpEd advocating for the adoption of digital extension to mitigate the impacts of COVID-19 and invest in digital capacity to assist farmers in the future.

Nigeria (new geography)

- Target to reach 100,000 farmers
- Hiring an initial core of staff to launch the operation and inform content. We expect the team to expand as operations intensify and gain sophistication.

Kenya

- Target to reach 500,000 farmers (mix of new and existing PAD farmers)
- Hiring new Research and Operations Manager and Research Associate to support associated operations. Potentially hiring a livestock specialist to support work with one IFAD project.

Pakistan

- Target to reach 1,100,000 farmers (primarily existing PAD farmers)
- Hiring new Research Lead, Program Manager, Implementation Associate, Agronomist, and Field Manager.

Global

• IFAD funds will support the hiring of one Product Manager and one Software Developer to support organization wide technology research and development. At a global level, funds will assist us to more effectively respond to the COVID-19 pandemic.

The Inter-American Institute for Cooperation on Agriculture (IICA)

In June, PAD signed a Memorandum of Understanding with IICA, the specialized agency for agriculture of the Inter-American System, which supports its 34 Member States to achieve agricultural development and rural well-being. This long term partnership will enable PAD and IICA to expand the use of digital agricultural advisory services into

the Latin America and Caribbean (LAC) region and integrate these services into governments' existing agricultural extension systems. This partnership has already begun to pay large dividends, as it has led to promising new partnerships with Ministries of Agriculture in the region.

Programmatic Updates

ETHIOPIA

- The team recently launched livestock content on the ATA/8028 inbound line. The livestock content has been tested, validated and approved by the Ministry of Agriculture, EIAR, and ATA. Farmer appetite for livestock-related content is promising with an increasing trend in the number of farmers accessing this section of the service.
- The BMGF Farmstack partnership with Digital Green continues to move forward as we develop new use cases for dairy farmers on the platform, although there have been some COVID-19 related delays.

INDIA

- Services continue to scale and run relatively smoothly despite COVID-19 disruptions, with a number of research projects underway to increase engagement and improve user navigation of our services.
- PAD's Odisha leadership has begun planning for the handover of the service to the government in eighteen months, and is exploring ways to formalize learning through the process. In Odisha, this quarter, we launched two new experiments: i) to determine if messaging can encourage farmers to adopt

flood-resistant seeds and ii) to test the effectiveness of reminders and nudges in increasing farmer engagement with our services.

- In West Bengal, the government extended our contract to reach 45,000 farmers by December 2020. The impact of super cyclone Amphan (May) has slowed progress toward targets, but we don't foresee persistent lags. In West Bengal this quarter we are exploring ways to see how motivational messages can support crop diversification.
- PAD has ensured funding to support the ongoing delivery of our program focused on reducing crop burning in Punjab and Haryana for another year.
 Scaling continues apace, and the project will target 20,000 farmers this year (four times that of last year).
- PAD's collaboration with the Coffee Board of India that was piloted in Karnataka, is now being expanded to coffee growers in Tamil Nadu and Kerala as well.
- PAD launched two revenue-generating, agribusiness partnership pilots in Gujarat.

KENYA

• The MoA-INFO team added two new crops (tomatoes and sorghum) to the platform which



will help to promote the service with new users (green gram content will be added in Q3). We did not undertake activities to expand the user base in Q2. Learning activities in this quarter focused on the impact of COVID on farmers and agro-dealers (reported above). We plan significant farmer recruitment and content development in the coming quarter ahead of the short rains season.

- Through the course of the quarter we piloted a voice-based service on MoA-INFO. We are interested in the potential for voice in Kenya, in a context where SMS platforms appear to be more popular and digital literacy may limit the utility of voice-based services. Data from the pilot is currently being analyzed with results expected in Q3.
- This quarter we recruited 9,060 users to receive tomato advisory through a pilot delivered in partnership with One Acre Fund. Lead indicators for the project are promising and we hope to further iterate and build scale in partnership with OAF.

PAKISTAN

- We continue to reach over a million farmers in Punjab with our advisory services through the platform that we designed for the province's Agriculture Department (AD). We expect farmer usage to increase steadily as we begin incorporating advisory content to support more crops and as we implement changes to the platform to improve user experience.
- An interactive voice response (IVR) hotline has been soft launched with limited functionality, yet the service has already received over 17,000 calls from farmers in Punjab. We are currently working with the AD and its vendor to ensure that the IVR hotline is fully functional, and to ensure that content is updated on a regular basis before advertising the new service on a large scale. Further development of the IVR service will depend on a number of factors including the timeline for when the AD assumed full ownership of a fully functioning IVR

system and reporting dashboard, our ability to migrate user information from other databases, marketing budget and marketing effectiveness, and refinement of the system based on learning.

- PAD has signed an agreement with HarvestPlus to promote Zinc fortified wheat to Punjabi farmers to improve household nutrition. The team is excited at the prospects of implementing new programs with HarvestPlus and IFAD, and is actively pursuing a number of further operational and research opportunities.
- We are excited to have finalized the design of a pilot for procuring and dispensing Satellite Data on crop health in Pakistan. We propose to use satellite data to construct high frequency crop health indices at the plot level and make this information available to maize farmers in one district of Punjab. We are actively seeking funding to support this pilot.

RWANDA

• We have completed a pilot in partnership with Root Capital serving close to 1,000 coffee farmers in two cooperatives in Rwanda. Endline analysis is being conducted by our partners.

UGANDA

• This quarter we largely managed to avoid the technical problems which undermined the UCAT RCT in the first quarter. We implemented an A/B test to see if the use of dramatized vs. non-dramatized

versions of push calls could improve listening rates among farmers. We hypothesized that if we could make the content more dynamic, we could keep farmers on the line longer especially those that tend to not listen to the whole message. Unfortunately technical issues were encountered during implementation of the test: in two of the three weeks of the A/B test, we experienced bad telco connectivity and could not reach farmers at the rate we normally do. Results were inconclusive as we did not have power to find statistically significant impacts. However, we may explore running this A/B test again in the future as this could generate some interesting results for the project as well as for other programs that use IVR in Africa.

ZAMBIA

- Our SMS campaign, delivered in partnership with CABI and the Ministry of Agriculture, serviced 80,000 farmers with information about Fall Armyworm. The campaign concluded in February. To date we have only been able to access one delivery report from the government, which has delayed assessment of the campaign.
- CABI and PAD hired IPA Zambia to conduct a phone survey with a sample of 3,000 farmers (treatment and control farmers). Delays in procurement and in obtaining an approval letter from the MoA (required by the local IRB) has delayed implementation but we are hopeful to conclude the survey in the forthcoming guarter.

Organizational Updates

In Q2 we welcomed the following new staff: Caitlin McKee (Global Research Support Manager); Prasanna Kumar (Senior Software Engineer); Diana McLeod (Global Research Associate); Winnie Njuguna (Global Operations Assistant); Yifan Powers (Senior Global Research Associate); Jingkai Ong (Global Research Associate Nairobi); Revati Vaidya (Process and Product Innovation Associate); Stefania Pozzi (Global Senior Research

Associate); Prerna Panda (Research and Operations Associate); Gautam Bastian (Research and Program Development Manager). Our Indian affiliate, PADIF welcomed the following staff: Gaurab Dash (Agronomist), Tapanwati Senapati (Agronomist), Sanjay Sahoo (Agronomist). Organization-wide, we were pleased to welcome the following Summer interns: Abul Hashem (Columbia); Andrés Ortiz-Riomalo (Chicago); Aliya Tuzhilin (Oberlin); Shruti

Kedia (Columbia); Karan Bhuwalka (MIT); Andrew Wang (Harvard); Himani Mehta (UPenn); Luisa Gomez (Harvard); Victoria Ying (Harvard); Huizhi Gong (Georgetown); Deepa Manjanatha (Harvard).

Dr. Berhanu Gebremedhin, our Ethiopia Country Director, has resigned from PAD (effective 31 August) as he seeks urgent medical treatment abroad. Berhanu brought a wealth of knowledge and experience to our Ethiopia operations. We wish Berhanu good health, and look forward to reengaging with him in a new role when he is able to. We also bid farewell to four research assistants who are leaving to further their studies: Fanele Mashwama (Harvard), Grady Killeen (Berkeley), Samyam Shrestha (University of Georgia) and John Marshall (Chicago), we wish you well!

Financials

- Total operating costs for the 12 months to 6/30/2020: \$4.6M
- Total funds available cover approximately 8 months of operations

Funder Updates

- IFAD grant (as detailed in the main body of the text)
- Sall Family Foundation early renewal of general operating support (twice the level of their 2019 contribution)
- InsuResilience Solutions Fund (ISF) for a pilot in Gujarat and Odisha to promote farmers' uptake of crop insurance based on remote sensing
- West Bengal Government extension of funding for PAD's work to reach 45,000 farmers by the end of the year

