Quarterly Highlight

A farewell to Ama Krushi

On 31st May 2022, PxD successfully transferred the day-to-day management of the Ama Krushi program to Tatwa Technologies Ltd., a third-party firm that won a competitive government tender. PxD remained on board for a further two months to build Tatwa’s staff’s capacity and provide technical support. The transition formally concluded on 31 July 2022. Our role in Odisha is now limited to ongoing research and documenting learnings from the transition.

In 2018, PxD (then Precision Agriculture for Development), in a partnership with the Department of Agriculture and Farmer Empowerment (DAFE) the Bill and Melinda Gates Foundation (BMGF), and the Abdul Latif Jameel Poverty Action Lab (J-PAL) launched “Ama Krushi” (“farmers’ friend” in Odia). Conceived as a Build, Operate and Transfer (BOT) project, the project’s design envisaged the transition of the management of Ama Krushi to the Government of Odisha at the conclusion of the implementation and scaling period. Built by PxD from scratch, at handover the Ama Krushi platform was actively servicing over three million registered farmers with customized advisory on 29 value chains spanning crops, livestock, and fisheries. Today, we can proudly say that Ama Krushi is an entirely government-funded and government-owned service running at scale.

A more thorough accounting of Ama Krushi’s development and the transition is detailed in a recent post on our blog.
Coffee Krishi Taranga, which we deliver in partnership with the Coffee Board of India, with support from the Walmart Foundation, commenced expansion to Andhra Pradesh where coffee production is concentrated among indigenous communities working small farms using traditional methods. Concurrently, we are exploring the use of media-rich content to deliver advisory to coffee farmers who own smartphones. As part of our broader weather-related research, we have completed qualitative interviews to understand coffee farmers’ perceptions of probability-based weather forecasts.

In collaboration with field partners in Gujarat - Aga Khan Rural Support Program (AKRSP), Ambuja Cement Foundation (ACF) and Action for Food Production (AFPRO) - we have on-boarded several thousand cotton farmers associated with the Better Cotton program of the Better Cotton Initiative to our Krishi Tarang initiative. The Better Cotton Principles & Criteria provide rules and guidance to farmers participating in BCI programs on how to reach BCI social and environmental sustainability objectives. By adhering to these principles, BCI Farmers produce cotton in a way that is measurably better for the environment and farming communities. Through PxD’s digital extension service, farmers can now access free advisory that allows them to grow cotton in compliance with the Better Cotton standard.

The India team is also undertaking various innovation-related activities including (i) qualitative research with women’s groups, convened by SEWA, a national federation of organized collectives of self-employed rural women to refine our understanding of women’s informational needs and bespoke channels for information delivery, (ii) exploratory work to assess the feasibility of bundling agricultural advisory with financial services (based on early-stage work done with Asset Collateralized Loans in Kenya), and (iii) the use of Leaf Color Charts (LCCs) to promote more efficient use of fertilizer inputs on the part of smallholder farmers.
Pakistan

At the end of Q2, our grant from IFAD for “Development and Expansion of Digital Agricultural Advisory Services for Smallholder Farmers in the Context of COVID-19” concluded. We are very pleased with the work we completed under the grant, specifically the new weather product for cotton farmers. Our completion report was well received by IFAD and a supervision mission to Pakistan is planned for the middle of September 2022. Following the conclusion of the project, IFAD showcased our collaboration via a “story” published on their website.

In Q2 we launched a weather service for smallholder farmers in Punjab province. The platform integrates weather data from the Climate Forecast Applications Network (CFAN). Farmers registered to the service receive mutually reinforcing SMS and push calls with relevant weather information customized to their Tehsil. Nearly 200,000 farmers now receive regular weather-related updates and advice, including when to plant crops and when to dig channels to divert floodwater, etc.

Livestock farmers in Pakistan confronted a range of challenges in Q2. In the period March-May, an outbreak of lumpy skin disease killed hundreds of cows and reduced milk yields. Surviving animals receive a lower price at market due to the scarring of hides. These challenges are further compounded by misinformation regarding the possibility of transmission to humans (which is not possible) and eating meat from infected animals (it is safe to eat parts of the animal that do not have lesions), and we are responding to misinformation with accurate information from credible sources from Pakistan and internationally. We also pushed information about how to identify the disease and cost-effective disease management strategies like burning cow dung to repel insects that spread the disease and isolating infected animals from healthy ones. Farmers who acted on our advisory regarding vaccinating animals against lumpy skin disease reported that they were able to save cows from dying. Even in cases where animals were affected after vaccination, the infection was reported to be mild and non-lethal for many animals. Additionally, we distributed precautionary advice to
use new needles for each vaccinated animal, since multiple uses of one needle can spread the disease among animals. Similarly, farmers were informed to stop the common practice of dispensing with, or burying, dead animals near sources of water, as this could also spread disease. Farmers were advised to bury carcasses deep in the ground away from water sources.

Summer also brought searing heat followed by floods. Working with our partners the Rural Community Development Society (RCDS), we designed a series of disaster management and flood warning messages. The team worked to preemptively identify areas prone to flooding and targeted farmers in these areas with information on adaptive strategies to protect their assets and livelihoods. Unfortunately, given the magnitude of flooding this year, farmer-level strategies for mitigation were not as effective as they could have been in an average year. However, we did see some success in cases where farmers reported harvesting their crops early due to rain alerts from our weather advisory which ended up saving their harvests.

PxD Pakistan has been officially approved for a sub-grant over two years from USAID, as part of a consortium led by Associates in Development (AiD). The grant will expand our work in Pakistan to Khyber Pakhtunkhwa (KPK) province. Implementation of the grant is expected to commence this year.

“Information about the weather is very useful. Just in the past, when we got to know from the phone call of 6007 that there will be rain, we picked the cotton early, which saved the crop from getting ruined. Apart from this, advice about cotton is very useful.”

Farmer in Khanewal district, Kabirwala Tehsil
Nigeria

Our Nigeria service was selected to present a “Tech Demonstration” at the 2022 Global Digital Development Forum. Our video, presented by Uzoamaka Ugochukwu, PxD’s Nigeria Country Launch Manager, showcased how we leveraged Paddy, our in-house tech platform, to build and scale our Nigeria service.

PxD Nigeria has advanced as a finalist in the IFAD Innovation Challenge (IIC) and will pilot a Digital Financial-Phone-Book-Directory (FPBD) innovation for small businesses and smallholder farmers in southern Nigeria. The team will conduct a series of scoping exercises to identify key financial service providers for inclusion in the FPBD platform.

Ethiopia

As detailed in our Q1 report, PxD Ethiopia played a lead role in supporting the Ethiopian Ministry of Agriculture and the Agricultural Transformation Institute (ATI) to develop a roadmap to coordinate activities to develop digital agriculture over the course of ten years. The National Roadmap for Digital Agricultural Extension and Advisory Services (DAEAS) was officially launched at a convention in Addis Ababa on 16 and 17 June. Owen Barder, PxD’s CEO, and Emmanuel Bakirdjian, Africa Regional Director, joined the PxD Ethiopia team in Addis to participate in the event and to explore opportunities for collaboration.

In June PxD Ethiopia and the Netherlands Development Association (SNV) signed an MoU to collaborate to improve the dairy sector in Ethiopia. SNV and PxD are partnering to provide customized dairy advisory services that target the gestation stage of the cow, and improve milk yield. This work complements our existing activities to provide digital advice to farmers and technicians active in the Ethiopian dairy sector.
Organizational Updates

We welcome the following new hires to our team:

Dat Nguyen, Software Engineer, PxD Global; Deepak Punia, Data Engineer, PxD India; Sannihit, Program Associate, PxD India; Tibebu Aragie, Senior Research Associate, PxD Ethiopia; Sara Bekele, Data Officer, PxD Ethiopia; Sejal Luthra, Senior Research Associate, PxD India; Glenn Ortiz, Research Associate, PxD Global; Kamran Niazi, Research Manager, PxD India; Shubham Garg, Program Associate, PxD India.

We are pleased to announce that the following colleagues have been promoted:

Tushar Singh has been promoted to Senior Research & Operations Associate, PxD India; Ashish Kamra has been promoted to Research Manager, PxD India; Otini Mpinganjira has been promoted to Country Manager, PxD Kenya; Phelix Akugo has been promoted to Finance Associate, PxD Kenya; Michelle Atieno has been promoted to Assistant Finance Manager, PxD Kenya; Winnie Njuguna has been promoted to Operations Associate, PxD Global.
Funding updates

We are very grateful for the following commitments received in Q2:

- A new commitment of $1m over two years from Schmidt Futures in support of our work advancing innovative use of remote sensing, farmer data, and machine learning to provide customized agronomic advice to smallholder farmers.
- A sub-grant of $1m from USAID as part of a consortium to expand our work to Khyber Pakhtunkhwa, a new province in Pakistan.
- A new commitment of approximately $600k from the Vitol Foundation to improve services for women users, and to support farmers to adapt to climate change.
- A $539,864 grant from Givewell to scope and plan a potential three- to five-country implementation and impact evaluation of PxD’s core agriculture program.
- A new commitment of $100,000 in unrestricted funding from the Sall Family Foundation.
- A new commitment of $100,000 in unrestricted funding from the Montpelier Foundation.
- Continued support from CABI of approximately $70,000, in support of ongoing advisory services for Kenyan smallholder farmers.
- An extension of $29,975 from the Stichting Coffee Agronomy Training for PxD’s work with coffee farmers in Uganda.

In many settings, we work to improve the services of others or operate services that we build and manage intending to transfer their legacy management and operation to partners. As a consequence, we have begun to collect information about our graduated users. We define graduated user reach as “the number of unique farmers receiving services developed, enhanced, or improved by PxD and managed by partners without our direct involvement through legacy programs in the last 12 months”. We do not directly interact with graduated users but they continue to benefit from our work. We measure graduated user reach by asking our partners if they continue to implement programs PxD was involved in designing, optimizing or delivering, and how many users they are reaching with those programs. As we continue to use the Build Operate Transfer model, we expect graduated user reach to continue to grow and become a substantial and important part of our user reach.