

Myanmar High-Tech Agtech Gives Farmers' Incomes a Big Boost

In visits to the countryside after she moved from Vietnam to Myanmar in 2015, [Village Link](#) CEO Quyen McGrath was surprised to see rice plant heights and crop yields varying tremendously. After seeing a rapid increase in mobile phone users in the country, she and her collaborators developed an app and extra services to support farmers, increase their agricultural yields and help newly arrived investors.

A Simple yet High-Tech Solution Supports Farmers

The varying heights of rice plants were indeed a surprise. In countries such as Vietnam and the Philippines, Quyen explained, heights are uniform across a field. The key difference is seed quality. "You can increase the yield by up to 30 percent by a very good seed quality," she said.

Her timing for developing agricultural technology (agtech) solutions to enhance rice and other agricultural production in Myanmar was fortuitous. The price of SIM cards dropped from about a thousand dollars to one dollar when more telcos were allowed into Myanmar in 2017 and 2018, and the number of users skyrocketed. She was well-positioned to take advantage of the change, as she had experience with shifting from traditional face-to-face training for farmers early in her career in Vietnam to delivering services via technology.

Her first project was SitePyo, the first agtech app in Myanmar. She partnered with Ooredoo, a new telco that wanted to take market share by providing an exclusive app for farmers. "We quickly managed to get about 200,000 users." SitePyo sent notifications about pest outbreaks, weather catastrophes, prices, disease prevention, alternative fertilisers and more to farmers.

Her next project was Htwet Toe (high yield), which was available for all telcos' customers, and the number of users rose to 850,00 by early 2021. The achievement resulted from a collaboration between Village Link, Awba and the Department of Agriculture, with technical support from the Netherland Space Agency.

Weather advisories, for instance, focus on three critical factors for farmers - location, type of crop and crop stage. Rain affects rice farmers and sesame farmers differently, for example. "We focus on a small actionable activity," Quyen said.

Over time, Village Link added more services. "We work with some MFIs (microfinance institutions) to provide information about loans," she noted. "We give weather advisories every week, with guidelines and tips to supplement farmers' crop calendars. We have a call centre where we help farmers solve their daily farming problems.

Htwet Toe users include 65,000 fish farmers, mostly in the Ayeyarwady Delta. "We help them grow the fish and minimise pollution in the river system by promoting the right feeding and water filters."

"The three things we focus on," Quyen said, "are productivity for the farmer, sustainability to protect soil, and resilience." Many times, she said, farmers go to a workshop, receive advice, and then can't do anything because the advice is not actionable. Village Link focuses on providing relevant, actionable advice. "We tap into information which enriches them. We don't come in and tell them we know better."

Marketing through Multiple Channels

Village Link uses a variety of channels to promote its services.

It has field teams, for example, which teach farmers how to use the app. While competitors such as Greenway do have an app, she said they do not have field teams. The field team "is why we got that number of users." Quyen said. Village Link's collaboration with Awba and the Department of Agriculture also gets the word out to farmers.

Its call centre enables farmers to get answers quickly. “We are the only one providing a digital extension through a call centre.” She said the centre also enables Village Link to understand farmer’s needs better than competitors.

Village Link also works with non-government organisations (NGOs) and private companies. “International NGOs, buyers and MFIs have difficulties with field operations, so they take advantage of our field coordinator network. We put them in touch with farmers, buyers and microfinance institutions.”

Revenue is Challenging

Although Village Link had higher revenue in its early years, the situation has changed and the number of users has dropped to about 600,000. “We couldn't get as much income,” she said. To add revenue, Quyen said, Village Link works with companies in new ways. “They want technical experts so they get a certain quality of product to meet export requirements. We provide the details, and we normally get about US\$3 per farmer per crop season. We also have several commercial contracts.”

Village Link previously provided satellite products for high-tech companies and new investors in Myanmar, though most of those firms have left the country. “We were using satellite data from the Netherlands Space Agency,” Quyen said. “We mostly did weather, crop and land monitoring.”

One of their latest projects is developing a traceability tool for the rice value chain that they hope will promote the trademark and value of Shwebo Rice, in collaboration with [GRET](#) (Group for Research and Technology Exchanges). She is also working on AI so that Village Link will be ready to deploy it in the future. Overall, though, she said “My aim is to get enough money so we can continue to provide free services for farmers.”

Village Link has also decreased expenses by lowering the amount of data it stores and reducing staff. Although it let go 40 percent of its staff in 2021, it still provides jobs for people in rural areas. “A lot of students from universities decided to stay in the villages in 2021, so we picked up this resource. They show the farmer how to download our app, use the app, put in a question, and things like that.”

The Reason for Impact

Quyen’s focus on impact for farmers in Myanmar is the culmination of circuitous journey. Her background in her native Vietnam was as an agronomist focusing on soil science, and she started out working for an agricultural firm. She shifted to teaching for seven years, then shifted back to agriculture with the Ministry of Agriculture and NGOs, “When I came back after seven years, so much had happened - training in agriculture, digital and satellite data. And I was so surprised because there was not much change in the farmers.”

She eventually joined the MIAKI Group and moved to Myanmar in 2015. She saw in Vietnam, Bangladesh, Pakistan and other countries how a country could move fast and still leave farmers behind, so she decided to do something different. “We believed that with new technology and the mobile phone, we could help people.” And she is indeed having a tremendous impact by helping farmers transition to using technology to grow crops better, reduce carbon emissions and increase their income too.