

What is your idea?

If we do not provide a service that farmers want to use, we are useless.

Farmers often lack access to high-quality information on farming, prices, markets, and products. But providing that information to large numbers of farmers through conventional extension and advisory service approaches is extremely costly. While information and communications technologies have opened the door to new ideas, approaches, and tools designed to resolve this information constraint, the evidence of their impacts are mixed and, more importantly, highly specific to country, crop, and ecology. As a result, many small-scale, resource-poor farmers still face real challenges: they are often unable to make optimal decisions on strategies such as what crop to grow, which farming practices to employ, where to sell their output, when to sell it, and how to manage the risk-return tradeoffs that can provide an exit from low-productivity livelihood strategies.

This is the case in Myanmar, one of southeast Asia's least developed countries where agricultural productivity falls well below regional averages. But is also a country that is strategically linked to major markets—not only the country's urban centers, but also China, India, and Thailand—where demand for its agricultural products far exceeds farmers' capacity to produce and market profitability. Add to this the fact that Myanmar is home to one of the highest rates of smartphone penetration in the developing world, having leapfrogged over earlier-generation technologies. An estimated 80 percent of households in Myanmar own and use a smartphone, with penetration over 70 percent in its rural areas. For these reasons alone, Myanmar is well positioned to leverage the power of smartphone-based apps that bridge these information constraints on farming, prices, markets, and products.

The Golden Paddy platform, developed and run by Impact Terra, was an early entry into the market for agriculture service-related apps. Its content is customized by crop and location and is designed as a demand-driven platform to engage farmers, optimize information, and provide both relevant and timely advice. Farmers can access the Golden Paddy services through three channels—the Golden Paddy application, mobile website and Facebook page—all of which are free of charge. Since the launch of Golden Paddy in December 2016 we have reached 97% of all townships in Myanmar organically, and we have a monthly reach of over 2 million farmers per month. By providing farmers with new knowledge on production, markets, and finance, Golden Paddy is enabling rapid improvements farming practices, yields, and incomes—improvements that are critical to strengthening Myanmar's agricultural sector and economy.

Our objective is to assess the impact of Golden Paddy on farming practices among smallholder maize farmers in the Southern Shan State of Myanmar by drawing on the data generated by its smartphone-based platform, and refine the platform to further empower data-driven farming.

The approach is unique in several respects. Most importantly, the approach expands Impact Terra's analytics made possible by Golden Paddy's massive user base of over 2 million farmers and a combination of back-end analytical tools, Google Analytics, in-app functionalities, and socioeconomic impact assessment. Better analytics will allow Impact Terra to better understand its users, their activities, and their needs which, in turn, translate into the provision of more site-specific information to farmers to support their decision-making processes not just on production practices and input use, but also on

marketing and. Most importantly, the approach builds off the unique social enterprise mission of Impact Terra, which is to support farmer families in improving their livelihoods and make food supply more secure and safe. In Asia's market for smartphone-based platforms and service, Impact Terra is unique in combining its social enterprise mission with its massive outreach to farmers. The approach described here is a low-cost, highly scalable, real-time and approachable channel through which the efficiency of development efforts can be enhanced.

Golden Paddy has the potential for generating social impact by using data to solve development problems faster, cheaper and with greater efficiency. But this requires stronger analytics, and now it is time to assess the impact that its smartphone-based app is having on farmers livelihoods in Myanmar. This motivates our underlying hypothesis, which is that farmers are making use of information provided through Golden Paddy to change their farming practices, improve their marketing strategies, and enhance their livelihood options. Exploring these outcomes requires deeper analysis of the platform's rich data.

Over the past months our userbase has grown organically to cover almost all townships in Myanmar. Although we know that farmers are using Golden Paddy, we now want to know how much impact the platform is having on the ground. The insights from collected data and analysis helps us to improve our service and create even greater impact.

Making a real difference for real people today is central to Impact Terra's mission, and it matches closely to the mission of its partner, the International Food Policy Research Institute, whose aim is to end global hunger and malnutrition. Together, these organizations can help provide farmers with quality information, access to markets, and financial solutions that lead to significant productivity and livelihood gains.

Impact Terra and IFPRI we develop new front-end functionalities and back-end analytics to collect, interpret, and analyze data from the Golden Paddy platform. We will select our user groups of maize farmers in Southern Shan State—Impact Terra's focus farmers in our focus market—as our pilot. In later stages, additional tools and analytics can be developed to collect additional data strengthens the analytics and advances site-specific product development.

The majority of the budget (90%) will be allocated to Impact Terra to optimize the platform and content, and to expand analytical capabilities. The remaining share (10%) will be used to secure technical advice and support from IFPRI to identify data points and data collection strategies to better assess impact of the Golden Paddy platform on farmers' practices and livelihoods.

The pilot will collect, generate, and analyze data on app usage, demographics (sex, age, farming experience, etc.) farm-level information (landholdings, plot sizes, cropping patterns, etc.), access to credit, input markets, location and market distances, and other key variables, combined with information on market prices, weather patterns, and geographic information.

The logical next step from this pilot will be to collect and analyze data from more farmers, on more crops, and across larger geographies. This includes expansion into other Southeast Asian countries as planned by Impact Terra in 2018. It also includes development of a business plan to generate revenue through engagement with third parties in the commercial sector.