Scaling up productive water (small irrigation)

Scaling Up of Productive Water for Irrigation - Phase II

Country/Region
Nicaragua, Honduras, Burkina Faso, Vietnam, Kyrgyzstan / Tajikistan and Global

Partners
iDE

Background information
Phase II aims to increase smallholder farmers' income, food security, and water efficiency at a global scale, primarily through the promotion of drip irrigation and other micro-irrigation technologies.

Project objectives
- Increased smallholder income, food security, and water efficiency at global scale.
- Contextualized business models are implemented in regional initiatives with lessons learned for scaling
- Global platform for broader dissemination of drip irrigation technologies

Beneficiaries
Farmers depending on water resources for their agricultural production and livelihoods.

Costs
CHF 4,500,000

Duration
02.2014 – 06.2017

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Water is the key to unlocking smallholder farmers' productivity and prosperity. By promoting drip irrigation and other micro-irrigation technologies, the project aims to increase income, food security, and water efficiency for this population at a global scale. Because there are no commercial supply chains in place for smallholder irrigation solutions in most markets where iDE works, iDE implements different approaches in each market that is designed for the specific context, ranging from establishing a social enterprise to facilitating a market-based approach through an industry-level global alliance.

In the first phase of the project, iDE introduced affordable micro-irrigation technologies to over 25,000 farmers in Central America, West Africa, and Asia. The farmers who began using this technology were able to improve their water efficiency and productivity, ultimately leading to an increase in their income and food security. Based on these findings and results, iDE is now building a global platform that leverages the knowledge gained on these approaches to reach scale through smart replication.
iDE's process for addressing market-based issues to improve incomes begins by identifying needs for poor populations that have been unmet. In this case, the issue for farmers was clearly knowledge of and access to water-saving technologies for irrigation. As small-scale farming generates 80 percent of the food consumed by rural communities, increasing production has a large impact on food security for these populations. Since 70 percent of the world's water consumption is from agricultural use, addressing the issue also benefits water conservation efforts. iDE analyzed the existing market and supply chains to identify missing or broken links in getting these technologies to farmers. Then iDE developed business solutions that made new connections and strengthened existing connections (i.e., distributors to rural communities, capacity of manufacturing) to achieve a more robust market.
When necessary, iDE creates a new financially viable enterprise that is dedicated to clear social, environmental, and poverty reduction goals. Social enterprises are created when there is a market vacuum that has not been filled by private enterprises, often due to challenges in service delivery or poor risk-reward perceptions. However, these social enterprises often need support during the incubation period, as market entry costs can be substantial. iDE established iDEal Tecnologias in Nicaragua as a separate business entity, created with the objective to reach poor farmers with low-cost irrigation systems. iDEal Tecnologias is now serving as a replicable example of this approach and has established the foundation for a platform that uses social enterprise as a means to sustainably increase access to productive water technologies for smallholder farmers.
In some cases, there are existing private entities that fail to serve smallholder farmers. Many private enterprises do not market to poor, rural households due to perceived risks in transportation logistics, economies of scale, or simply a lack of interest. iDE works to resolve misperceptions and build local private capacity to serve smallholder farmer markets. For example, in Vietnam, iDE has been training existing businesses to expand their manufacturing and sales abilities to fill voids in the market.
iDE's experiences in this project has led to the creation of the Drip+ Alliance, which serves as a basis for an industry-wide engagement to bring drip irrigation to smallholder farmers. The Drip+ Alliance brings together industry leaders, researchers, investors, and social-mission organizations to collaborate on solutions that expands smallholder access to drip irrigation solutions. The Drip+ Alliance goes beyond a simple technological fix, recognizing that a broader package of complementary technologies, technical support, financing, and market access are necessary components of any transformative and scalable solution for smallholders.
To date, the second phase has reached over 14,000 households (over 70,000 peopel) with affordable irrigation technologies. In Vietnam, farmers using micro-irrigation earn an average of $9 of crop profit per square meter of land more than non-users. In addition, they are using an average of 32% less water than non-users across all stages of crop production.