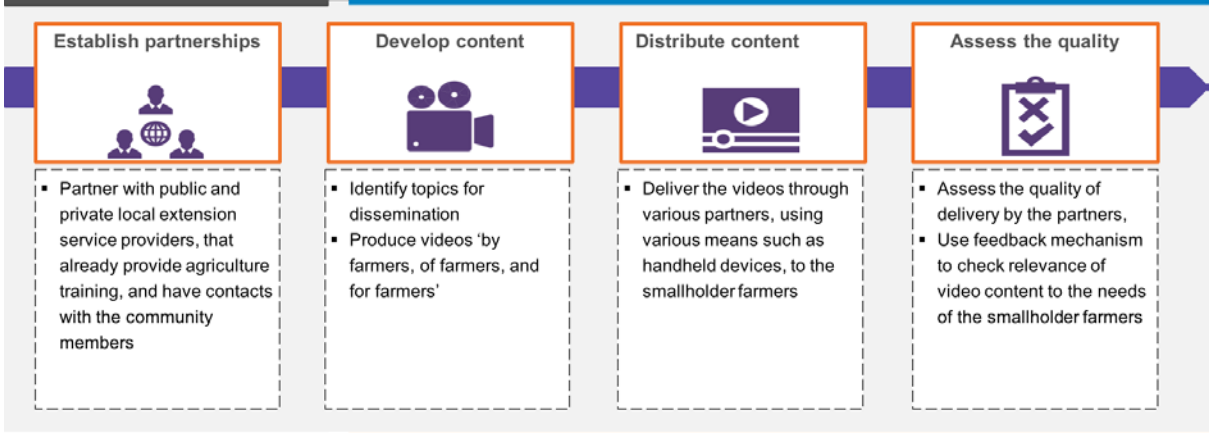
CASE STUDY: DIGITAL GREEN

digitalGREEN

Founding year: 2006
HQ: San Francisco, CA
Countries of operation : India, Ethiopia, Malawi, Ghana, Senegal, Niger, Papua New Guinea, and Nepal
Orientation: Not-for-profit
Employees: 100
Turnover: USD 4 million

Lack of information about critical inputs and inadequate knowledge about modern and efficient agriculture practices is a major factor contributing to low farm yields. While traditional media such as radio and television have continued to play a major role in extension and development communication, growth in the internet and increased access to and use of mobile technology are perceived to be the game changers in the ICT extension space.

Digital Green is a not-for-profit international development organization that leverages digital means for community engagement to improve lives of rural agriculture based communities across South Asia and Sub-Saharan Africa. The enterprise partners with with local public, private and civil society organizations to share knowledge on improved agricultural practices, livelihoods, health, and nutrition, using locally produced videos and human mediated dissemination. The enterprise' approach is 10 times more cost-effective; and the uptake of new practices is 7 times higher in comparison to traditional extension services.



Operating Model

Digital Green builds and deploys information and communication technology to increase the effectiveness of extension services for the benefit of smallholder farmers. The enterprise provides training and technical support to its partners and develops technology-based solutions to empower rural farmer communities. Digital Green is supported by The Bill and Melinda Gates Foundation, USAID, Google, Oracle, and Cisco.

Digital Green screens videos on topics such as agricultural practices, livestock, agriculture inputs, and government programs in agriculture sector, is organized for farmer groups. The process leverages low-cost, peer-to-peer video-based knowledge exchange. Local agriculture agents and peer mediators are trained to use pocket-sized cameras to produce videos starring community members about locally relevant agricultural practices and issues.

Digital Green has partnered with 58 different organizations, of which 40 partners are located in India. The enterprise has provided training to nearly 1.15 million farmers through its partners.

Trained local farmers facilitate regular screenings of these videos with a battery-operated, mobile projector among small groups of farmers in an interactive forum and encourage them to adopt the best practices featured in the videos. Extension agents collect and analyze feedback and usage data at the community level using an information system that operates in locations with poor Internet connectivity. Digital Green's approach focuses on peer learning and involves producing videos that are by farmers, of farmers, for farmers. The enterprise taps into the ability of viewers to connect with other farmers shown in the videos to disseminate important farming practice improvements.

The enterprise also partners with the government and private sector organizations that are involved in rural development and engage in on-ground extension activities, to train smallholder farmers. These agencies also usually already employ frontline village-level workers, like agricultural extension agents and village resource persons, who facilitate the screening of videos among community groups that they are already working with closely.

In 2012, Digital Green partnered with the Government of India under the National Rural Livelihoods Mission to improve the efficiency of agriculture and livelihoods interventions by promoting relevant best practices in agriculture and livelihoods, non-farm practices, financial inclusion, and institution building. Government extension workers were provided videos and other training material by Digital Green. In 2014, Digital Green entered into a national level memorandum of understanding (MOU) with the National Rural Livelihoods Promotion Society (NRLPS) to expand the Digital Green approach to other state rural livelihoods missions and partners. Digital Green also has formal Memoranda of Understanding with NRLM's state-level implementation agencies— Society for Elimination of Rural Poverty (SERP) in Andhra Pradesh and Bihar Rural Livelihoods Promotion Society (BRLPS) in Bihar. Of the total outlay for this project, the Government of India and state governments cover almost 70 percent of the cost, while the Bill & Melinda Gates Foundation covers 30 percent of the cost.

Digital Green has defined standard operating procedures[1] and has a variety of technology tools[2] that are open-source and can be customized. For instance, its data collection and monitoring system, Connect Online Connect Offline (COCO), is open source and freely available; partners can view and adapt the software code and use the software platform for its own use. Its training procedures and video content are posted on its website.

Financial Sustainability

Digital Green leverages its partners' strengths and existing infrastructure, such as local extension networks and relationships. This eliminates the possibility of parallel and unsustainable systems, and keeps the costs low for Digital Green and its partner organizations. The enterprise adopts different business models with different types of organizations. For instance, with NGOs, the enterprise follows a donor-supported model, where donors cover the capital as well as operational expenses. When working with governments, the cost of training and technology development support provided by Digital Green is usually covered by donors such as Bill & Melinda Gates Foundation, Google, Oracle, and USAID, while the government covers the capital cost and operational cost. The World Bank provides financing to some of these government programs, such as the National Rural Livelihood Mission (NRLM), which is led by the Ministry of Rural Development, Government of India (MORD, GOI). When Digital Green works with private sector agribusiness, such as JK Paper and Marcatus QED (MQED), the companies usually cover all of the costs, including that of technology development, training, capital expenditure and operational expenditure.

Digital Green incurs costs primarily for technology, human resources for technical assistance and training support, research and quality assessment. Its revenue streams include fees for providing technical assistance, and videos/ technology to the partners. Pricing of the services provided by Digital Green is a function of several factors such as the partner involved, duration of engagement with the partner, type of support required, and number of extension agents to be trained. Digital Green does not have any real competitors, as the local extension service providers in different geographies work as partners of the enterprise. Digital Green provides end to end ICT extension

services including production, analysis and distribution of information. This is a distinguishing feature of the enterprise.

The enterprise has received external funding from donors such as Gates Foundation and USAID, and from corporates such as Google, CISCO and Oracle. Digital Green has won several awards; some of them include Ashoka fellow, and those from eNGO, Google, and Massachusetts Institute of Technology.

Impact

Digital Green has been shown to be at least ten times as effective, per dollar spent, as compared to traditional approaches to agriculture extension.[3]

The Digital Green videos empower three groups of farmers: community members involved in producing videos, members involved in screening videos, and members who watch the videos. The representatives for the first two groups may begin with limited skills and abilities. With experience, they benefit in terms of increased confidence and ability to create and share content with fellow members. The third group benefits by learning about new agriculture practices and strategies that could improve their agriculture output.

Challenges and Lessons

The foremost challenge that the enterprise faces is to maintain the quality of programs, mainly due of its scale. Although the enterprise provides requisite technical training to the partners, it does not have direct control on the quality of video screening, depth of content, and several other critical factors affecting video content quality. Digital Green addresses this issue by conducting a quality assessment at its end once it receives the videos from the partners, to ensure that the videos disseminated as Digital Green videos are of standard quality. The expansion is also a critical issue as it is a function of the number of extension services providers present in any region. In the absence of existing extension service providers in a particular area, the enterprise leverages its network from the nearest location to cater to the ICT extension service requirements in that area. Digital Green also leverages government programs and extension services to cater to this challenge and achieve the desired scale and reach.

Road Ahead

Digital Green has expanded its network in India and other countries in the last few years. It took 6 years to reaching the first million farmers. The enterprise targets to reach the next one million in the coming 2-3 years. The enterprise plans to leverage its network of farmers to provide them other services besides ICT extension.

In India, Digital Green is in the process of extending its partnership with other NRLM states like Jharkhand through smaller pilot projects. It is also leveraging the Mahila Kisan Sashaktikaran Pariyojana (MKSP), an initiative under NRLM to empower women in agriculture, partnering with NGOs to work in three states of India—Maharashtra, Andhra Pradesh and Karnataka.

Endnotes

[1] http://www.digitalgreen.org/resources/sop/#sop
[2] http://www.digitalgreen.org/tools/
[3] Eikin Gandhi. Ashoka India Fellow http://india.ashoka.org/fellow/rikin-gandhi