



# Promoting Agriculture– Nutrition Convergence

## Through Participatory Extension Videos

Rikin Gandhi, Ritika Pandey,<sup>1</sup> Terhi Havimo, and Eija Pehu

The nutrition challenge in South Asia is complex due to its varying scale from hunger to hidden hunger.<sup>2</sup> The region has the highest rates of hunger and under-nutrition in the world, and overweight and obesity is increasing in prevalence, especially in India. These complex and multicausal nutritional challenges need to be met with equally varying cross-sectoral interventions. Recognizing that an effective way to ensure food and nutrition security is to explore the interconnections between agriculture and nutrition, the SAFANSI Trust Fund<sup>3</sup> supported the promotion of nutritional practices as part of an existing agricultural extension program among the farming community in Bihar, India. A pilot program was conducted in partnership with the Bihar Rural Livelihoods Promotion Society (also known as JEEViKA) to investigate how locally produced videos could increase community knowledge and the adoption of improved nutrition practices, as well as evaluate the feasibility of integrating nutrition information into the existing agricultural program. The pilot targeted 42 villages in three districts. This *Note* presents the key findings of piloting the participatory nutrition messaging videos.

### **AN INNOVATIVE, TECHNOLOGY- ENABLED MEANS OF BEHAVIOR CHANGE COMMUNICATION**

The nutrition information approach using videos as a basis for disseminating best practices is a cost-effective and scalable solution that brings together researchers, development practitioners, and community members to produce and share locally relevant information. The

medium is well suited for interpersonal behavior change communication with smallholder farmers because it overcomes problems associated with illiteracy and is an intuitively accessible technology, especially when local farmers convey the advice and information in the video. Local social networks are tapped to connect farmers with experts; the thrill of appearing on video motivates farmers, and social cohesion is leveraged to minimize the distance between teacher and learner.



Aishwarya Pillai, Digital Green

Women's self-help group members. Nalanda District, Bihar.

The approach operates through a hub-and-spoke model in which nongovernmental organizations and public sector agencies collaborate to train community intermediaries to produce and screen locally tailored video content to social organizations, primarily women's self-help groups. In a controlled evaluation, the video approach was shown to be at least 10 times more effective, on a cost per adoption basis, than a conventional approach to agricultural extension, with a sevenfold increase in the rate of behavior change.<sup>4</sup>

## **BUILDING THE CAPACITY OF COMMUNITIES TO PRODUCE AND DISSEMINATE VIDEOS**

*The objective of the pilot was to develop community-based instructional videos on nutrition topics (including food preparation, dietary diversity, crops rich in vitamin A, kitchen gardens) to enable access to and adoption of best practices by community members.*

The videos were produced within the communities with the help of trained community resource people, who effectively serve as extension agents for JEEVIKA and were taught to produce locally relevant videos. These same individuals then facilitated the screening of these videos

using low-cost, battery-operated pico projectors among the women's self-help groups that they worked with.

## **DEFINING TOPICS AND PRODUCING THE VIDEOS**

The video topics were selected for their relevance to the local landscape, and the content specifically focused on themes related to agriculture and nutrition. Sample topics included cultivating kitchen gardens to increase access to nutrient-rich vegetables; better balancing maternal workload related to agriculture during pregnancy; improving dietary quality and diversity for women and children; and increasing the consumption of animal proteins, primarily milk and eggs. The following topics were identified that relate to both agriculture and nutrition:

- Nutritional garden
- Cultivation of vegetables in sacks
- Recipe for a nutritional sweet called *laddu*
- Nutritional value of moringa trees
- Community Health and Nutrition Care Centers (CHNCCs)
- Diet during pregnancy

Though not directly related to agriculture, other topics, such as the importance of personal hygiene and breast-

feeding, were also considered from a more general public health and nutrition perspective given JEEViKA's interest in improving the nutritional status of the communities that it works with through a combination of means.

Once the topics were identified, JEEViKA's district- and block-level staff produced storyboards in which key messages were outlined. Strong emphasis was placed on the validation of the practices. The key messages in the videos were validated by JEEViKA's nutrition experts, and a state-level health and nutrition program manager verified the technical accuracy of the storyboards, approving them for video production.

## TESTING THE VIDEOS THROUGH MEDIATED VIDEO SCREENINGS

After showcasing the videos, feedback was collected from the community on each of the 15 videos produced under the pilot. In each village, the community resource person screened the videos among women's self-help groups (SHGs). These affinity-based SHGs were mobilized by JEEViKA and are engaged in microcredit and savings activities. The SHGs were familiar with Digital Green's approach as they were already watching videos on a biweekly basis pertaining to improved agricultural practices. Many of the women belonging to these SHGs had prior experience of applying the practices that they were watching. As a part of the screening process, the community resource person would pause the video at strategic points and engage the group in purposeful and productive discussion on their understanding of the featured practice. The typical size of a group was 15 to 20 people. Small groups created an informal and intimate environment, enabling all members to interact, ask questions, and clarify their doubts. The cross-sectional nature of SHGs, which include pregnant and lactating mothers, mothers-in-law, sisters-in-law, and other peers, has shown to be quite influential in encouraging them to adopt a new practice or behavior beneficial for their and their families' nutrition and health.

## KEY FINDINGS

### Strong message recall and comprehension

- Community members remembered key messages in the videos.

- The local dialect used in the videos was familiar to viewers.
- Community members said that the messages were clear. Some videos were screened more than once on demand from the viewers, for better reiteration of the messages.

**These videos give us valuable knowledge. We can do everything that is being said in these videos. Earlier, we didn't have this information. Our knowledge has increased after watching these videos.**

**—Babita Kumari**

Community Member, 37 years of age  
Khagaria District, Bihar

### Increased knowledge on health and nutrition best practices

- Community members said that they learned about new maternal and child health practices from the videos.
- The women found the nutrition content especially useful as they have quite a bit of influence in the household nutrition decisions.

**These videos will increase the knowledge of the women in the community, which will improve their health and well-being.**

**—Reena Kumari**

Nutrition Specialist, 32 years of age  
Gaya District, Bihar

**[The] videos increased our knowledge about health issues. These videos should be shown to men also.**

**— S. Devi**

JEEViKA Saheli, 30 years of age  
Khagaria District, Bihar

### Sociocultural myths addressed

- Prevalent myths related to pregnancy and childbirth (for example, not eating pumpkin during pregnancy) were dispelled and communities felt more informed about health and nutrition practices.

The participatory video pilot on agriculture and nutrition successfully demonstrated the feasibility of a technology-enabled platform for locally producing and distributing improved agricultural, food, and nutrition practices as part of an existing public extension system. So far, these videos

[The] videos have dispelled our myths and misconceptions. Earlier, we used to think that food must be cooked on high flame, but after watching the video on cooking method we got to know that cooking on high flame adversely affects the nutrition content.

—Chandrani Bharti  
JEEViKA Saheli, 27 years of age  
Khagaria District, Bihar

have been disseminated to more than 2,000 community members who JEEViKA works with, and there is an interest in sharing the videos more broadly to the 1 million self-help groups that they work with across Bihar. The subjects of the videos covered a variety of topics, including those primarily related to nutrition behaviors and those in which agricultural messages were made nutrition-sensitive. The stakeholders involved in this project are keen to see how the links between agriculture and nutrition, especially for women, can be strengthened and to rigorously evaluate how messaging, related to agriculture, health, and a combination of these subjects, ultimately improves the food and nutrition security of the rural communities that we engage with.

The pilot outputs, including videos produced and community usage data of this project, are available on Digital Green’s knowledge management platform: <http://digitalgreen.org/discover>. A video summarizing the processes involved in this pilot is available at <http://www.digitalgreen.org/blog/safansi-pilot-in-bihar/>. Additional reports, presentations, and videos can be accessed at [http://www.digitalgreen.org/events/#workshop\\_agnu](http://www.digitalgreen.org/events/#workshop_agnu).

## Notes

1. Rikin Gandhi and Ritika Pandey are from Digital Green (<http://www.digitalgreen.org>).
2. Hidden hunger refers to the lack of vitamins and minerals, such as vitamin A and iron.
3. The South Asia Food and Nutrition Security Initiative (SAFANSI) is supported by the World Bank and the U.K.’s Department for International Development.
4. Gandhi, R., R. Veeraraghavan, K. Toyama, and V. Ramprasad. 2009. “Digital Green: Participatory Video for Agricultural Extension.” *Information Technologies for International Development*, 5 (1): 1–15. Available at <http://itidjournal.org/itid/article/view/322/145>.

**TABLE 1 Nutrition Videos Produced through the SAFANSI-Supported Project**

Video topics	Video links
Nutritional garden	<a href="http://www.digitalgreen.org/discover/video/7285/">http://www.digitalgreen.org/discover/video/7285/</a>
Cultivation of vegetables in sacks	<a href="http://www.digitalgreen.org/discover/video/7283/">http://www.digitalgreen.org/discover/video/7283/</a>
Recipe for a nutritional sweet called <i>laddu</i>	<a href="http://www.digitalgreen.org/discover/video/7284/">http://www.digitalgreen.org/discover/video/7284/</a>
Nutritional value of the moringa tree	<a href="http://www.digitalgreen.org/discover/video/7473/">http://www.digitalgreen.org/discover/video/7473/</a>
Purpose of Community Health and Nutrition Care Centers	<a href="http://www.digitalgreen.org/discover/video/7269/">http://www.digitalgreen.org/discover/video/7269/</a>
Diet during pregnancy	<a href="http://www.digitalgreen.org/discover/video/7279/">http://www.digitalgreen.org/discover/video/7279/</a>
Documentation of the entire process of cooking at CHNCCs	<a href="http://www.digitalgreen.org/discover/video/7281/">http://www.digitalgreen.org/discover/video/7281/</a>
Training a group of community members on hygienic cooking	<a href="http://www.digitalgreen.org/discover/video/7282/">http://www.digitalgreen.org/discover/video/7282/</a>
Importance of breast-feeding	<a href="http://www.digitalgreen.org/discover/video/7267/">http://www.digitalgreen.org/discover/video/7267/</a>

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