

Improving Agricultural Extension: Scaling Up the Off-Season Vegetable Production in Nepal

Project Report, 2016

The goal of this applied research is to scale up the off-season vegetable (mainly tomato) production by developing leader farmers as entrepreneur-cum-extension workers at the grassroots.

Building on the success of MSU-initiated off-season vegetable production, the project has been expanded in Thumki and Rupakot Village Development Committees (VDCs) along with Hamsapur VDC of Kaski district, Nepal. 198 new households and a Farmers Cooperative joined the vegetable production initiative in May-June 2014. Our project provided with plastic sheet for tunnel construction and tomato seed/seedlings, but individual farmers covered all other the costs associated with the construction of plastic house including labor.

15 farmers participated in a 2-day study visit observing off-season vegetable production along the Pokhara-Kathmandu highway. The participants are expected to serve as lead farmer to disseminate off-season vegetable production practices in their communities.

A baseline survey was conducted to identify the demographic and socio-economic characteristics of participating farmers; determine current level of vegetable production and income from vegetables; and identify barriers and/or constraints for adoption of new agricultural technologies and practices.

Farmers' Field Day was organized on September 14, 2014 to share lessons learned during the first phase of the scaling up of this project. About 200 farmer households directly participated and benefitted from the applied demonstration project. Additional 400 farm households observed the benefits of adoption of off-season vegetable production.

Indragufa Community Development Foundation, the local partner of the project provided leadership in coordinating this action-research project in Nepal. Representatives from Nepal's Department of Agriculture, Nepal Agricultural Research Council and Agriculture and Forestry University joined the Farmers Field Day. Two professors from Kasetsart University, Thailand also attended the event representing the USAID/Regional Horticulture Innovation Lab.

A special meeting of all partners was held on September 15, 2014 reflecting on interactions and observation made during the Farmers Field Day. Participants suggested the following actions for this scaling up project:

Vegetable Collection Centre is an immediate need. Our project will provide matching for its construction.

Agriculture and Forestry University (AFU) of Nepal will explore the possibility of establishing an extension/outreach center in this community. AFU will collaborate with Nepal Agriculture Research Council to conduct research to solve farmer's problems -- insect pest and disease control, soil improvement, and marketing of fresh vegetables.

The scaling up the off season vegetable production project activities continued through the end of MEAS project. This project has had major impacts on participating farmers and lessons learned are being shared with extension professionals through:

Two journal articles and one presentation on panel data have been developed (copies are attached) based on impact of the project on participating households:

1. Factors affecting production and income from off-season tomato farming;
2. Farmers' Participation in Extension Programs and Technology Adoption in Rural Nepal: A Logistic Regression Analysis; and
3. A Panel Study on Adoption of Commercial Vegetable Farming in Western Nepal (Accepted for presentation at 2016 AIAEE Conference to be held during April 4-8, 2016 in Portland, Oregon).

A 10-minute Video demonstrating the impact of extension work has been produced to share lessons with Nepal's agricultural extension service providers and development partners. It has been shared with local television stations and also available via YouTube (available at):

<https://www.youtube.com/watch?v=mlyxE0QloX4&feature=youtu.be>