IPM Innovation Lab - Tuta Workshop Overview


March 14, 2017
Presentation Overview

- IPM Lab Brief
- Tuta Brief
- IPM Products Last Mile Supply Chains
- IPM Lab Earthquake program
- Plan to address Tuta
- Way Forward

Tuta Absoluta
Tomato Leaf Miner
IPM Innovation Lab - Nepal

- Global Program Nepal (2009-14): Verifying IPM packages for major vegetable crops with NARC/DOA
- Nepal Mission Associate Award (2013-16): Provide models, training, and technical support for the FTF initiative to scale IPM for the vegetable subsector
- Global Program Asian Vegetable (2015-2019): Support to scale IPM for FTF, improve/new tech packages, special areas (include Tuta, viral diseases, train for bio tech)
- Partners Virginia Tech (Prime), Penn State, Ohio State, Washington State
- Nepal led by iDE with CEAPRED, HICAST strong partnership with NARC, DOA/PPD, AFU, Agricare/Private Partners, others. (Linked to Hort Lab, Climate Change Lab)
- Main IPM Sites Lalitpur, Surkhet, Banke
IPM Lab Activities

- Develop IPM Packages for major vegetable crops: tomato, cole crops, and cucurbits working with NARC and PPD/DOA
- Training for production of bio-agents
- Training / support with NARC for viral disease diagnostics
- Support development of supply chains for IPM products/solutions linking with other iDE and USAID Feed the Future Projects.
- Training for public sector, private sector, and development programs including at IPM sites (Lalitpur, Surkhet, and Banke).
IPM Lab conducted viral disease diagnostic training with NARC/Plant Pathology and assisted for molecular analysis of viral diseases.
IPM Lab University Team visits Nepal every year meeting with NARC, DOA/PPD, and stakeholders to support development of the IPM Lab activities.
IPM Lab sets up learning centers for training in partnership with DADO. Ranagua Site Lalitpur with DADO, also sites in Banke and Surkhet.
IPM Lab has developed IPM packages for major vegetable crops and nursery technologies with NARC/DOA/PPD. Most profitable crops include monsoon tomatoes grown in a high tunnel, cucumbers/Cucurbit, and Cole crops.
IPM Lab tested conservation agriculture mulching with IPM packages. Results were promising, yield increases, and 50% water savings.
Tuta Absoluta Leaf Minor - Brief

- Exotic pest from Brazil
- Detected in 2016 with major outbreaks around Kathmandu valley
- Potential to expand to most of the terai and midhills
- Potential for devastating loss $50 million+/year
- Major impact smallholders
- IPM lab tested solutions
Asian Vegetable IPM Lab assisted Climate Change IPM Lab to conduct regional Tuta Symposium with PPD/ DOA/ NARC (Jan 2017)
Commercial Pocket Approach

- Over the last 13 years iDE has developed the commercial pocket approach to commercialize smallholders with USAID, DFID, and EU support addressing weak markets.

- Key feature facilitating sufficient volume of production to:
  - Establish a community managed collection centers for market access, services (crop calendars, linkage GON)
  - Develop local private sector marketing inputs, equipment, and providing embedded training (CBF)
  - Cross cutting: Climate Change, GESI

- iDE developed about 200 commercial pockets for about 200,000 HHs. PPP Approach becoming mainstreamed with GON/USAID/donors. **Multiplies public sector impacts!**
Commercial Pocket Approach
Sustainable Farmer Organization!

- Key for reducing transaction costs!
- Farmer organization supported by an economic opportunity
- IPM Lab successfully tested SMS thru CC
Padam Rana, Bgau, Banke. IPM Lab farmer and Community Business Facilitator (CBF), earned Rs 600,000 from crops and 150,000 as a CBF marketing IPM tech.
Sample framework for the role of a Marketing and Planning Committee and collection center

Apex Group are sometimes formed to handle dealing coordination with the government and third parties on behalf of a consortium of MPCs.
IPM Lab Scaling Strategy

- Link IPM Technologies and Approaches to:
  - Rural collection center networks thru crop calendars, monitoring of disease and pests, and linkage with DOA/PPD for diagnostics and solutions, use of SMS/ICT
  - Establish last mile supply chain thru Community Business Facilitators (CBF) to market/ support IPM
  - Training Packages for CBFs, CC, GON, other projects
  - Demos targeted to CC to include in crop calendars
  - Partnership with Agricare and other private sector companies to build and support CBF marketing network
  - Link Collection Centers and CBFs to Department of Agriculture / PPD - Farmer Field Schools
  - Linkages with USAID FTF / iDE Program, USAID ENBAITA (50,000 HH), Anukulan (100,000 HH), and others
Scaling IPM Technology

- IPM Innovation Lab Technologies has reached over 67,000 HH. About 2,300 thru IPM Lab sites and the rest thru other iDE projects and the Kisan project.

- Over 100 CBFs are marketing IPM Tech. IPM Lab (15) CBFs are selling about $400 per month / earning $40 per month. Over 200 additional CBFs are being developed.

- IPM Lab Farmers are earning about $240/year

- Under the USAID ENBAITA project working with private sector to develop supply chain hubs in Pokhara, Bhairawa, Nepalgang, and Dhangadhi
IPM Lab Earthquake Recovery

- IPM lab staff utilizing funds raised by iDE provided emergency help to almost 1,000 HHs right after the earthquake in 2015 and implementing an agriculture recovery program for almost 2,000 HH. Current focus is to address Tuta in earthquake impacted districts.
Plan to Address Tuta

- Rapid and extensive consultations with Plant Protection Directorate/DOA and NARC.
- Planning and field visit with IPM Lab US Univ Experts, PPD/DOA, NARC, and experts who volunteered time.
- Our assessment that there is a high risk of devastating damage to tomato crops in the terai and midhills in 2017 requires preparation and a response.
- There are a variety of internationally tested IPM solutions for Tuta.
- Our approach is to simultaneously verify and demonstrate IPM solutions.
- More intensive in districts where Tuta detected and less intensive in districts where Tuta has not been detected.
Plan to Address Tuta

- Testing/Demo of two broad protocols:
  - Exclusion: netting high tunnels and use of traps, bio-agents, botanicals inside tunnel
  - Open Field: conducted with clusters of farmers using traps, bio-agents, botanicals
  - Last resort green label pesticides (note pesticides not particularly effective)
- Development of supply chain for IPM solutions linking to Collection Centers for monitoring/information and CBFs for last mile delivery
Way Forward

- IPM Lab technical trainings Nov 14 (Lalitpur) and Nov 20 (Nepalgung)
- Will organize additional training for government, private sector, stakeholders
- Request other organizations that test/demonstrate the IPM solutions to carefully collect performance data and provide to PPD/DOA/NARC and IPM Lab team
- Request for programs to purchase IPM products from the last miles of supply chains (CBFs, local agrovets)
- Share and disseminate information. We will establish a website with updated info and email info to participants
- **Express our appreciation to GON: PPD/DOA, NARC and private sector partners for partnership**
Contact IPM Lab/iDE

- IPM Lab is a very small program with limited staff and resources, we will do all we can to address Tuta. Key contacts:
  - Komal Pradhan (kpradhan@ideglobal.org)
  - Lalit Sah (lpsah@ideglobal.org)
  - Ajaya Giri (apgiri@ideglobal.org)
  - Luke Colavito (lcolavito@ideglobal.org)
- Additional Materials IPM Packages PPD Tuta Fact sheet in back
- iDE Nepal website: www.idenepal.org
Thank You

Photos by Bimala Rai Colavito, iDE Volunteer
(see related materials and videos on iDE website: www.idenepal.org)