

IPM CRSP Impact Assessment

Global Theme

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IPM CRSP Technical Committee meeting, Honolulu, Hawaii, August 6, 2011

Objectives of IA Global Theme

1. Apply a common set of methods for impact assessment in IPM CRSP regional programs
2. Specialized in-depth Impact Assessments of Poverty, Environmental, Nutritional, and Other Impacts



Impact Assessment Activities in latest phase of IPM CRSP

- **Objective 1:**

Region	Task 1	Task 2	Task 3	Task 4	Task 5
South Asia	Yes	Yes	Yes	Yes	Yes
South East Asia	Yes	Yes			
Central Asia	Yes	Yes			
West Africa	Yes	Yes	Yes	Yes	Yes
East Africa	Yes	Yes	Yes	Yes	
Latin Am./Car	Yes	Yes	Yes	Yes	Yes

- Task 1 – Identify collaborating scientists for impact assessment
- Task 2 – Provide examples of baseline survey forms and budget sheets for data collection
- Task 3 – On site visits and short term training on impact assessment where needed to assist regional scientists working on impact assessment
- Task 4 – Provide guidance on conducting baseline surveys and summarizing data
- Task 5 – Basic impact assessments of IPM packages or components

Results of Objective 1 activities

- Baseline surveys completed or in process in Bangladesh, India, Honduras, Ecuador, Dominican Republic, Guatemala, Mali, Ghana, Senegal, Uganda
- Short term training at Virginia Tech on impact assessment for economists from Benin (for West Africa) and Dominican Republic



Objective 2 Results

- IPM adoption analysis using baseline survey data for Mali and Senegal
- Economic impact analysis of host free period and virus tolerant seeds on tomato in Mali and Senegal
 - Total benefits estimated between \$21 and 24 million over 18 years
 - M.S. student completed and paper drafted for journal
- Analysis completed of most cost-effective strategy for IPM diffusion in Bangladesh
 - Mass media and field days need increased emphasis
 - M.S. student completed and paper drafted for journal



Objective 2 Results

- Adoption analysis completed for IPM in Nepal as part of M.S. thesis
- Analysis completed and paper submitted to a journal on impact assessment of onion, tomato, pepper, and eggplant IPM in Honduras focusing on income and poverty impacts
 - Tomato IPM resulted in the largest income gain at \$8 million followed by \$5 million for pepper, \$3 million for eggplant, and \$2 million for onions.
- Article on impacts of Pheromone traps developed on IPM CRSP accepted in Bangladesh Journal
 - \$3-6 million in benefits over 15 years



Objective 2 Results

- Study completed and published by S.E. Asia regional collaborators (Yarobe et al, 2011) on impacts of IPM on pesticide reduction among Philippine onion growers
- Sampled 69 participants and 131 non-participants in onion IPM training and assessed training impacts on pesticide costs.
 - Controlled for fact that participants were not randomly selected for IPM training
 - Participants reduced pesticide costs by \$174 per hectare.



Objective 2 Results

- Ph.D. student at Tamil Nadu Agricultural University conducting impact assessment of import and release of parasitoid to control papaya mealy bug on several crops in India.
- Estimated that more than \$100 million in benefits already from a release that was made only one year ago.



Lessons from IPM Impact Assessments

- **To adopt IPM, Farmers need:** (1) Awareness, (2) Ease of use, and (3) Perceived benefits
- Need cost-effective programs that make maximum use of **mass media and hands-on demonstrations** such as field days in extension programs (Harris, 2011)
- For impact must translate research results into:
 - **Marketable products** such as bio-control agents, bio-pesticides, resistant varieties, grafted seedlings
 - **Simple messages** on how to apply cultural practices
 - Products that work through **large scale programs** such as large scale predator release (classical biocontrol)

Plans for coming year

Continue to conduct surveys in some counties (e.g., Ghana, Guatemala, Nepal) and analysis of baseline survey data in several countries (e.g., D.R., India); continue to evaluate specific IPM practices and packages (e.g., biocontrol of PMB in India, potato IPM in Ecuador, tomato IPM in DR); short term training for person fro India; MS training for person from Ecuador; PhD training for person from Nepal; publish papers from Honduras, Mali, and Bangladesh impact assessments



Acknowledgement

This presentation was made possible through support provided by the Agriculture Office within the Bureau for Economic Growth, Agriculture, and Trade (EGAT) of the U.S. Agency for International Development, under the terms of the Integrated Pest Management Collaborative Research Support Program (IPM CRSP) (Award No. EPP-A-00-04-00016-00). The opinions expressed herein are those of the author and do not necessarily reflect the views of the U.S. Agency for International Development.



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