

IPM Impact Assessment for the IPM CRSP

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Host Country Collaborators

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Summary

The Impact Assessment Global Theme interacted with the Regional Programs and Gender Global Theme to initiate impact work in each region with emphasis on South Asia, LAC, and East Africa, and on developing the baseline surveys and data collection formats for the Regional Programs. An MS thesis was completed for West Africa tomato IPM based on survey data collected in the previous year. The projected benefits of the IPM tomato program in Mali and Senegal were \$4.8 to \$21.6 million. Two MS students (1 male and 1 female) received long-term training (one jointly with the West Africa Regional Program and one with the South Asia regional Program). The first student finished and returned home to West Africa. The second student went to Bangladesh and Nepal to collect her data and develop her model to assess the most cost effective means of reaching a broad audience with IPM packages. Brief planning and training sessions on impact assessment were held in Bangladesh, Nepal, India, Ecuador,

Honduras, the Dominican Republic, and Uganda (with 11 males and 9 females), and sample baseline survey and budget template forms were sent to the other regional programs.

Common set of methods for impact assessment

Host country collaborators have been identified for most countries. Each region received guidelines with respect to the farmer baseline survey, and a sample budget form was provided for use in collecting data for each on-farm experiment.

Baseline survey

Statistical frames were set for baseline surveys in Bangladesh, India, Uganda, Ecuador, and the Dominican Republic. Regional programs were helped with baseline survey questionnaires in LAC, South Asia, and East Africa. Sample survey questionnaires were also sent to Central Asia and West Africa. Regional programs in India, Bangladesh, and Ecuador implemented their baseline surveys with others in process in the Dominican Republic and Uganda. The South Asia and Ecuador surveys have been completed, but the reports that summarize the data sets are not yet prepared.

Short-term training on impact assessment

On-site visits were made in East Africa, LAC, and South Asia to discuss impact assessment methods with additional planning on impact assessment completed by the SE Asia program by regional co-PIs.

A multiple day workshop on impact assessment was planned but was not conducted in East Asia. Short-term training plans for impact assessment were developed for LAC, South Asia, and East Africa.

Specialized In-Depth Impact Assessments of Poverty, Environmental, Nutritional, and Other Impacts

In-depth IPM impact studies in West Africa

Graduate student Theodore Nouhoheflin analyzed survey data collected in Mali and Senegal during summer 2009 to assess adoption of host-free period and other pest management practices.

Task 2 Progress: Theodore Nouhoheflin completed an impact assessment of economic impacts of tomato IPM in Mali and Senegal as part of his MS thesis at Virginia Tech. Estimated benefits for the overall program varied from \$3.4 million to \$14.8 million for the host-free period, \$0.5 million to \$3 million for the virus-tolerant seeds, and \$4.8 million to \$21.6 million for the overall IPM program. In projecting environmental impacts of the tomato IPM in Mali, it was found that adoption of the host-free period reduced the amount of insecticide sprays by 71% and the production cost by \$200/ha.

In-depth IPM impact studies in the other regional programs

Contact was made with regional program economists in Southeast Asia and Central Asia regional programs, but specific in-depth analyses they will undertake in those regions are not yet defined. Dan Taylor presented the basic concepts of impact assessment to scientists attending the IPM CRSP East Africa Regional Project research reporting and planning workshop in Uganda. He discussed methods and data, and planned for a regional training workshop on impact assessment there in 2011.

An in-depth impact study was identified and initiated in South Asia with graduate student Leah Harris. She is assessing the cost

effectiveness of alternative approaches for disseminating IPM in Bangladesh. She has gathered information on the net returns for each IPM CRSP crop and practice in Bangladesh and is combining that information with the cost of per farmer reached and per adopting farmer for each extension approach. She has incorporated that information in a linear programming model to assess the optimal dissemination approaches for the various crops and IPM practices. She traveled to Bangladesh to gather the data and also to Nepal to gather data for a qualitative assessment of the dissemination approach being used on the IPM CRSP there.