

# **Impact Assessment of Legume Innovation Lab's investments in Research, Institutional Capacity Building and Technology Dissemination for Improved Program Effectiveness (SO4.1)**

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## **Abstract**

Building on the momentum and experience gained over the last three years, this project proposes to contribute towards rigorous, evidence-based ex ante (i.e., potential) and ex post (i.e., realized) assessments of outputs, outcomes, and impacts of research with the goal of assisting the Legume Innovation Lab program and its Management Office (MO) achieve two important goals—accountability and learning. Greater accountability (and strategic validation) is a prerequisite for continued financial support from USAID, and better learning is crucial for improving the effectiveness of development projects and ensuring that the lessons from experience—both positive and negative—are heeded. Integrating this culture of impact assessment in publicly funded programs such as the Legume Innovation Lab will ultimately help increase the overall impact of such investments. The project team proposes to provide technical leadership in the design, analysis, and collection of baseline and end line data to conduct ex ante and ex post impact assessment of the Legume Innovation Lab's investments in research, institutional capacity building, and technology dissemination in Africa, Latin America, and the United States. It also proposes to conduct systematic analysis of existing data or field studies to address strategic research questions on the role of grain legumes in household food security, nutrition, and income.

## **Project Statement and Justification**

Impact assessment is essential for evaluating publicly funded research programs and planning future research. Organizations that implement these programs should be accountable for showing results, demonstrating impacts, and assessing the cost-effectiveness of their implementation strategies. It is therefore essential to document outputs, outcomes, and impacts of public investments in research for development (R4D) activities.

Building on the momentum and experience gained over the last three years, the proposed research will contribute towards evidence-based rigorous ex ante and ex post assessments of outputs, outcomes, and impacts, with the goal of assisting the Legume Innovation Lab program and its Management Office (MO) achieve two accountability and learning. Greater accountability (and strategic validation) is a prerequisite for continued financial support from USAID and better learning is crucial for improving the effectiveness of development projects and ensuring that the lessons from experience—both positive and negative—are heeded. Integrating this culture of impact assessment in publicly funded programs such as the Legume Innovation Lab will ultimately help increase the overall impact of such investments.

## **Objectives**

1. Provide technical leadership in the design, collection, and analysis of data for strategic input and impact evaluation

2. Conduct ex ante (i.e., potential) and ex post (i.e., realized) impact assessment of the Legume Innovation Lab's investments in research, institutional capacity building, and technology dissemination in Africa, Latin America, and the United States
3. Build institutional capacity and develop human resources in the area of impact assessment research

### **Approaches and Methods**

Towards objective 1, the approach consists of collaborating with other research project PIs to assess the feasibility of integrating data collection and impact evaluation strategies as part of their Legume Innovation Lab project design. One of the main tasks for this project is to review the workplans and to have a discussion with project PIs to assess the following:

1. Existing data sets that can inform the baseline and help in the analysis of impact attribution
2. The possibility of collecting relevant data using project budgets or supplemental resources
3. The possibility of writing joint proposals to leverage resources from other sources

For specific research project components and pilot sites where it makes sense to collect baseline data and follow-up monitoring and impact evaluation data—and for which adequate resources are available—the Impact Assessment team provides technical leadership in the form of human resources and professional expertise in data collection (e.g., sample design, impact evaluation design, designing data collection instruments, training enumerators, data entry templates, etc.) and analysis. Likely candidates for such joint ventures in baseline assessment and/or impact assessment studies over the next 4.5 year period include:

- A socioeconomic baseline study on the constraints and opportunities for research to contribute to increased productivity of climbing beans in Guatemala
- A study on the market potential of biopesticides in Benin
- A baseline assessment to measure potential impact of bruchid resistant varieties in Tanzania
- Before and after surveys of farmers to be impacted by the dissemination of diagnostic and decision tools/outputs in Uganda and Mozambique

Under objective 2, this project plans to 1. assess the realized (ex post) impact of the Legume Innovation Lab (and its predecessor CRSP programs) investment in technologies/outputs where there is evidence of adoption, and 2. enhance future impacts by engaging in innovative and evidence-based research that will serve as an input in making strategic research priority decisions by the Legume Innovation Lab program and in developing strategies for technology dissemination for maximum impact. The following list of candidate research foci provides examples of types of research studies and activities to be undertaken under this objective.

- Impact of biocontrol IPM strategy in Burkina Faso using the differences-in-difference analytical approach
- Impact of the adoption of improved bean or cowpea varieties in one of the partner countries
- Assessment of factors that contribute to the success and sustainability of seed systems for grain legumes. Under this broad theme, field research will be conducted to address such matters as: 1. the willingness of smallholder farmers to pay for quality seed over grain, 2. factors important for the sustainability of seed systems, 3. alternative models that incorporate sustainability factors

(community based seed systems, role of private sectors with vested interest in functionality of seed system, etc.)

- Systematic analysis of existing datasets in FTF and Legume Innovation Lab focus countries to develop profiles of potential research clients and beneficiaries, and to understand the constraints and potential impact of the adoption of new technologies by grain legume growers

In addition to this potential list of studies, the project team will also respond to analytical needs and demand from the Management Office and USAID for special assessments and evaluations that can be accomplished with available resources and data.

### **Anticipated Achievements and Outputs**

1. Completion of at least two theses or dissertation papers on impact assessment research
2. At least six *Impact Briefs* that can be more widely disseminated to convey the impact stories of USAID's investments in the Legume Innovation Lab (and its predecessor, the Dry Grain Pulses CRSP)
3. At least five manuscripts for publication in academic journals and presentations at professional meetings

### **Contributions to Institutional Capacity Building**

The project team will conduct educational sessions at project planning meetings and/or Global PI meetings to build capacity across the Legume Innovation Lab in developing and using impact pathways, theories of change, and collecting/reporting on performance indicators data. Such impact assessment training workshops or seminars will help the Legume Innovation Lab researchers (both from the United States and host countries) become familiarized with the operational aspect of impact assessment and help inculcate the culture of impact evaluation.

A short course (three to five days) on novel methods to assess the impact of agricultural projects will be developed and offered to NARS partners. This course will focus on teaching theoretical concepts and demonstrating practical applications of these concepts to economists, faculty, and students from local universities and research centers, including the use of statistical software. Where appropriate, this will be a joint activity in collaboration with NARS partners and CGIAR centers (e.g., CIAT, IITA) and opportunities to leverage resources to cover the local cost of organizing the short course and supporting the participants will be jointly explored.