BACKGROUND

About Bean/Cowpea Collaborative Research Support Program (B/C CRSP): The B/C CRSP is a USAID funded project, established in 1980 to strengthen agricultural research capacity in developing countries through collaborative research and training, focusing on beans and cowpeas sectors.

CRSP Training Model: The CRSP represents one of the models of university engagement in donor-funded long term degree training to build institutional capacity. Salient features of this model include:
- The integration of training into research project workplans of both the U.S. and host country partners.
- Direct supervision of degree training at a collaborating university by CRSP Principal Investigators (PIs).
- Trainees conduct thesis research on topical areas of direct relevance to host countries as identified in CRSP project workplans.
- Development of strong mentor-trainee relationship between U.S. PIs and CRSP trainees during the degree training phase leads to CRSP trainees’ continued collaboration with U.S. PIs after completing degrees.

STUDY OBJECTIVES

1. To document the outputs and outcomes of CRSP investments in graduate degree training at U.S. universities from 1980-2005.
2. To evaluate the CRSP training model from the perspective of U.S. PIs.
3. To evaluate the impacts of CRSP degree training investments on trainees and host country institutional capacity.

APPROACH

Analytical Framework: The study adopted the modified Kirkpatrick framework (Figure 1) as a guide in evaluating training impacts from four different perspectives—Reaction, Learning, Performance, and Results.

Outputs: Since 1980, the Bean/Cowpea Collaborative Research Support Program (B/C CRSP) has supported 187 students for M.S. and Ph.D. degree training at U.S. universities in agricultural fields critical to developing bean/cowpea research capacity in Latin America, Sub-Saharan Africa, and the U.S. The profile of these CRSP trainees is as follow:
- 39% of trainees were from Latin America, 25% from Africa and 40% from the U.S.
- 46% were trained in Plant Science, 27% in Food Science and 19% in social science.
- 1% enrolled for Ph.D. degree, 9% for M.S. degree.
- 8% male and 42% female.

Survey Responses: Seventy-six trainees responded to the e-mail survey (60% response rate) and 28 U.S. PIs returned their survey questionnaire (90% response rate). Trainee Respondents’ Profile:
- 65% male, 35% female.
- 51% Plant Science; 17% Food Science; 22% Social Science.
- 51% full funding, 28% partial, 21% own funds.
- 61% PhD, 9% M.S.
- 28% currently working in the U.S., 19% currently working in the CRSP host country.
- 46% full funding, 39% partial, 9% own funds.

Major Findings from US PI Survey:
PIs attributed the following strengths to the CRSP training model: a) long-term commitment to research programs, which attracts quality students; b) opportunity for continued collaborations post-training; and c) opportunities for trainees to work on real problems and research topics relevant to the needs of the host country.

Major Findings from Case Studies:
- Tanzania (Sokoine University of Agriculture—SUA): 10 of 11 trainees returned home—most still work at SUA, where they are CRSP collaborators. The CRSP played a major role in developing SUA’s research/teaching program. Trainees had significant impacts through teaching and obtaining external funds to enhance CRSP research projects.
- Honduras (Escuela Agricultura Panamericana—EAP): Through CRSP support, EAP has created a strong regional research program. EAP and CRSP graduates hold key research positions in national programs; By enhancing the capacity of EAP and other regional bean programs, the CRSP has had a major impact on increasing bean production in Central America.

RESULTS

Major Findings from Trainee Survey:
- Factors influencing decision to pursue CRSP-supported degree training: Opportunity to: a) advance professionally, b) gain international perspective; c) study at a specific university; and d) collaborate with specific scientists.
- Learning impacts: a) Opportunity to participate in CRSP research project was highly relevant to trainees’ current work/job responsibility (83%); b) Trainees considered the ability to “design/conduct/analyze scientific research” as the most important knowledge, skills, and attitudes (KSA) acquired from their graduate training. c) Trainees shared their acquired KSAs through publications (66%), seminar/conference (70%), and research supervision of students (66%).
- Return rate: 86% of host country respondents returned to a developing country (79% returned immediately to their home institution). Majority of returnees: earned a PhD degree (86%); specialized in Plant Sciences (69%); worked in bean/cowpea-related field (72%).
- Post-training collaborations: Almost 40% of the trainees reported collaborating with their U.S. professors since completing their degree. A majority of these trainees: from Host Countries (83%), earned a PhD degree (86%), specialized in Plant Sciences (76%), and worked in bean/cowpea-related field (86%).

CONCLUSIONS

This study documents the important role played by the B/C CRSP in strengthening teaching and research capacity in beans and cowpeas both in the U.S. and in host countries. Trainees reported professional/personal benefits from studying in the U.S. — including releasing varieties, awards/recognition, publications, and positions held. The benefits documented by this study justify continued donor investment in graduate degree training of host country trainees. However, further research is needed to document the costs of degree training in the U.S. and evaluate the cost-effectiveness of different models of graduate degree training programs.