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A Brief Review of the Report

Evaluation of On-Farm Water Management Research Project (Pakistan)

Project No. 391-0413

Findings Which Have General Applicability to
Centrally Funded Research, Title XII Programs, and CRSPs

The centrally-funded On-Farm Water Management Research Project (Pakistan) was initiated in 1968 with Colorado State University as the contractor. Total dollar expenditures through the termination date of March 31, 1980 are programmed at $6.47 million. Field work was terminated in September 1979 because of the phase-out of AID activities in Pakistan. The general purpose of the project was to improve the efficiency of water use in order to increase returns to farmers and to LDCs.

The project was formally evaluated during July 1979 by a three-man team composed of Dean F. Peterson, Irrigation Engineer, E. Walter Coward, Rural Sociologist, and James L. Walker, Agronomist. The evaluation was very favorable; the team found the project's achievements to have been quite impressive. A number of the evaluation's important findings are relevant to centrally-funded research, CRSPs, and Title XII programs.

The purpose of this paper is to summarize the "lessons learned" from the project which have general applicability to centrally-funded research projects, Title XII programs and CRSPs.

Human Development and Institution Building

The evaluation team (henceforth, team) states that perhaps the most important lesson learned from the project experience was that every step of project activity involved development of human resources and strengthening of institutions. While demanding of contractor time, the team believes that very little, if any, relevant research would have been accomplished without this effort. Human and institutional development were an integral part of the developmental research effort which the team believes is generally a necessary condition for success.

Project Planning/Design

The team believes there is great merit in designing a research project which permits substantial flexibility for the contractor to work in the host country to identify and plan the specific activities and approaches to undertake in order to achieve the project's objectives. While it is important to insist that research projects have an articulated research theme, a highly structured, highly specific project design may result in work which misses crucial points, especially for projects dealing with

large and complex systems. A better course is to specify the work generally and leave it to the contractor to assess the situation over a relatively long period, perhaps as much as one year, in the field.. This assessment should be followed by early evaluations in which the country mission participates. The team believes, however, that it is desirable for the contractor to be essentially independent from the country mission at least in the early phases of the project. The degree of independence recommended for the contractor makes it even more important that the contractor be able to field a highly motivated, competent team. It also means that AID management may need to more carefully monitor the qualifications of personnel nominated through university contracts.

Project Selection

An important factor to consider when choosing a centrally-funded project to support is the project's prospects for evolving into a developmental program without disruption. The Water Management Research Project is an example of evolution of a centrally-funded project originating from a perceived, important global problem through an identification of specific components of the problem in the field, to application in the host country with extension to other LDCs.

Mode of Operation

Developmental research projects should be dynamic ventures moving into extension and application of the research results as soon as is prudent. It should be a responsibility of the contract team to assist the host country to apply the results. Success in extension and application requires that the research be directed at a significantly important problem of the host country. Because the OFWM research project was addressing such a problem and because the CSU team worked to make it so, the project was, in fact, not a CSU project but rather a Pakistani one.

The opportunity for CSU to feed its research results directly into a development program existed in Pakistan and CSU exploited this opportunity. Participation in the development and review of the program helped the CSU team focus their research to fill specific needs. Such opportunities to feed research results directly into development programs should be provided wherever possible in Title XII programs.

Multi-Disciplinary Approach

All development problems involve socio-technical problems, solutions to which require changes in (and/or adaptations to) intertwined social, agronomic, engineering, economic, and organizational constraints. Social science perspectives are fundamental to many research and development efforts and social scientists should be integrated into such efforts from the very start. One of the strengths of university contractors is the breadth of disciplinary skills they can mobilize to undertake specific lines of work.

A broad interdisciplinary approach was an initial and continuing feature of the Water Management Research Project. CSU assigned qualified and highly committed individuals to the project.

Field Research

The CSU experience emphasizes the need to do research on farms under field conditions and to gather primary data. Without this, the real nature of watercourse problems would not have been identified nor could the results have been credible. Such an approach directly involves the farmer, the most important factor and the real change agent. Understanding the limitations and strengths of farmers and gaining their inputs into solutions are vital to the development of solutions which actually will be used.

Development of Host Country Personnel

The contractor sent a number of host country personnel to the United States for additional training at an early stage of the project. Both Pakistani and U. S. graduate students did thesis research in Pakistan on project problems, thereby keeping Pakistani graduates in Pakistan and introducing young U. S. professionals into development work in LDCs. Cooperative identification of training needs and the participants by host country officials and CSU team members resulted in training to do needed specific tasks. Trainees knew the jobs for which they were being trained and their studies were better focused than those of most foreign students in the United States.

Use of in-country workshops, seminars, and training courses, if properly designed and implemented, are effective ways of accomplishing training. However, more work needs to be done in this area to increase the effectiveness. For example, how can the results of AID-funded research be better integrated into AID training programs?

Funding of Local Costs

It is important that adequate in-country resources be available to a research project if centrally-funded field research is to be successful. If a project is to really be a host country one, that country's commitment must be more than a token one. The team suggests, however, that a modest level of contract funds be made directly available to the contractor. This would make it possible to avoid costly, effort-consuming, prolonged delays in implementing some unforeseen activities required for the success of the project.

Need for Long-Term Efforts

The team strongly stresses the importance of a long-term commitment of sustained effort for research projects that are as broad and complex as the OFWM research project. The latter took twelve years to reach its present stage of maturity. The team does not see how this period could have been compressed.