

PD-ABB-823

683411

FY 82 EXECUTIVE SUMMARIES

ASIA/DP  
Office of Evaluation

## PREFACE

In keeping with AID's increased emphasis on using evaluation findings in decision-making, the Asia Bureau has prepared this collection of executive summaries of evaluations undertaken for the Bureau during 1982.

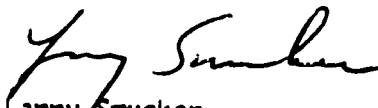
Over the past several years, both the AID Administrator and the Congress have emphasized the importance of using evaluation findings, especially in project design, review and approval processes.

Most recently, this concern was expressed in an AID directive (November 3, 1982) which requires that issues papers prepared for project review are to provide a brief analysis of the project based upon evaluation findings. The directive also states that project approval memoranda prepared for the Administrator are to contain similar analyses.

This volume provides both a record of Bureau evaluation accomplishments as well as concise, easily accessible information on the outcome of specific projects. It should be noted that the actual number of evaluations conducted in 1982 was, in all likelihood, somewhat higher than the number of evaluations reported in this volume, as AID/W Asia Bureau staff did not have access to all evaluations completed during the 1982 fiscal year. This problem is being corrected as missions have been requested to forward completed reports to AID/W.

It is hoped that this volume will be used as a reference both by project designers in the field and project reviewers and decision-makers in AID/W. Where appropriate, a new section, Project Design and Policy Implications, has been added to the executive summary format. This section should be particularly useful for project designers and reviewers.

This compendium of sixty executive summaries was written by Philip M. Brandt, formerly the Regional Director for Family Planning International Assistance's South West Asia Office, and edited by Susan M. Brandt. Copies of the evaluation reports referred to in the pages that follow can be obtained from ASIA/DP.



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## EVALUATION SUMMARY OF THE AGRO-CLIMATIC/ENVIRONMENTAL AND MONITORING PROJECT - BANGLADESH

PROBLEM & OVERVIEW. Bangladesh is frequently subjected to violent, unpredictable climatic episodes including cyclones, hurricanes, excessive rainfall and drought. These forces cause great human tragedy and inflict catastrophic physical destruction, all of which compounds the critical problems faced by one of the world's least developed countries. The use of space age technology to predict and forewarn the governments and populations of historically affected and adversely impacted areas is one of the obvious and benign benefits of this technology. The United States has established global programs, through NASA and National Weather Service/National Oceanic and Atmosphere Administration (NWS/NOAA), which provide access to satellite imagery that can be of immense utility to governments in disaster prone areas.

U.S. ASSISTANCE. The Agro-climatic/Environmental and Monitoring Project (ACEMP) (No. 388-0046) is a small part of the larger Bangladesh Disaster Alert Project (BDAP) financed by USAID. It was funded as a 15-month, \$8,790 grant of which \$5,900 is AID's share. The purpose of the project was to sponsor the trip of a meteorological expert from the Overseas Operations Division of the NWS/NOAA to Bangladesh. BDAP's goal is to provide the Government of Bangladesh (BDG) with an optimized system for reception and processing of information received from various weather data gathering satellites including provision of a ground station capable of receiving GMS and TIROS-N satellite signals. The BDAP's purpose was to improve the planning and management of resources related to agriculture and water management by upgrading BDG's capability to obtain, analyze and disseminate agro-climatic data.

PURPOSE OF EVALUATION. The consultant from NWS/NOAA was to perform an annual review of BDAP in fulfillment of the requirements of in-country project implementation. The evaluation consisted of a one-day schedule of visits with personnel of NASA, NWS/NOAA, USAID Mission, BDG Meteorological Department, Office of Cyclone Preparedness and SPARRSO.

### FINDINGS.

1. The advanced meteorological groundstation has been installed and is in use producing an almost regular flow of imagery to the Meteorological Department. SPARRSO has carried out studies of cropping patterns and forest surveys on a sample basis. The infrastructure and facilities will meet the needs of the project. A Muirhead Model #560 facsimile recorder was substituted for the original Laser facsimile device specified in the work statement. This change is for the better as the Muirhead recorder does not require special paper. There were several technical problems with the Muirhead recorder but all were rectified by a P & P Industries representative on a subsequent technical assistance mission.
2. The present team may not be capable of maintaining the equipment satisfactorily without additional training and ongoing supervision. Although the training program was well organized and presented, the technicians trained were limited in their abilities to absorb the training related to maintenance of the ground station equipment.
3. The following materials and documentation are needed before this first phase of installation can be considered completed:
  - (a) a series of grids for NOAA 7 of the Bangladesh area;
  - (b) a maintenance manual for the Muirhead recorder;
  - (c) recommended consumable materials stock level;
  - (d) completion of the Acceptance Test documentation;
  - (e) Final Acceptance Report.

4. The acceptance of the French equipment package will place a serious burden on the scarce management and scant foreign exchange resources of SPARRSO. The attempt by the French government to sell its technology to the BGD was an unforeseen development. However, the project's objectives can be achieved despite this new factor if major maintenance activities are shifted to the private sector and funded with local currency.

5. The training of personnel in the full range of applications is behind schedule due to the five-month delay in recruiting the long term consultant responsible for this activity.

PROJECT DESIGN & POLICY IMPLICATIONS. The most important problem relates to the development of a maintenance and spare parts supply capability in Bangladesh. The Operations and Maintenance component of this project needs to receive far more attention. The success of the applications component is the key to achieving the project's purpose. In general, the transfer of high technology to a government entity must occur in concert with the development of similar capabilities in the non-government sector. In the context of this and similar projects, the government must have a competent private sector electronics industry from which it can obtain maintenance service, spare parts and peripheral equipment. Government owned and managed technology should not get too far ahead of the private sector's capability to support its use. Otherwise there is a dependency established between the donor country and the high technology project agency which is not sustainable and which is likely to impede and delay the achievement of the purposes for which the investment has been made.

#### RECOMMENDATIONS.

1. The Project Assistance Completion Date should be extended by one year to September 1985 in order that the training of SPARRSO and other user agency personnel in the full range of applications may be completed.
2. SPARRSO should set up a procurement system for consumables (chemicals and paper) required to operate the facilities.
3. SPARRSO must develop a service contract with local firms to ensure proper maintenance of the equipment.
4. SPARRSO must prepare and provide to user agencies (meteorology, agriculture, fisheries, forestry, geography, disaster preparedness) a catalog of its services.

This evaluation was conducted and written by Bernard Zavos, Chief, Overseas Operations Division of the NWS/NOAA and Paul O'Farrell, Project Officer, USAID/Dacca. M.U. Chaudhury, Director of SPARRSO and M. Chatman and R.Barnes of USAID/Dacca also participated in its preparation.

## TECHNOLOGICAL CHANGE, PRODUCTIVITY AND EMPLOYMENT IN AGRICULTURE - INDONESIA

PROBLEM & OVERVIEW. Indonesia has experienced rapid technological change based on high yielding varieties (HYV) of seeds, heavy application of fertilizer and greater control and increased use of water. The spread of this technology, often labeled the "Green Revolution", took place from the late 1960's and was accompanied by fundamental changes in the political-economic system and, hence, in policies which substantially affected developments in agriculture. The change in government in the mid-1960's also meant, for instance, a massive rehabilitation program of irrigation, greater availability of fertilizer, a change in pricing and procurement policies, and far reaching changes in political and power relationships in the villages. Between 1969 and 1979, the Indonesian Central Bureau of Statistics conducted annual farm management surveys in almost all provinces of Indonesia. The purposes of these surveys were to (a) obtain information for estimating agricultural GDP; (b) assist other departments in agricultural sector planning; and (c) estimate income per hectare of foodcrops. The enormous amount of data available from the ANNUAL AGRICULTURAL SURVEYS (Surveys) also cover the spread of the new technology. By themselves, the Surveys do not facilitate government planners and developmental assistance agency personnel in formulating policy and defining strategic direction for Indonesian agriculture.

U.S. ASSISTANCE. In an effort to retrieve data from the many survey questionnaires completed and accumulated, the Central Bureau of Statistics, Gadjah Mada University and Boston University carried out a joint project to transfer data to computer tapes, edit it, and conduct a series of analyses of some of the major agricultural policy issues confronting Indonesia, particularly trends in rice production and employment. The joint project (No. G.-1355) was funded by USAID and was focused mostly on data pertaining to Java and Bali.

PURPOSE OF EVALUATION. This is an analysis of the Surveys of the Central Statistical Office with regard to rice agriculture particularly in Java and Bali but also in the outer Islands between 1968 and 1978. The simultaneous occurrence of broad changes makes it difficult to disentangle the effect of new technology from the effects of the broader changes taking place in society and the economy. Disentangling casual factors is especially difficult because the surveys were developed primarily to elicit information on production and on inputs used and do not cover many other aspects of agriculture. Ambiguity is inherent to the foregoing type of analysis: one cannot adequately correct for differences in quality of land, "management bias" and the fact that HYV seeds are seldom used without assured water supply and substantial amounts of fertilizer. HYV seeds are more productive only because they can effectively use more of such other inputs. These problems are inherent in the analytical technique and constrain all production function analysis, limiting the reliability of the conclusions. Moreover, the number of interviews conducted is so large that differences in standards of interpretation are bound to occur. Finally, the surveys generally focus on rice agriculture and gave much less attention to other crops.

### FINDINGS.

1. The shift to new rice technology (seed, fertilizer, water) has clearly increased yields when compared to traditional methods of farming and increased yields characterize both those using modern and those using traditional methods.

2. Participation in government package programs which provided seeds, fertilizer, pesticides and credit increased very rapidly at a rate comparable to those in the most highly commercialized agricultural systems in Europe or the United States. A central feature of the package is credit. Cultivators may participate essentially to obtain this government subsidized credit. Participation among Java and Bali cultivators increased from 30% to 85%. The rate of adoption among cultivators in the Other Islands was slower, from 10% to 44%.



3. The best index of new technology spread is the adoption of HYV seeds. By the late 1970's, three-quarters of all plots were planted with HYV. This is probably close to the upper limit, given the taste preference for local varieties and the lack of suitable HYV seed for some areas. Thus there is limited scope for a further shift from local varieties to HYV seed. However, HYV seeds by themselves show no significant independent effect on output but are heavily dependent on more fertilizer for best results.

4. By importing fertilizer, Indonesia could produce almost 5 times as much rice as it could have imported. At world prices, every dollar spent on importing fertilizer would save about \$5 in rice imports. A heavy subsidy for fertilizer has contributed significantly both to the increase in fertilizer use and to the spread of modern HYV seed. In general, an increase in the combination of all material inputs of 10% will increase output by 3%.

5. Greater availability of irrigation is another reason crucial to the widespread, successful adoption of the new technology especially on Java and Bali. Although multiple cropping of rice covered about 40% of rice land before the spread of new technology, since 1971, it has increased about 2% per year. Better control of water supplies and initiation of multiple cropping increases output by 12% per crop, other factors remaining unchanged. The level of irrigation coverage is significantly higher for the larger farm units and the gap between larger and smaller units has been increasing.

6. The rate of technological diffusion between larger and smaller holdings is not great and should not be a major cause of income disparities. The gap is 30% or less and small-holders appear to have adopted the new varieties rapidly and reached high levels of adoptions. For the two smallest size categories, HYV adoption was 61% and 66% respectively.

7. The shift from traditional to modern technology has largely been completed, at least for Java and Bali; further gains from that shift will not be available in the future. Yield increases will be more difficult to achieve and will depend on better management, the development of still higher yielding seeds, expanded irrigation and the use of additional inputs whose benefits exceed their cost.

8. A high percentage of crops are damaged each year, averaging between 20% and 30% for Java and Bali and above 30% for the Other Islands. The factors include a sharp increase caused by less disease resistant strains of HYV during 1976-1978, infestations of the brown planthopper where HYVs are more widespread, and rat damage.

9. The share of the rice crop marketed doubled from 1972 to 1978 for Java and Bali and a larger proportion of the rice grown from HYV seeds is marketed. There is some indication that the increase reflects a shift from payment in kind to payment in cash for labor as well as increased production and taste preferences for local varieties.

10. Nominal wages reflect the great absolute poverty of agricultural labor, especially on Java. The data on the share of wages for hired labor confirm the data on the real wage bill: from 1971 to 1978, the income of hired labor was a declining share of the value of production. Income distribution in rice agriculture almost certainly became less equal. Even in better paid rice agriculture, workers' income appears to be only one-third or less of the national average. Wages are higher for males than females by as much as 50%. A 6% per year rise in real wages would require a 2% to 4% decline in employment. To reduce employment by 2% to 4% to put pressure on wages, some 300,000 to 600,000 workers per year would need to be found jobs. The labor force is increasing about 3% per year while alternative jobs outside agriculture are growing more slowly.

11. For all non-labor inputs combined, the spread of fertilizer and irrigation tends to increase labor use; that of machinery and HYV varieties to decrease it slightly. Multiple cropped land uses

about 15% more labor per crop than single cropped. The adoption of the sickle as the chief tool of harvesting would lead to a decline in labor use. Hired labor and the landless will suffer the combined effects of population pressure and unchanged total employment, including the continued shift to less labor use intensive technology.

12. Agricultural development will not be able to absorb a large share of the increasing labor force. If double cropping increases at 2% per year, labor demand will grow but by less than 2%. Yet the labor force is increasing at a rate close to 3%. It appears that the total number of family and hired workers employed per plot remained essentially unchanged from 1972-74 to 1976-77 in Java and Bali.

POLICY IMPLICATIONS. The data from the surveys lead to pessimistic conclusions about the potential for employment in rice agriculture. With the labor force increasing about 3% per annum, and alternative jobs outside agriculture and on the Other Islands growing slowly, it would be desirable for the agricultural sector, especially rice agriculture, to absorb more labor. But past trends make this unlikely. The employment growth trend in the last decade was stagnant. The factors, mentioned in the Findings, making for greater and lesser labor use probably offset each other and are likely in the future to continue to do so. With continued population pressure, (small) holdings may decline in the future and hired labor will continue to be replaced by family labor. A stagnant demand for labor means that laborers could find employment only at a real wage that did not increase. If wages are to rise, then not only would all the additions to the labor force have to be absorbed outside rice agriculture, but large numbers of additional workers would have to find alternative employment. It is not desirable to further reduce the size of already small operating units, nor to increase the number of family members per hectare. And it certainly is not desirable to decrease the real wage. So the desirable means for increasing labor in rice agriculture appears to be to expand irrigation and to raise yields. However, this effect will be limited as it is unlikely that yields can be raised by more than 4% per annum. At best, this would increase harvest labor by 1.6%. Since harvest labor is roughly one third of all labor, total labor would rise only 0.5%. If double cropping were to increase by 2% per year, total labor used would rise 0.3%. Labor use then might increase less than 1% a year per crop as a result of rapid increases in yield and double cropping. Controlling crop damage could affect yields and, therefore, affect labor use because data show that as yield increases so does labor use. About 1.5 million jobs a year need to be created for Javanese workers alone through transmigration or in non-agricultural activities in Java. This is a considerable task. The alternative would be wages in (non-cash crop) agriculture that increase more slowly than average income of the agriculture sector, a scenario that will only worsen the income distribution gap.

#### RECOMMENDATIONS.

1. One of the most effective means for increasing output would be to limit damage to the crops. The development of planthopper resistant strains is clearly important. Rat damage has also become significant.
2. Expanded irrigation and the encouragement of HYV multiple cropping is an effective means for increasing output and labor use and improving income levels of workers.
3. It is particularly desirable to increase fertilizer use by small-holder cultivators whose productivity is particularly high. Since they are especially adverse to taking risks, steps to reduce the risk they face and to increase their access to credit are especially desirable.

This analysis was performed by Budiono Sri Handoko, Gillian Hart, Gustav Papanek and Ace Partadiredja as a cooperative project by Gadjah Mada University, Biro Pusat Statistik and Boston University.

## SEED PRODUCTION & INPUT STORAGE EVALUATION REPORT - NEPAL

PROBLEM & OVERVIEW. As part of its general strategy of agricultural development, the Government of Nepal (HMG/N) needed to develop its capability for commercial production, processing and distribution of seed in quantities and qualities sufficient to meet the demands of the development program. Without improved seed production, programs such as the Integrated Cereal Project, Resource Conservation and Utilization, and Rural Area Development cannot succeed. Although most seed is currently produced and stored by individual farmers, this does not allow for distribution of new varieties or for varietal renewal of farmers' seed stocks after several generations. New distribution channels for new varieties need to be established so that these can enter the local seed system without transport of large quantities of seed to all parts of the country, a task that is hindered greatly by the inaccessibility of many parts of the country. Local production and storage of seed in the hilly areas should improve the availability of good seed, speed introduction of new varieties, reduce HMG/N transport subsidies, foster private enterprise and support agricultural production programs.

U.S. ASSISTANCE. A five-year grant agreement for the Seed Production and Input Storage Project (SPISP), (No. 367-0118), was signed on August 31, 1978. Total project costs were projected at \$4,031,000 including \$941,000 for Technical Assistance to be provided by the International Agricultural Development Corporation (IADS); \$679,000 for participant training; \$2,252,000 (\$1,418,000 from AID) for construction of up to 69 buildings; \$793,000 in commodities; and up to \$100,000 for sociological and physiological studies. The project's purpose is to help HMG/N establish a labor intensive system for producing, testing, processing, storing and distributing seed of the major food crops, and of storing and distributing all inputs in the production of these crops. Project objectives called for strengthening the staff of the Agricultural Inputs Corporation (AIC), the implementing agency, and the seed division of the Ministry of Agriculture; and for developing a seed production distribution system which would depend on the private sector for support and operation. Six Peace Corps Volunteers were to be assigned to the technical assistance component and a "Seed Certificate Law" was to be passed by HMG to facilitate operation of the seed distribution system.

PURPOSE OF EVALUATION. This evaluation is the project's first and constitutes an in-depth assessment of accomplishments, problems and issues, and presents a number of recommendations after 36 months of operations. Documents reviewed included the Project Paper, the Grant Agreement, Project Implementation Letters, Contract Reports, AID/Nepal Project correspondence and training documents. Interviews and discussions were held with contract personnel and HMG/N officials. An Issues Paper was developed and circulated prior to the first formal review session.

### FINDINGS.

1. The project is not on schedule, is making very slow progress, shows a lack of forward planning and absence of crucial information, and has expended only 5% of its budget after completing nearly 40% of its life. Seventeen months elapsed between the signing of the project's Grant Agreement and that of the contract to implement the project. Two more months elapsed before the contractor's Team Leader arrived in country. During the initial stages of the project, HMG/N had yet to agree internally on where the project was to be located and managed. HMG/N did not assign a full time Project Coordinator to the project either. AID was reluctant to speed the process of implementation and frequently shifted responsibility for project management within the Mission. The initial Project Supervisor's performance was inadequate which necessitated his replacement, which took place during this evaluation.

2. Delay in implementing construction coupled with inflationary pressures will create a shortage of funds for this component. Construction contracts for only two sites have been awarded; eight other sites have been identified and confirmed. However, HMG/N has yet to identify the other physical locations and to deliver its full annual contribution or budget projections indicating how the physical construction will be programmed over the life of the project. At current financial commitment levels and budget authorizations, only 43% of the planned construction can be completed.

3. Participant training is behind schedule with only 7 of 12 authorized long-term participant slots for 1981 filled. Training in countries other than the U.S. (India and other Asian countries) was recommended by the Contractor as being more cost effective. However, positions for Nepalese to train in India is limited by the government of India on an annual basis.

4. Seed processing and ventilation equipment can be produced in Nepal thereby reducing the quantity and cost of this equipment which was to have been procured abroad. The change in the equipment list will not be made until the actual equipment is locally produced.

5. The project has not identified locations where farmer seed producing groups might work and has not specified how the farmer systems will work to produce, process, store and distribute improved seed. The need for socio-anthropological research to provide guidelines for establishing effective ways of securing active community participation in seed production, storing and distribution is vital to the overall success of the project.

PROJECT DESIGN & POLICY IMPLICATIONS. The project's purpose is still a valid one and can yet be accomplished. The critical area in establishing a seed production and distribution system is between the storage facilities and the farmers. In order to understand the dynamics of how current, local seed producers operate and to be able to project how similar models can be developed in those areas selected for site development, basic socio-anthropological analysis is essential. Such research is normally fundamental to a project's planning and design processes. That project administration has neglected this need, that no full time Coordinator was assigned to the Project nor workplan produced, and that HMG/N's financial obligation has not been met thus far is indicative of the more fundamental problems with this project's design and leads to questions regarding the strength of HMG's commitment to this project. HMG/N's attention has been focused on where the project was to be located and how it was to be managed, decisions that might better have been made before the signing of a Grant Agreement. The decision to focus the project primarily on the Hills and inner-Terai areas is important for AID's overall development strategy in Nepal. Although the Review Team was unable to identify in the Project documentation exactly when this decision was made, the decision is implicit in that several subsequent decisions were made based on that one. AID was extremely slow in selecting and contracting for technical services and the Mission took a "hands off" approach in the initial implementation phase. The lack of a consistent responsible person within the Mission for the project also is indicative of the low priority assigned to the project by AID/Nepal administration in the early phase. If this project is to succeed, it must be restructured and emphasis placed on management and on developing the institutional capability to support a system of seed production and distribution rather than on construction of new facilities.

#### RECOMMENDATIONS.

1. The project should be extended by one year from August 31, 1983 to August 31, 1984 and the IADS contract amended accordingly.

2. The project should be restructured to strengthen the institution building aspect (training, management, systems) and deemphasize the construction component.

3. HMG/N should reconfirm its commitment to the project and to its contributions as agreed to including a Project Coordinator who gives sufficient time to the demands of administration, a full time Project Engineer, 3 full time seed technicians, adequate technical staff and sufficient funds for project operating costs.
4. HMG/N and IADS should conduct appropriate socio-anthropological research and specify the scope of this research in plans to be approved by USAID.
5. Selection of pilot sites and mini-seed houses and small warehouses should be based on completed baseline site surveys and operational plans standardized and approved by AIC and USAID. All selection work should be adequately documented and emphasis placed on private sector involvement in at least two field sites.
6. A formal joint review should be conducted in mid-1982.

This evaluation was conducted by R.B. Singh, General Manager, AIC; W.B. Nance and R. Shrestha, PRM/USAID; James Rogan, RLA/AID; Peter Rood, Acting Project Supervisor, IADS/SPIISP; Dr. Badri Kayastha, Project Coordinator, SPIISP; D. Pickett, ARC/USAID; D. Mutchler, A/FM/USAID; J. Ballantyne, PDIS/USAID; and D.J. Brennan, Director, USAID/Nepal.

## EVALUATION OF THE FRESHWATER FISHERIES DEVELOPMENT PROJECT - PHILIPPINES

PROBLEM & OVERVIEW. Although Filipino fish production has increased in recent years, it is still insufficient to meet the needs of the nation's 50 million people who depend extensively on fish in their diet. While average protein intake for the population as a whole is slightly above minimum requirements, intake for farm workers is 9% below the minimum. Total fish production has increased 25% over a five year period from 1975 while population growth for the same period is 14%. Increased production has been largely absorbed by exports, however. Fish imports have declined while a doubling of exports since 1975 has cut into domestic fish consumption. In addition, many fish experts feel that the catch from surrounding seas is approaching maximum sustainable yield. At the same time, costs associated with the fishing industry are rising. Aquaculture has the potential for meeting this need for sustained increases in production. While over 90% of the fish currently produced by aquaculture are milkfish, which are grown in brackish water, there is virtually no freshwater industry. Over 1.4 million hectares of irrigated rice paddies and more than 126,000 hectares of swampland could be developed into freshwater fish ponds. In 1970, the Government of the Philippines (GOP) initiated a broad program to achieve improved nutrition, and increased production of fish was given special emphasis, a significant part of which was aimed at aquaculture.

U.S. ASSISTANCE. AID has assisted the GOP with three closely related aquaculture projects during the period 1971-1979 with total assistance of \$1.4 million. These projects sought to improve aquaculture research, train manpower and establish extension programs. In 1977, USAID funded an in depth fisheries sector study to identify feasible action for AID involvement in furthering fisheries development. This study led to The Freshwater Fisheries Development Project (No.492-0322), which was signed on March 30, 1979. It called for a five-year effort to establish a freshwater fish hatchery extension training center (FFH-ETC) in Central Luzon. The GOP, through the Bureau of Fisheries and Aquatic Resources (BFAR), the implementing agency, was to provide about \$3 million on an in kind basis. AID's contribution of \$1.5 million was earmarked for commodities, technical support, advisory services and training to be provided by Texas A & M University (TAMU). TAMU was to provide short and long-term consultants, out-of-country training for BFAR personnel, assistance in improving freshwater extension services, and procurement of selected commodities. The project's general objectives were to increase the supply of freshwater fingerlings, distribute fish fingerlings to rice-farmers and small-scale pond operations, improve the flow of information to farmers and assist farmers to produce fish and grow fingerlings. More specifically, the project hoped to "stimulate" the establishment of 7,500 fish and rice-fish farms, and increase freshwater production in Central Luzon to 1,350 metric tons on rice-fish farms and to 1,837 metric tons on intensive fish farms by the end of 1983.

PURPOSE OF EVALUATION. The purpose was to develop recommendations for improved implementation and accomplishment of project purposes. The Team visited the project site at Munoz, Nueva Ecija Province and discussed its findings with the Director of BFAR and the Chief of USAID/ORAD in Manila.

### FINDINGS.

1. The Project is approximately 18 months behind schedule. Hatchery infrastructure is about 90% complete; buildings only 50%. Unfavorable weather, administrative difficulties, poor performance by contractors, and delays in the delivery of commodities are the critical factors. An effective administrative and logistics system to supply inputs on schedule is needed.
2. Production of fish fingerlings has started. The first crop of 150,000 tilapia were ready by February, 1982. They were grown in incomplected ponds, thus delaying pond finishing work. Production was started to reduce implementation schedule delays.

3. Some farmers are switching from rice-fish to fish monoculture because it yields higher profits and requires less labor. Tilapia as a food fish has had excellent public reception. Rice-fish farming still presents some technical problems. Farmers had concerns about the possible harmful effects of rice crop pesticide residues.

4. Some duplication of aquaculture development effort has been observed. The National Food and Agriculture Council (NFAC) in the Ministry of Agriculture is also promoting rice-fish culture. FAC staff is training NFAC extension agents while BFAR agents are trained by FFH-ETC. The two programs have different qualifications for farmers' participation.

5. There is no developed credit or financing system to support freshwater aquaculture development. The exception is in Laguna de Bay. Previous studies by a unit of a local bank found that it was not feasible to support the rice-fish program.

PROJECT DESIGN AND POLICY IMPLICATIONS. The project as conceived is soundly designed. Tilapia is well received, although carp are less acceptable. Tilapia in mono- and rice-fish culture is spreading beyond project boundaries. The critical factors primarily responsible for the 18-month delay are construction difficulties, poor logistical support by the implementing agency, poor communications within BFAR and between BFAR and FFH-ETC personnel. While AID source-origin requirements are a frequent source of delay and frustration to project managers, AID procurement policy is unlikely to be altered significantly. This condition should always be carefully factored into Logical Frameworks and project timetables should be made flexible. While waivers on specific items are possible to obtain, there is an added dimension of extra administrative effort and personnel predilection that must be considered in such requests. In project planning stages, it would be beneficial to hold more extensive discussions with prospective implementing agency personnel. The objectives of such meetings would be to sketch out more carefully internal communication channels between implementing agencies' central administrative units and project implementation extension units. Hopefully, frequent delays attributable to poor internal communication could be alleviated to some extent. If Project Planners spent more time adequately familiarizing implementing agency personnel with AID procurement and accountability procedures, projects might be developed with more realistic timeframes. Accountability for delays might be more easily pinpointed as well. The implications might well be rapid, less trouble prone project implementation, ease of monitoring and fewer recommendations for extensions of Project Activities Completion Dates (PACDs).

#### RECOMMENDATIONS.

1. Completion of ponds should not be postponed beyond the end of the current dry season and construction should be closely monitored to ensure quality standards are met.
2. Full production of fingerlings should be postponed until the remaining commodities are received and workers are trained to use the equipment.
3. Training of BFAR Region III and FFH-ETC personnel should be augmented.
4. Coordination within BFAR should be improved and firm links with the MNR and MA/NFAC and with CLSU/FAC should be developed.
5. FFH-ETC personnel should establish criteria for fingerling distribution which are consistent with those already being used by NFAC.
6. Credit programs should be established where possible.
7. More investigation on the possible harmful effects on fish from pesticide used for rice protection is needed.

This evaluation was conducted by Dr. James W. Avault, Jr., Aquaculturist, School of Forestry and Wildlife Management, Auburn University; Prof. J.R. Snow, Fish Hatchery Expert, International Center for Aquaculture, Auburn University; Dr. Herminio R. Rabanal, Consultant (Aquaculture); and Dr. Richard Rhoda, Evaluation Specialist, USAID, Manila.



## EVALUATION REPORT OF THE AGRICULTURAL BASE MAPPING PROJECT - SRI LANKA

PROJECT PURPOSE AND OVERVIEW. In Sri Lanka, as in other developing nations, the process of strategic planning for developmental purposes is primarily impeded by a lack of accurate baseline data and statistically verifiable information concerning the location and quantity of natural resources, the amount and current use of arable lands, the distribution and the demographic characteristics of the population, etc. One of the basic tools essential to sound strategic planning is a set of accurate and detailed physical maps of the terrain. Such maps are particularly crucial to the planning process when major resettlements and/or relocations of population are contemplated, new crops to be introduced, forest lands inventoried for harvesting and reforestation purposes, water sources exploited for irrigation, roads built for access to mineral deposits or for logging purposes, or vector control programs. The Agricultural Base Mapping Project (ABMP) was designed to respond to the mapping requirements of rural development in Sri Lanka.

U.S. ASSISTANCE. The ABMP Agreement (No. 383-T-0045; Loan No. 383-T-20) was signed in February, 1978. The scheduled Project Activities Completion Date (PACD) was November 30, 1983. AID's contribution was to be \$4.5 million; the Government of Sri Lanka's (GSL), \$1,918,000. The project was originally designed to help the Survey Department (SD) of GSL to acquire necessary equipment and technology to meet the demand for the provision of up-to-date maps (1:10,000-scale and 1:50,000-scale) and related data for rural development and implementation purposes. The Survey Department was to receive technical assistance from Resource Development Associates, U.S.A., contracted by AID.

PURPOSE OF EVALUATION. The three purposes of this evaluation are 1) to determine if the project is still necessary to meet the originally defined need; 2) to determine if the project can be completed in approximately two years; and 3) to determine means for completing the project in alternative time spans should two years be found insufficient. In the case of additional time, it would also be necessary to identify additional resources necessary for the SD to sustain and complete the project taking into account any modification that may also be recommended and accepted. Other than informal USAID/SD reviews, no other previous evaluations or assessments have been performed on this project.

### FINDINGS.

1. The pressure on the Survey Department for this type of map service is even greater now than when the project was first conceived and planned. The pace of development activities, particularly in rural areas has quickened. The Project remains a priority of the Ministry of Lands and Land Development. It receives the personal attention of the Secretary of Finance and Planning is managed by a Deputy Surveyor-General, the second level of authority in SD.

2. There have been three major revisions of the project plan which alter the original Project Paper. The most important change is the project's timeframe. Because of late start-up, delays in equipment, supplies and materials procurement and to problems in contracting for facilities renovation, the SD has been forced to recommend new completion dates for the major map series which extend beyond the current PACD. The AID-financed feasibility and design contractor submitted inaccurate source, origin and cost estimates and thus is partially responsible for the delay.

3. SD's April, 1981 revised project implementation plan for completing the two map series is feasible with a few modifications. Priority has been assigned to completion of the 1:50,000 series in a three to four year time span. No specific timeframe has been assigned for the completion of the 1:10,000 series. The specific need for greater detail maps and data can be handled by SD on an assigned priority basis for specific development projects. Such an approach will not impede completion of the 1:50,000 series.

4. Additional equipment, materials, supplies, training and some short-term technical assistance, totaling \$750,000 are urgently needed under this new plan and production schedule. The SD's list has been reviewed by the Evaluation Team who segregated those which are urgently needed and should be procured during the remaining life of the project. The original equipment and supplies budget was grossly underestimated while inflation and procurement delays have aggravated the problem

5. If the SD can keep to its revised plan, as reviewed and commented on by the Evaluation Team, the project's purpose can be accomplished within the timeframe of four additional years. The SD management is capable and staff are active, enthusiastic and hard working. The SD has reached the point where smooth production of the major outputs can be realized. Most activities up to 1981 were of a preparatory nature. Despite problems, this stage is now concluded and the major outputs from aerial photography through final map production can be realized.

PROJECT DESIGN & POLICY IMPLICATIONS. The critical factors in this project's design concern the inaccurate source, origin and cost estimates provided by the AID-financed feasibility and design contractor, the unforeseen cost escalation for certain items, and unforeseen procurement problems which forced the extension of the time originally allotted for procurement. The fact that the SD has continuously reacted to delays by readjusting schedules and implementing operational procedures necessary to begin production indicates awareness of the problems and a flexibility both in dealing with and in taking appropriate steps to correct these problems. USAID Mission staff were found to be aware of the status and problems of major facets of the project, sensitive to the SD's requirements, and to be maintaining excellent rapport with departmental personnel. The project, while technically three years behind schedule, has actually only recently entered what could be designated as production implementation. A policy of continuing support for the project and a close monitoring of the major output schedule should help stabilize the project.

#### RECOMMENDATIONS.

1. The SD should initiate production of the 1:50,000-scale map series immediately, using their proposed approach, with completion to be achieved in three to four years. Limited production of greater detail maps should be done simultaneously only for designated high priority projects and areas.

2 SD should avail itself of the planned U.S. Geological Service technical assistance and immediately implement aerial triangulation capability.

3. SD should initiate procurement of critically needed additional equipment, supplies and materials. A two-year inventory of materials is recommended.

4. SD should review its critical training needs and begin scheduling training for key individuals as well as key operational units as soon as feasibly possible.

This evaluation was conducted by A. Norman Brew, Team Leader, Chief, Branch of Contract Management; Richard D. Kidwell, Cartographer, Office of Research; Randle W. Olsen, Chief, Branch of Geometronics, all of the U.S.G.S., National Mapping Division; and Paul Prentice, Co-Team Leader, Development Associates, Inc.

## EVALUATION OF THE RICE RESEARCH PROJECT - SRI LANKA

**PROBLEM AND OVERVIEW.** Sri Lanka's largest agricultural crop is rice. During the last 20 years the capability of Sri Lankan farmers to produce more rice per acre has improved from 36 to nearly 60 bushels. Growth of production, however, has not been even. There was a serious decline during the drought between 1971 and 1976. In 1976, with population growth around 1.7% and per capita consumption of rice at 104 kilograms per annum, 30% to 40% of which had to be imported, the Government of Sri Lanka (GSL) became anxious to abate the decline in national rice production. GSL, through the Department of Agriculture, approached USAID for a long-term loan to assist in improving GSL rice research capacity and capability, expanding the technology base for increasing rice production and intensifying land use. The ultimate objective was attaining self-sufficiency in rice production.

**U.S. ASSISTANCE.** Under loan No. 383-T-016, USAID provided \$3.8 million to assist the GSL Department of Agriculture through technical assistance, training, and commodity procurement. The project began in May, 1977 and project activities ended June 30, 1982. There was a 2 year extension to June 30, 1984 for the training component. There were four major components in the project: (1) resource capability surveys, (2) rice research (breeding), (3) cropping systems, and (4) farmer field trials. Specific objectives were to develop and implement a multi-disciplinary program of variety improvement, to expand rice-based intensive cropping systems, to give long and short term training to Sri Lanka staff, and to establish more effective linkages between research and extension through a field trials program. The GSL/Department of External Resources contracted with the International Rice Research Institute (IRRI) and the Institute of International Education (IIE) for the technical assistance and training components.

**PURPOSE OF EVALUATION.** Previous evaluations were held after 1 year (August, 1978) and after 2 years (May, 1979). Both evaluations noted problems with team leadership, delays in commodity procurement, delays in getting long term training started, and lack of progress on the field trials portion of the technical assistance program. This evaluation was held to measure progress in meeting the objectives of expanding and extending the technology base for increasing total rice production through increased yield per acre and intensified land use. The team reviewed project documents, visited major research stations and rice growing areas, and held two days of discussions with Sri Lanka Department of Agriculture officials. Interviews were also held with farmers to assess project impact.

### **FINDINGS.**

1. Rice production during the project period rose by 70% and now equals 85% of estimated self-sufficiency; however, factors such as weather, higher prices for paddy and better availability of inputs make it difficult to quantify increases due solely to the project. Farmers increased their yields per acre from 49 bushels in 1977 to 58 in 1982 by diversifying cropping patterns. Total production was 107 million bushels in 1981 compared to 80 million in 1977. The full impact of the project is yet to be measured. Technical assistance and professional improvement provided by the project will have a continuing beneficial impact for many years to come.

2. The technological base for rice research capability has significantly increased. Application of the completed resource capability survey permits better identification of specific agro-ecological zones. This enables rice researchers to tailor improved varieties and practices for specific environments. Technical assistance and professional improvement provided through the project will have a continuing beneficial impact for many years.

3. Twelve rice varieties were released during the life of the project, one of which (Bg 276-5) resulted from the project. Since it takes a minimum of 4 to 5 years to produce a new variety, other varieties now developed as a result of the project will be released in coming years.

4. The cropping system program has been successfully introduced in four sites with a fifth site under development. Baseline surveys were conducted at each site. Testing of improved systems is underway. Farming patterns of cooperating farmers are being monitored. The rates of adoption of recommended practices are being surveyed. However, the reviewing and processing of data from the sites by the Agricultural Economics Division has been hindered by the delay in acquiring the micro-computer purchased for the project. The national coordinator for cropping systems earned a Ph.D. at the University of North Carolina under this program.

5. The Field Trials Program was never implemented under the project. The project paper planned for the establishment of regional field trial units to be coordinated by the existing national Field Trials Division. Regionalization was delayed until 1978 when a revised plan was completed. However, the major nature of the assignment was not discerned and the technical assistance required to carry out the role of Crop Production/Field Trials was unavailable without adding to the contractor's team. Ultimately, the program was incorporated into a World Bank project on Extension and Adaptive Research.

6. The long term training program produced 2 technical degrees, 34 M.S. degrees, and 2 Ph.D. degrees; and in short term training, 85 people completed courses, mostly at IRRI. A shortfall of 8 Ph.D.s was due to difficulty of finding qualified candidates within the timeframe of the project. Also, there were 70 attendances at international workshops, conferences, and study tours. The extra short term training strengthened the technician grade staff and partially counter-balanced the Ph.D. shortfall; but more Ph.D.s are needed for basic research.

7. Commodities have been acquired as planned but USAID source-origin requirements caused delays and inefficiencies. A major subsequent constraint will be keeping many items in working order due to difficulty of getting in-country service and repair for U.S. origin products.

8. Planned technical assistance was not fully used. Some 180 long-term man-months of technical assistance were planned. This was adjusted by GSL to 132 long-term months and 14 consultancy-months before the contract was executed. Actual use was 108 long-term months and 7 consultant-months. One long-term position, that of expatriate rice breeder, was shortened by 24 months as the original expert completed most aspects of his assignment in 3 years. The changed status of the Field Trials Program also affected actual use.

9. Communications were poorly handled by all parties (contractor, donor, and host country) to the project. The Project Advisory Committee as set forth in the contract was never constituted. This caused delays and misunderstandings. Better coordination on the part of all parties would have permitted the project to have more efficiently reached its goals.

PROJECT DESIGN AND POLICY IMPLEMENTATION. Communication, leadership, and management activities among USAID, the contractor and host country authorities, and AID commodity procurement policies were the most critical design and implementation elements in this project. In particular, whenever called for, a Project Advisory Committee composed of host government, contractor and USAID representatives must be organized at the outset and must meet regularly to discuss operational problems, review progress and plan contingency strategy. The administrative responsibilities of the Team Leader should be carefully determined in terms of quality, quantity and time requirements. AID source-origin requirements, as they now stand, will likely cause delays and problems in implementation related to the country's lack of service expertise, spare parts and working knowledge of repairs to machinery not generally available in the Asian marketplace.

## RECOMMENDATIONS.

1. An impact evaluation should be conducted in approximately five years in order to obtain a full assessment of the impact of the project on Sri Lanka rice production.
2. The program should be continued and expanded to additional sites, but activities should be coordinated with the World Bank Extension and Adaptive Research Project and with the IDRC project to avoid duplication.
3. GSL should consider a continuing training program for Sri Lanka's agricultural scientists. This is needed in order to maintain the present level of training for new employees and for in-service training for present employees.
4. The contractor's team leader should be brought in well in advance of the technical assistance team to facilitate planning and logistics and should not be expected to provide major technical assistance inputs during the organizational phase of the project.
5. AID source-origin requirements should be waived in cases where local service is poor or unavailable.

This evaluation was conducted and written by J. Neil Rutger, Team Leader, James W. Bonner, Josette Murphy, Irwin Gunawardena, and J. Ritchie Cowan.

## FINAL EVALUATION OF THE AGRICULTURAL EXTENSION OUTREACH PROJECT IN THAILAND

PROBLEM AND OVERVIEW. Farmers in Thailand had limited access to Department of Agricultural Extension (DOAE) services. In 1977, The Royal Thai Government (RTG) in cooperation with the World Bank (IBRD) and AID, began a National Extension Improvement Program (NEIP) to strengthen and expand DOAE services to farmers. With a proposed expansion of over 4000 extension personnel, the need to train new and existing staff was recognized. NEIP's training requirements focused on extension methodology and agricultural knowledge. The Agricultural Extension Outreach Project (AEO), was proposed to fulfill these training requirements. NEIP's funding totaled over \$58 million for the first five years. The program focused on the development of DOAE through increased field responsibility with commensurate authority; office, housing and training facilities construction; transportation for extension personnel; and deployment of at least one sub-district agent (KT) in each sub-district (tambon) of the targeted provinces (changwats). In addition, one model farmer (Contact Farmer) was to be identified in each village as a focal point for village-level extension activities. Initially, 33 provinces were included in the program. In 1980, an additional 38 were added.

U.S. ASSISTANCE. AID assistance began in December, 1976 with an inservice workshop for DOAE staff trainers, although the actual signing of the AID loan (Project No. 493-0280: \$3.1 million/FY 77) was on March 31, 1977. Funding totals from the other two agencies included RTG, \$27.5 million and IBRD, \$28.0 million. AID's support (FY 1977-82) was intended to increase DOAE capability to provide technical information to small farmers and "to establish an improved flow of information to and from the farm population in 33 changwats (later increased to 71)." This support included training for extension personnel at all levels. Training emphasis, activities and goals were designed to enable the trainee to help the farmer solve specific production problems, use improved farming techniques, minimize his production risks and/or make greater profits.

PURPOSE OF THE EVALUATION. This evaluation includes three purposes: 1) provide a qualitative assessment of the AEO project, 2) provide specific recommendations for the NEIP, and 3) provide recommendations for additional technical assistance to USAID and DOAE for improvement in the diffusion of agriculture technology. Two evaluations were conducted prior to this one. In 1978, an Interim Evaluation Report found that DOAE staff were able to initiate the training programs with minimal assistance despite bureaucratic delays. This report also noted that the Civil Service Commission had not concurred on the number of Subject Matter Specialists proposed for each operational changwat, a factor which constrained both pre- and inservice training plus on-going support for Kaset Tambons (KTs). The 1979 Evaluation Report noted that training programs typically included extension methodology, then technical content, a practice which made participation ineffective and raised questions about the viability and utility of the training. The evaluation team's visits occurred during the dry season, and observations of demonstration plots were limited to harvested fields.

### FINDINGS.

1. The relationship between research station and extension personnel is ill-defined and there is little interaction between farmers and research staff. One major goal was the research-extension-farmer linkage. The lack of interaction may be attributable to the traditional organizational structure of the DOA in which national and regional level researchers answer to DOA/Bangkok while the DOAE program is province-level oriented. In addition, extension personnel, particularly Subject Matter Specialists (SMS) view the research station as a means of solving immediate problems rather than as a continuous source of new knowledge. A third aspect is cultural. A top-down and bottom-up flow may be difficult to introduce into the Thai culture.

2. The recruitment of staff sufficient to fill all vacancies was affected by the expansion of the project from 33 to 71 changwats. Although 5,300 personnel received pre-service training during the life of the project, the Civil Service Commission's decision to reduce the number of SMSs per changwat from 5 (as per the Project Paper) to 2 or 3 had an obvious impact. Of the 127 SMS staff requests, 100 were assigned. Of the total 3762 KT positions requested, 3,459 were assigned. Still, institutional capabilities of DOAE have been strengthened in terms of trained personnel.

3. The design and content of the technology module need revision and strengthening to improve the expertise level of SMS and KT staff. The module did not follow the Project Paper's plan. It should reflect a decreasing specificity of technology as the level of information approaches the farmer. It does not appear to encourage the design of alternative teaching materials and thus does not take the village situation into consideration. An increased training load impeded development in the quality of the training sessions. Monitoring and evaluation of training was deficient. Training materials seemed inadequate and instructional techniques inappropriate. These shortcomings, when coupled with over-expanded job descriptions and minimal financial support, exacerbated the youthfulness and inexperience of extension personnel and may have affected their ability and reduced their incentive to learn from and capitalize on farmer innovativeness and experience.

4. Extension personnel seemed to be focused on promoting the adoption of established technologies. One of the salient features of the PP was to have been improved linkage with the farmers. The Contact Farmer was to have been the vehicle of dissemination through which the diffusion of new technology to farmers actually took place. There is little evidence that extension agents studied and reported on farmer problems or innovative practices, incorporated their needs into planning guides or that any kind of regular and systematic study, monitoring or evaluation took place.

5. Unfavorable environmental, economic and political factors have resulted in frustration and disillusionment among farmers and extension personnel. Costs of new inputs, new cultivation practices, suitability of soils to new crops, and market prices all affect crop production. An extension project has long-term production increase goals, and the full array of variables must be recognized. SMS and extension research staffs are not now working in collaboration to identify and resolve these issues. It was apparent that demonstration plots were primarily designed for result demonstration; however, the purpose of extension agriculture is to teach farming practices.

6. The economic impact analysis objective of the evaluation cannot be concluded at this time. Basic assumptions underlying the economic analysis need review, particularly those involving productivity and market capacity. Appropriate data for the analysis cannot be retrieved from the past annual surveys. Field time was insufficient for this team to conduct a survey and gather adequate data.

PROJECT DESIGN AND POLICY IMPLICATIONS. The crucial issues affecting the outcome of this project include host government policy, economic and environmental factors. Policy decisions concerning the numbers of changwats and numbers of SMSs assigned to them affected the quality of the training and that of the personnel charged with delivering the program. Market fluctuations in the prices of recommended crops meant that participating farmers were unable to realize prices they had been told to expect. The cost and availability of essential agro-inputs exceeded the purchasing capacity of the farmer. Expanded labor requirements to cultivation patterns competed with non-agricultural obligations of the farmers. The contractors arrived late and there were numerous changes in AID project managers. However, despite such factors, DOEA organizational capacity has developed and has been strengthened. The status of the program is also affected by the slow progress towards fulfilling RTG and IBRD commitments. IBRD reports about 30-35% of the construction of offices and housing has yet to be completed. The project is still in its early stage of development. Although the farmer is unlikely to achieve 100% of the yield potential within two years of adoption, a major start has been made and with astute planning and follow through, the implications of this project will have a far reaching effect on Thailand's agricultural situation.

## RECOMMENDATIONS.

1. A review of the KT's job description should be made and non-extension activities eliminated as experience from other countries suggests that extension effectiveness is reduced when extension agents perform regulatory roles with clients.
2. DOAE and DOA should establish formal linkages to facilitate the diffusion of research to the farmers and to ascertain their needs; and the association between extension personnel and Contact farmers should be emphasized with greater efforts made to relate farmers' needs to changwat level personnel in research and extension.
3. Inservice training programs should be developed and offered to improve the technical and extension skills of all levels of personnel associated with extension programs in DOAE.
4. DOAE should assign Kaset Tambon personnel to fill current vacancies.
5. Reliable yield data from farmers and demonstration plots should be obtained, although an increase should not be considered a major focus of extension work.
6. Kaset Tambon's visits and supervisory schedules should be regular. Allowances should be provided on a timely basis and set at a rate commensurate with anticipated requirements. All KTs should be provided with housing.
7. There is a major issue developing within RTG concerning specialization and diversification. The age-old arguments for both farming systems are voiced by each side. The MDAC ought to examine this issue.

This evaluation was conducted by Mr. Songkram Grachangnetara, Bureau of the Budget and Co-Chairman and Dr. Richard A. Jensen, Team Leader and Co-Chairman.



## ANNUAL EVALUATION REPORT OF THE RAJASTHAN MEDIUM IRRIGATION PROJECT - INDIA

**PROBLEM & OVERVIEW.** The Government of India (GOI) in attempting to improve agriculture production throughout the country has embarked upon a strategy of engaging in bi- and multi-lateral funding arrangements for constructing irrigation infrastructure and facilities. The GOI works with State Governments in identifying suitable areas and in approaching interested donors to develop feasibility plans, and acts as the guarantor and signator of all loans obtained for this purpose.

**U.S. ASSISTANCE.** A five-year project loan agreement (No. 386-0467) between AID and the GOI was signed on June 30, 1980 to provide \$35 million for construction of Medium Irrigation Projects (MIP) and \$500,000 as grant financing for specialized training and studies. The total cost of the project including the Government of Rajasthan's (GOR) contribution is \$58 million. The project is designed to provide financial support to 15 to 20 MIPs (new, on-going and modernization) for developing the agricultural potential of 65,000 hectares. The Project Assistance Completion Date (PACD) is June 30, 1985.

**PURPOSE OF EVALUATION.** The purpose of the Annual Evaluation is to assess progress of physical construction, funds disbursed and status of studies and training activities. This review was conducted in November, 1981 in collaboration with concerned GOR Irrigation Department Officials and is based partly on information available in the "Annual Implementation Review Report" of the Central Water Commission (CWC) dated November 27, 1981.

### **FINDINGS.**

1. There is some delay in the subproject approvals by the CWC Approval Committee. The subprojects have to meet recently established GOI improved design criteria. There is also additional USAID subproject approval criteria. It is hoped that the six on-going subprojects will be cleared by the Appraisal Committee by March, 1982.
2. Fifteen subprojects will be implemented. These include 5 new, 6 on-going and 4 modernizations. These subprojects encompass 174,000 hectares. Construction has commenced but is in initial stages making it difficult to assess progress at this time.
3. Four groups of GOR/GOI officials totaling 20 individuals have completed training in the U.S. Training programs ranged from 1 to 3 months. An in-country training program is scheduled for early 1982.
4. Staffing is emerging as a major constraint to project construction activities. Only 40 sub-divisions are in place on the 15 subprojects; whereas 154 sub-divisions are considered necessary to complete construction on time.
5. Eight subprojects have been selected for baseline studies. Contracts will be awarded shortly and it will take about six months after the award of contracts to generate reports. One additional contractor is being selected to carry out the remaining two studies.
6. Water loss measurement will be conducted in three representative subprojects. These studies should begin in late 1981 on Rabi crops and continue through April, 1982.
7. Expenditure on the subprojects has been low because of initial problems such as land acquisition, delays in selecting contractors and GOR staffing and budget problems.

8. Disbursement is proceeding ahead of schedule. By the period ending March, 1981, \$4.2 million will be disbursed whereas it was estimated that \$4 million would be disbursed by the end of September, 1982.

9. Disbursement of the grant fund totals \$98,000 and further expenditures of \$167,000 have been incurred but not as yet reimbursed. The entire grant will be disbursed by the end of the 1982 fiscal year as a workshop and the award of contracts for baseline and water management studies take place.

PROJECT DESIGN & POLICY IMPLICATIONS. The critical issue affecting project performance is the slowness of the GOR in staffing the sub-divisions. This problem is compounded by the lack of a specific or separate "Design Unit" at the state level for preparation of project reports. This may reflect reluctance on the part of the GOR to commit financial resources to an enlarged staffing load when the nature of this employment is temporary. However, continuing the slow pace of staffing will further compound project implementation, generate frustration at the Central and Donor levels, and create the necessity of a special review process at a later date to assess the need to extend the PACD.

RECOMMENDATIONS.

1. GOR should take immediate action to sanction the required sub-divisions and to staff them on a priority basis.
2. The existing budget allocations of GOR for subprojects should be substantially increased during the remaining project period in order to achieve the construction objective.
3. GOR Irrigation Department efforts should be strengthened to insure CWC Appraisal Committee's approval on the on-going projects.
4. It is recommended that GOR consider establishing a Design Unit at the State Level.

The key GOR Irrigation Department Officials who participated in this evaluation were Mr. C.S. Hukmani, Chief Engineer; Mr. D. M. Singhvi, Rajasthan Irrigation Dept.; Mr. O.P. Mathur, Superintending Engineer; Mr. R.C. Sharma and Mr. V.K. Bairathi, Executive Engineers. USAID officials who participated included Mr. E. D. Stains, Engineering Advisor and Mr. J. Westley, Chief, Program Office.

## EVALUATION SUMMARY OF THE GUJARAT MEDIUM IRRIGATION PROJECT- INDIA

**PROBLEM & OVERVIEW.** The Government of India (GOI) in attempting to improve agriculture production throughout the country has embarked upon a strategy of engaging in bi- and multilateral funding arrangements for constructing irrigation infrastructure and facilities. The GOI works with State Governments in identifying suitable areas and in approaching interested donors to develop feasibility plans, and acts as the guarantor and signator of all loans obtained for this purpose.

**U.S. ASSISTANCE.** The Gujarat Medium Irrigation Project is a five-year effort to provide financial support to Gujarat's Medium Irrigation Projects (MIP) for which a \$30 million project loan agreement (No. 386-0464) was executed between AID and the GOI on August 26, 1978. GOI also entered into an agreement with the World Bank to provide \$85 million for the same project. The project assistance completion date (PACD) is June 30, 1983. Thirty-three MIPs covering 149,000 hectares are to be completed, a network of automatic river gauging stations established and agricultural demonstration plots set up within each MIP. As adjuncts to this project, baseline socio-economic studies are to be prepared for each MIP and a program set up to carry out water loss measurements in several MIPs.

**PURPOSE OF EVALUATION.** The purpose of this Annual Implementation Review was to assess the progress made against planned targets, to determine the status of follow-up action taken by the Government of Gujarat (GOG) on recommendations made in AID's Annual Implementation Review for FY 1981, to identify constraints affecting project implementation and estimate the shortfall in accrued expenditures expected by the PACD. The annual implementation review was conducted jointly with World Bank officials. Six subprojects were reviewed on site. Another five were reviewed with specific project officials. Data on 17 others was obtained from GOG Irrigation Department's Project Planning and Monitoring cell. The FY 1981 review found that many field supervisory positions had not been filled, and, consequently, training was incomplete; that contractor selection for canals and distribution was far behind schedule; that upgraded specifications for canal linings were needed; and that implementation of agricultural development plans and demonstration plots had not made any headway.

### **FINDINGS.**

1. There has been significant improvement in placement of field supervisory staff with 1268 of the 1641 sanctioned positions filled (77%). This is double the number reported in September 1981. Action is underway to fill the remaining slots.
2. Construction of canal and distribution networks is still far behind schedule. A severe cyclone (November, 1982) has further impeded progress of ten subprojects. Selection of contractors has been hampered by the diverse locations of the canals and distribution systems and lack of field officers to negotiate contracts. Most damsites or headworks are nearing completion which should free some contractors to work on canals and distribution systems. The majority of contracts for distribution networks have now been finalized.
3. Most subprojects visited meet with the upgraded canal lining specifications. In two locations, however, old specifications were observed.
4. Implementation of agricultural development plans and demonstration plots has not progressed. There is a lack of coordination between Agriculture and Irrigation Departments. The GOG has issued orders transferring area development works to the Irrigation Department which should facilitate this activity.

5. All river gauging stations are established, baseline studies completed and the water loss measurement program is underway.

6. Twenty-two new and ongoing and six modernization subprojects with a combined total of 225,000 hectares will be implemented under this project. The original 33 MIPs was modified to 28.

7. A disbursement shortfall of \$8 million is anticipated by the current PACD. The project is likely to spend only 70% of its total authorized budget during the current GOG/GOI FY ending March, 1983. Slow implementation and the setback caused by the recent cyclone are reasons for this probable outcome.

PROJECT DESIGN AND POLICY IMPLICATIONS. The critical problems in this project include inadequate staff and budget provisions during the initial stages of the project, the dispersed construction locations of canals and distribution networks, and lack of coordination between Irrigation and Agriculture projects with regard to agriculture development planning and demonstration plot components. The original project paper stipulated that the responsibility for monitoring and review of project implementation would rest with the World Bank. When the slow rate of implementation and poor construction quality became a concern in mid-term, AID took a more active role in project monitoring. This activism may be credited with persuading GOG to remove identified constraints and created an awareness among field officers towards better quality construction. The implementation of agricultural development plans and the setting up of demonstration plots is vital in order to optimize agricultural production in areas brought under irrigation. While the transfer of authority from the Dept. of Agriculture to the Dept. of Irrigation represents movement towards a solution to this problem, the impact that this action will have on implementation of this component has still to be measured.

RECOMMENDATIONS.

1. USAID and the World Bank should consider extending the PACD by one year based upon review of a realistic implementation schedule to be prepared and submitted to the donors by GOG.

2. The GOG Irrigation Department should issue appropriate instructions to all field officers in charge of subprojects to adhere to improved canal lining specifications including modifying existing contracts if necessary.

3. The GOG Irrigation Department should proceed with agriculture development plans and demonstration plots in subproject areas.

This evaluation was performed by D. R. Arora, Engineer, Irrigation & Water Resources; D.R. Shankar Iyer, OSF, Gujarat Irrigation Dept.; and John R. Westley, Chief, Program Office.

## EVALUATION SUMMARY OF THE ASIA FOUNDATION'S RURAL INDUSTRIES PROJECT (MIDAS COMPONENT) - BANGLADESH

PROBLEM & OVERVIEW. The 1971 War of Liberation left Bangladesh's economy in shambles. Private capital had been centered mainly in the hands of a wealthy elite, many of whom were of Pakistani origin. In post-liberation reconstruction, in order to stimulate industrial redevelopment, substantial assistance was secured from multi- and bilateral donors. These relationships, however, allowed little scope for capitalizing small scale entrepreneurs and micro industry. The need to provide assistance to the private sector for developing and expanding small-scale industry led to the formulation of a Rural Industries Project which USAID and other donors have supported in different ways.

U.S. ASSISTANCE. One component of a larger Rural Industries Project supported by USAID is the Micro Industries Development Assistance Society (MIDAS). It is funded through a Private Voluntary Organization (PVO), The Asia Foundation (TAF) by means of a Cooperative Agreement. Its Operations Program Grant (OPG) designation is 388-0042. The project was funded in September, 1981 and, at the close of FY 1982, had spent \$342,000. The MIDAS project was expected to accomplish general goals and specific objectives in its first year. In general, it was to have implemented a small industries development program by acquiring technical and managerial staff and expertise, prepared long-term development, monitoring and evaluation plans and established relationships with organizations which could potentially benefit from its services. Its specific objectives involved providing consultancy services in business development and marketing strategy to a minimum of 18 organizations, organizing data relevant to procuring supplies and raw materials, assisting at least two organizations in preparing specific proposals and identifying potential funding sources and funding at least three viable proposals.

PURPOSE OF EVALUATION. This evaluation was to determine whether the original goals and objectives are still relevant and to what extent they have been achieved. This evaluation is based upon a report prepared by an outside consultant, a report prepared by the Asia Foundation, a review of AID documentation and discussions with knowledgeable individuals.

### FINDINGS.

1. The project has not fulfilled its general goals. It did obtain appropriate registration with the Government of Bangladesh (BDG), but it lacks core staff capability. The definition of its functional role is ambiguous and the Board of Directors is still divided over this question. The project has not established well defined organizational and administrative policies and procedures.
2. The project has not fulfilled its specific objectives. The project has provided (loan) funding for only one project and claims to have provided consultancy services to as many as eight organizations, although only limited information has been received from MIDAS concerning the effectiveness of these consultancies.
3. The original goals and objectives still appear to be useful ones for MIDAS to fulfill.

PROJECT DESIGN AND POLICY IMPLICATIONS. A key critical issue responsible for the project's notable lack of success appears to be failure to develop a working consensus among Board members, management, TAF and USAID staff as to what role MIDAS should play. In addition, the hiring of an inappropriate Executive Director and unqualified consultants hampered project leadership and fulfillment of technical assistance missions. A lack of continuity in TAF representation critically reduced the amount of personal responsibility and support for the development of MIDAS that was expected and needed. The relationship which developed between USAID and TAF concerning authority, responsibility and chain of command was not conducive to productive problem solving and cooperation. If better relationships could have been developed, the project would have been spared at least some external pressure. The major external factor affecting this project during the year was the country's change of government which delayed the registration process and created an unexpected drain of the project's resources.

RECOMMENDATIONS.

1. USAID should execute an amendment extending the cooperative agreement with TAF for one year.
2. The extension amendment should contain built in cut-offs points in case determination is made that MIDAS should be independent or no longer warrants funding.
3. Revised targets for attaining organization viability and providing services to PVOs should be included in this amendment. These should closely follow those proposed in the Project Evaluation Summary

This evaluation was performed by R.F. Barnes, USAID/RDE, Project Officer; H.S. Plunkett, USAID/PRO, Evaluation Officer; T.R. Tiffet, USAID/RDE Project Division Chief; L.K. Crandall, USAID/PRO, Program Officer; and J. Novak, Representative, TAF/Bangladesh.

FOURTH ANNUAL EVALUATION REPORT OF THE AREA COVERAGE RURAL ELECTRIFICATION PROJECT (PHASE I) -  
BANGLADESH

PROBLEM & OVERVIEW: The Government of Bangladesh (BDG) established the Rural Electrification Board (REB) in October, 1977 to initiate, formulate, administer and supervise a program to distribute electric energy in rural areas. Supplying energy to rural areas is considered a fundamental component of the rural development strategy and will facilitate small industry and business development, generate employment, and facilitate healthcare, literacy and other development goals. Rural electrification is to be accomplished through the formation of member-owned electric societies (PBS) with the REB acting as banker and advisor to the rural electric systems. The program objective calls for nation wide coverage through the establishment of about 90 societies in 365 Thanas.

U.S. ASSISTANCE: AID made a \$50,000,000 grant available to BDG in 1978 for the development of the first 13 rural electrical societies. Subsequently, an additional \$19,300,000 was granted because initial consumer applications for membership were more than double the original estimate. BDG matched U.S. funds with \$28 million in local currency equivalent making a total project of \$97.3 million.

PURPOSE OF EVALUATION: This evaluation was to assess the program's progress after four years of operation, to identify problems and to recommend plans for remedial action to ensure that the program achieves its objectives. The project has been evaluated on three earlier occasions.

FINDINGS.

1. During its four years, REB has been formed and its basic staffing completed; 14 rural electric societies have been organized, registered and have completed membership solicitation. Many other major activities have been accomplished: Institutional and Technical Training Institutes established; engineering, construction and manufacturing standards created; a central warehouse and material management system set up and \$36.3 million worth of commodities ordered; 10 consulting engineering and 39 line construction firms prequalified and technical staff trained; design and construction contracts for 13 headquarter complexes and 3,440 miles of line distribution awarded; eight local systems (PBSs) and 1,050 miles of line energized; Utility Uniform System of Accounts implemented; development of an indigenous treated wood products and housewiring industries sponsored; PBS officials and employees trained; and a Program Planning Directorate established.
2. BDG has been slow to sanction all required positions which has resulted in a greater degree of dependence upon foreign consultants and a greater superintendent rather than advisory role for them. Progress toward assumption of total responsibility by REB and PBS personnel, as well as by local consultants and contractors, has been slowed. It will require more expatriate advisors for a longer period of time than had been originally planned.
3. There is a need for existing staff vacancies to be filled and for more training programs to be developed as not all training needs have been completely met and as more PBSs become operational. Overall, the number of training sessions and trainees increased over 1981. One program in need of implementation at present is the PBS Job Training and Safety Program. Three sub-assistant engineer positions need to be filled in order to implement this program. A single, central training facility is needed. The critical position of Deputy Director of Technical Training is unfilled. Staff expertise in the preparation of training materials is necessary.

4. The development of line consultants and contractors has not been up to expectations; greater emphasis needs to be placed on the control and supervision of their activities. This need was identified in the third annual evaluation. Consultants still do not have enough adequately trained and equipped field personnel to handle the entire work load. Quality improvement is urgently needed in all phases of construction engineering. There is also a growing need for specialists in the testing and maintenance of electrical equipment.

5. There are no guidelines for the design of low tension distribution systems for which the demand is greatest due to high consumer density characteristic of rural areas. At present there are some guidelines for conversion of existing PDB lines to be served from PBS systems but this leaves too much responsibility for engineering judgment to inexperienced field staff.

6. The construction program is close to being on schedule despite delayed tendering in 1982. The construction directorate was able to adjust by shipping material between PBSs; however, some critical shortages, manpower, quality control and procedural problems are noted.

7. The recommendations of the 1980 Evaluation Report on the Finance Department have received close attention and there has been significant progress; internal control and internal audit functions and activities have definitely improved. Further attention to additional training in the various functions and compliance monitoring of established standards is needed.

8. The Directorate of PBS Management Operations was changed in the last months of the period being evaluated and current staff lacks training. The present director participated in an orientation program in the U.S. He has delegated authority and accepted responsibility and accountability. PBS officers and staff, however, strongly feel they are supervised rather than trained and assisted by REB staff.

PROJECT DESIGN & POLICY IMPLICATIONS. The project was conceived as a way to implement a policy of energizing rural communities and this is still valid. The critical factors are many in a project as complex as this. Overall, it is not weakness in the project's design that is critical so much as questions of policy and direction of the governmental regulatory agency and the PBS systems operation and maintenance capabilities which are crucial. Staff selection and training are chief among policy considerations. Careful but slow personnel selection has delayed the achievement of full staffing and has created a possibility of continuing reliance on foreign expertise. Adequate pay and benefits are mandatory policy issues in order to ensure that personnel, once trained, are not lured away, particularly to the Middle East as has already begun to occur. In the planning context, the development of a master training plan for REB, for each PBS employee and director, and for each line consultant and contractor is fundamental to the question of the design, operation and maintenance of the local utilities. Such plans are not feasible unless an explicit policy is set and adopted by the REB. If not, plans may be developed only to be disregarded at the time of implementation. There is much evidence that REB policy, at this time, is neither properly understood nor effectively implemented in the field. There is evidence that policies adopted by REB which were intended to expedite implementation as well as to control results in a responsible manner are not working as envisioned. These elements have been mentioned in previous evaluations and need to be taken seriously as Phase II and III activities are planned. Productivity is important but care must be taken that goals are realistic. REB is under pressure to perform beyond its present capability. There must be a recognition on the part of all concerned that rural electrification is a long range program and that a solid foundation of quality must be developed to enable the program to achieve its full potential.



## RECOMMENDATIONS.

1. Present and future manpower needs must be re-examined for all sectors of the program. Goals for staffing and training must be met to keep pace with program expansion. Current vacancies should be immediately filled.
2. More emphasis must be placed on training in management and supervisory skills. The Job Training and Safety Program should be implemented now. All training should be located at a single, adequately sized, facility. REB field engineers and inspectors must take a more active role in supervision and monitoring of local consultants.
3. An intensified effort must be made to identify outstanding people within the project and to channel and train them so their talents may be developed to provide the leadership that is needed. Incentives must be developed and put into use to attract and keep talent.
4. Construction targets and other goals that can be realistically accomplished must be established, bearing in mind that quantity will increase as knowledge and skills improve.
5. REB Policy Bulletins and Instructions must be distributed and communicated to all concerned. Persons responsible for carrying out REB Policy must be directed to follow up all instructions to see that they are implemented. Lines of authority must be clearly defined, relationships understood and chain of command strictly enforced.
6. An annual system analysis should be required from each PBS. Load projections should be made for the coming two years and an evaluation made of the system's ability to carry projected loads.
7. The Deputy Director of Material Planning, Design and Implementation should concentrate on developing bid packages for procurement of materials and equipment for Phase II as far in advance as possible.

This evaluation was conducted by James E. Heifner, Team Leader, NRECA/CAI Advisory Team.

## TERMINAL EVALUATION REPORT OF THE BANGLADESH BANK'S RURAL FINANCE EXPERIMENTAL PROJECT - BANGLADESH

**PROBLEM & OVERVIEW.** Bangladesh is in an extreme condition of under-development and rural poverty with more than 90% of the population living in rural areas at more than 2000 persons per square mile, per capita availability of arable land at only .38 of an acre, scarce natural resources, high incidences of illiteracy and disease and a population growth rate of 2.8% per annum. More than 80% of the population is considered landless. In general, the agricultural potential of the country is considered its greatest undeveloped resource. Given modern techniques, training, a sound extension system, and access to institutional credit, it is believed that the majority of smaller farmers, share croppers, landless day laborers, petty traders or cottage industry artisans could exploit productive opportunities, increase their income, feed themselves and make a substantial contribution to improved quality of life. Traditionally, the only credit available to the rural poor has been from relatives, friends, landowners and village money lenders, often at usurious terms. The Government of Bangladesh's (BDG) development strategy includes the identification or development of one or more rural financial systems for meeting the needs of poor rural producers not now reached by normal sources of institutional credit.

**U.S. ASSISTANCE.** In August, 1977, BDG and USAID signed a four year, \$7 million Rural Finance Experiment Project (RFEP) agreement (No. 388-0056) designed to test and identify one or more replicable rural finance systems able to meet the needs of Bangladesh's productive and potentially productive rural poor. The sector goal, to be achieved through a follow-on project if this one were successful, was to contribute to the establishment of an effective, nationwide institutional credit and savings system for small farmer and other rural producers in Bangladesh. The project was based on two hypotheses: (1) that the rural target group needed and would use institutional credit in order to take advantage of and exploit investment opportunities available to them; and (2) that institutional credit was not now generally available to the target group. Such non-institutional credit as was available was considered to be generally inadequate, excessively usurious or tied to unfair marketing or land mortgaging arrangements. Nine rural finance institutions (7 banks and 2 cooperatives) were involved in implementing and testing eight different credit delivery and saving systems in this project. Overall management has been the responsibility of the Agricultural Credit Department (ACD) of the Bangladesh Central Bank. Indicators of project success were to include (1) ability to extend credit as needed to the project target group (defined as a family head owning two acres or less of cropland with an annual gross cash income of \$400 or less); (2) fully or substantially recover the resources loaned; (3) cover all operational cost through interest and/or other financial charges levied equitably; and (4) finance expanded operations through mobilization of rural savings.

**PURPOSE OF EVALUATION.** The purpose of this evaluation was to research and demonstrate the extent to which the project's indicators of success support the development of a viable follow-on project that could ultimately contribute to the attainment of the goal. The evaluation is based on documentary analysis, field observation, sample surveys, case studies, and interviews. The project has had six previous major evaluations.

### **FINDINGS.**

1. **Credit reaches a substantial portion of the target group and is not directed to larger rural producers.** Loans numbering 72,188 have been made to 42,219 borrowers. Eighty-five percent of all loans have gone to the target group. The average loan is Taka 1,645. Eighty-five percent of the total loaned has been recovered. The six most common loans were for purchase of oxen or buffalo for plowing, beef fattening, rice husking, local wet culture rice planting, dry culture high yielding rice planting, and raising milk cows/buffaloes.

2. Target group production and income are increased and the level of under-employment is reduced. Over 100 discrete economic activities have been identified. While usually using a loan for the purpose stated in the application, many use part of the funds for other purposes, including domestic consumption. The "Anthropological Survey of Borrowers" indicated that 16% of borrowers had commenced an entirely new activity by taking a loan while 41% had used the loan to enhance an existing activity and 43% used loans to maintain existing activity at existing levels of production. The increasing number of second and subsequent loans suggests that borrowers accepted and have benefited from the project's credit systems.

3. Loans have been substantially recovered with interest. Initial loan recovery was poor but has improved since 1980, a situation partially attributed to initial inexperience among loan officers at lending institutions. In the RFEP project, the average of overdues is 15.4%; on a national scale, averages are around 50%. Overdues are often a result of poor outlet management. The evidence is that unless natural calamity intervenes, borrowers will repay loans if they feel that a further loan will be forthcoming quickly when needed. Higher interest rates (24%, 30% and 36%) are acceptable to rural producers.

4. Lending institutions cover their operational costs through interest and finance charges and are motivated and capable of expanding operations. The performance of the nine institutions in covering costs has improved. Of 98 outlets opened since project inception, 10 have been closed. Of the remaining 88, 44 are profitable, 6 marginal and 35 non-viable. [Note: 3 others are too new to be evaluated.] The Krishi Bank accounts for 37% of total lending in the project and has no non-viable outlets among 15 outlets. The average interest rate needed to cover all expenses is 19.5%. The average spread for safe lending operations is 11%. Marginal and non-viable outlets have spreads lower than 10%. The lending rates range from 41% to 13.3%; spreads from 28.5% to 6.6%. When the reserve for bad debt is ignored, the average spread drops to 2.6%.

5. Rural savings are mobilized although to date the project does not constitute a valid test of any savings model. Savings mobilization has not been accorded the same priority as lending and the data available should not be regarded as an accurate measure of the potential for savings mobilization among the rural population. Currently, 15% of all outstanding loans are covered by deposits. Overall, non-target group savings amount to over one-half of all deposits.

6. Loans to women accounted for only 4.2% of all loans. Existing social conditions in rural Bangladesh do not permit women to act independently. Loans are often made in the name of a male member on behalf of the female who is to carry out the activity. Outlet staff generally regard women as better credit risks whose collective repayment record is better than men. Only one institution employed women loan officers.

7. Management surveys conducted throughout the project period indicate numerous operational constraints are impeding implementation. Among constraints are low loan officer productivity; frequent transfer of trained field officers, problematical logistical support, inadequate supervision and authority delegation, conflicting project and non-project responsibilities, and low salary level. Time and experience have overcome some of these problems.

8. RFEP has had a significant effect on informal credit. In several project areas, money lenders who previously charged 120% annual interest have reduced their rates to 60% or 40%. All 15 moneylenders interviewed in the evaluation said they regard the project as a threat to their profession.

PROJECT DESIGN & POLICY IMPLICATIONS. It appears that no real in-depth study was made of the private credit market prior to initiating this project. The project would have been more meaningful if it were known what this project's institutional credit design had to compete with from the private money lenders or what opportunities could have been tapped in the private credit market to serve the target group's needs as or more effectively than the those proposed in the project. However, indications are that the experimental approach taken by this project adequately meets the needs for institutional credit of the rural poor. Overall, 50 (60%) of all operational outlets are currently profitable or nearly profitable, a fact which represents a very solid base for future operations and expansion under any follow-on project. The project's impact on informal credit is also favorable to the needs of the rural poor. The one major weakness that merits policy review concerns attracting increased savings deposits from the target group as well as non-target depositors and good loan recovery performance appears to be a critical variable in this area. The crucial factor in terms of the future is to preserve the initiative that this project has taken to engender confidence and trust between the rural poor and the institutional sources of credit. Any hiatus between this project and a follow-on program may undermine both borrowers and institutional confidence, leading to poor recovery of existing loans and dissolution of an important mutual trust between the establishment of institutional lenders and the rural poor borrowers. Once broken this mutual trust is very difficult to re-establish.

#### RECOMMENDATIONS.

1. Incentives such as increased rates of interest must be provided if banks are to more effectively mobilize savings. The banks continue to regard saving mobilization among the poor as a high cost source of funds. This attitude must be changed.
2. Special attention must be paid to mobilizing the savings of the non-target group saver by taking deposits at a higher rate of interest.
3. Institutions continuing in the Rural Finance (Follow-on) Project should be expected to positively allocate the necessary resources and manpower at the outset for this work.
4. Special attention must be given to assisting the evaluation officers in carrying out their tasks including special training courses, detailed guidelines and assistance with field work.
5. Evaluation planning and preparation should be a joint exercise between project personnel and the institutions' evaluation officers.
6. Mechanisms need to be established whereby the results of evaluations can be both disseminated and policy and operational changes made in light of evaluation findings can be quickly implemented.

This evaluation was prepared by staff and representatives of the S.F. Ahmed Co. of Dacca, Bangladesh headed by Mr. S.F. Ahmed, Team Leader and Wilmot Averill, representative of the Public Administration Service of McLean, Virginia.

EVALUATION SUMMARY OF TECHNICAL ASSISTANCE TO THE NATIONAL COOPERATIVE DEVELOPMENT CORPORATION  
OILSEED PROCESSING MANAGEMENT DEVELOPMENT PROJECT - INDIA

PROBLEM & OVERVIEW. Oilseeds and vegetable oil are of critical importance to India, both as a source of protein for the human and animal populations and as a central part of the diet of the majority of India's citizens. While other elements of India's agricultural production have accelerated dramatically, oilseeds and oil production have lagged behind. In 1979, India found it necessary to import vegetable oils valued at U.S. \$475 million, a cost exceeded only by imports of petroleum products and fertilizer. The current trend of oilseed production is erratic and does not show evidence of a sustained upward trend, implying that imports must continue to rise if present per capita availability of oil is to be maintained. The oilseed producer has not benefited from the increasing importance and value of his commodity. The oilseed market is dominated by traders who profit substantially through purchasing at low harvest prices and releasing oilseeds only as prices rise rapidly in the months that follow. The consumer fails to benefit from the low prices at which the majority of the oilseeds are procured; it has only been through government imports and market interventions that the consumer has been protected from volatile upward swings in the price of oil, a protection purchased at an increasing cost to India's foreign exchange reserves.

U.S. ASSISTANCE. India's National Cooperative Development Corporation (NCDC) was established in 1963 to plan and implement country-wide programs through cooperative societies for the production, storage, processing, marketing, and sale of agricultural commodities. Since 1965, the Cooperative League of the U.S.A. (CLUSA) has been providing technical assistance to Indian cooperative oilseed processors. The present 3-year grant (Project No. 498-0251; OPG No. AID-38602127) was proposed in 1973, but not approved until 1978. The project's purpose is to assist NCDC in improving cooperative oilseed processing units by introducing modern management systems and techniques, and training cooperative personnel in their use. USAID granted \$475,000 to the project. The Government of India's (GOI) contribution is \$282,000 in local currency. The grant provides two long-term expatriate advisors and two expatriate short-term consultants.

PURPOSE OF EVALUATION. This end of project evaluation attempted to assess results in relation to project objectives and to identify both successes and failures as well as their respective reasons; assess the appropriateness and effectiveness of the project strategy; and offer recommendations and suggestions. Interviews, review of source materials, and field visits to model project plants as well as non-model plants took place.

FINDINGS.

1. In terms of the project indicators of improved operating performance, increased capacity utilization, and improved financial performance, the performance of all five model plants has been substantial. There were dramatic increases in capacity utilization. The project did not succeed in extending the model plant results to other cooperative units.

2. In each model plant, a number of operating modifications and innovations were introduced which, in most cases, resulted in increased capacity and reduced operating costs. The potential for increased revenues through production enhancement and cost reduction if adoption of all innovations by all plants were to occur is enormous. Current oil production capacity would double.

3. In terms of specific project outputs detailed in the Project Paper, the project fell short in training professionals who would be capable of providing training and consulting services to others, and in training General Managers in application of all systems. Two of six professionals were fully trained; six of 32 plant personnel (General Managers) had undergone training and 12 more were anticipated for a scheduled program.

4. Unanticipated obstacles delayed the registration and formation of the National Association of Cooperative Oilseed Processors (NACOP) which was to have become the vehicle for the training development and technical support to processing units. This had a negative impact on completion of project outputs. It has been developed conceptually, by-laws have been written and financing has been allocated, but the Registrar of Cooperatives has refused to register it.

5. The project's implementation efforts were limited to intensive focus on three categories of systems and procedures: production planning and control; raw materials grading and storage; and processing efficiency and reliability. The greatest investment of time and return has been in the last activity. The Project Paper had proposed ten categories of systems and procedures to be developed and tested.

PROJECT DESIGN & POLICY IMPLICATIONS. It is the judgement of the Evaluation Team that the project design substantially underestimated the time and complexity involved in moving from problem identification to solution to testing/confirmation to establishing effective methods of diffusion of the innovations it hoped to develop. In implementation, this critical diffusion process became an "add on." The reasons for this relate to having to identify operational problems, devise potential solutions and work with "model" plant staff to test, modify and confirm these solutions, a complicated and lengthy process multiplied by the fact that personnel were working with at least four distinct oilseeds each with its own unique characteristics, processing parameters, equipment and financial implications. During implementation, CLUSA and NCDC personnel concluded that the major problems and potential impacts were integral to the systems and processes relating to raw material procurement, storage and processing. Improvements in these areas were needed, were possible and would constitute a major step toward operating the plants on a profitable basis. Thus while many anticipated project outcomes have not been achieved, the potential has been created for such achievement, and more. As the goal relates to the cooperative oilseed processing sector, and not to a limited number of model plants, the team believes that measurement of achievement of the project goal is an appropriate exercise. This might take the form of a "final" evaluation which would occur three to five years after project completion as opposed to a standard "end-of-project" evaluation. The cooperative oilseed processing sector has the potential to play a critical role in increased vegetable oil production, increased farmer income, and stabilization of consumer prices for vegetable oil. The goal of the project remains central to the investment that has taken place to date. Its importance is further enhanced by the potential that has been demonstrated in the model plant.

#### RECOMMENDATIONS.

1. A systematic approach to the dissemination of the innovations developed by the project should be designed and implemented.
2. The rapid registration and formation of NACOP should be accomplished.
3. It is recommended that NCDC secure working capital at levels that permit processing operations at full capacity of individual units.

4. It is recommended that NCDC assess the technical and financial feasibility of bulk storage and, if findings warrant, work with concerned agencies and cooperatives to finance such storage on a pilot basis.
5. USAID should continue to provide limited financial support to the agencies and cooperative organizations involved.
6. It is recommended that a final evaluation be conducted in 1984 or 1985 in order to more fully and accurately assess this project's impact.
7. It is recommended that present efforts be accelerated to increase the equity of participation of members in ownership of the cooperative oilseed processing plants and promote ways and means to link producers directly with the processing cooperatives.

This evaluation was performed by Thomas R. Carter, Consultant with CLUSA who acted as Team Leader; D.K. Agarwal, Consultant, NCDC; R.N. Trikha, Oilseeds Project Coordinator, USAID/India; Frank Young, Program Office, USAID/India; and C.R. Rathbone, CLUSA Advisory Committee.

## EVALUATION SUMMARY OF THE AGRICULTURAL DEVELOPMENT CREDIT PROJECT - INDIA

**PROBLEM & OVERVIEW.** The Government of India (GOI), as part of a broad strategy of rural development, has developed programs designed to increase agricultural production. One aspect of this strategy has been to increase investment in minor irrigation and land development schemes (MILD) by using specifically created lending and credit institutions as well as commercial banks to make low interest loans and credit facilities available to small farmers. This mechanism is intended to bring additional area under cultivation and to raise production by encouraging the adoption of high yielding variety crops and intensive cultivation practices. This strategy is based on studies which show that such investments do assist in raising agricultural production, increasing employment and increasing the incremental income of farmers. Other components involved in this sectoral development strategy include medium scale and large scale irrigation development programs.

**U.S. ASSISTANCE.** In implementing a program of investment through low interest loans for minor irrigation and land development schemes, GOI requested financial assistance for a \$1.25 billion project to finance minor irrigation and other diversified activities under the Agricultural Refinance Development Corporation (ARDC). The World Bank (IDA), USAID, and other donors including the U.K., Canada, West Germany, Switzerland and the Netherlands agreed to participate. USAID authorized a \$100 million Loan Assistance package. A Project Loan Agreement (No. 386-0466) of \$20 million was signed on June 30, 1980 between GOI and USAID. A First Amendment to this Loan Agreement for an additional \$35.6 million was signed on December 15, 1980. The agreement stipulates that proceeds would be on-lent through the GOI to ARDC for support of its two year (July 1980 - June 1982) program to refinance lending by eligible credit institutions (Land Development Banks, commercial banks, Regional Rural Banks and primary cooperative societies) specifically for the minor irrigation and land development component (MILD). The AID loan requires that at least 50% of its proceeds shall be used by ARDC to refinance loans to small farmers (defined as those whose pre-development income does not exceed Rs. 2000 annually at 1972 prices.)

**PURPOSE OF EVALUATION.** The Project Paper stipulates that AID is relying on ARDC's evaluation program to obtain information and to measure the impact of ARDC's activities. ARDC was to have produced 50 investment studies prior to December 1982 which would be used in the evaluation process. The purpose of this evaluation was to review and assess the procedures and controls involved for refinancing MILD schemes, to identify policy issues and constraints and to assess their impact on program viability and beneficiaries, to determine to what extent the project meets AID's stipulations related to beneficiaries and to develop facts to be used in determining and justifying a decision regarding further assistance. USAID officials visited two states, reviewed District Oriented Monitoring reports, ARDC and commercial bank evaluation studies and interviewed beneficiaries.

### **FINDINGS.**

1. A substantial portion of MILD resources are reaching intended beneficiaries. During the period from July 1980 to June 1981, ARDC disbursed \$307 million for MILD schemes of which 63.8% (\$196 million) was disbursed to 235,000 small farmers. Studies by commercial banks making loans indicate that crop yield has improved as a result of investments in minor irrigation.
2. The interest rate charged to farmers on MILD loans was increased July 1980 from 9.5% to 10.25%. However, ARDC's refinancing rate to eligible participating institutions remained unchanged at 6.5%. The increased margin was necessary to meet increased operating expenses which were a direct result of increased volume of loan activity under this program.



3. The greatest problem facing ARDC is the high rate of overdue loans in the participating Land Development Banks (LDBs) and Commercial Banks. Nationwide, the overdues in LDBs average 50%. The average in Commercial Banks is slightly higher. There are major differences, however, between the various states in recovery performance.

4. ARDC has implemented a more effective system of loan monitoring. This new system, District Oriented Monitoring (DOM), facilitates more intensive supervision of schemes for development programs and credit planning. AID's review of DOM reports showed that exhaustive analysis had been undertaken and the same types of findings that AID personnel observed were identified in these reports.

5. ARDC has not moved expeditiously to complete evaluation studies on the impact of ARDC's activities. Based on ARDC's plans to produce 50 studies prior to December 1982, it was decided that AID would not conduct independent evaluation studies. As of April, 1982, ARDC had completed only two which are relevant to MILD schemes. Commercial Banks covered by ARDC financing had produced six reports relevant to MILD schemes. In these reports, ARDC has not yet focused on physical targets and has not addressed the question of employment generation, one of the principal goals of AID assistance.

PROJECT DESIGN & POLICY IMPLICATIONS. The key issues bearing on the utility of this project include the high incidence of overdue loans and the actions taken by ARDC and the lending institutions to correct this situation, the slow progress of ARDC in completing evaluation (impact) studies, and immediate need for implementation of a nationwide, intensive supervision and monitoring system for development programs and credit planning. It must be noted that ARDC's Managing Director has taken positive steps to improve the monitoring and supervision system. Similarly, a proposal to "block" the chronic and delinquent overdues and pay the Land Development Banks with state government funds is under GOI consideration.

RECOMMENDATIONS. AID should maintain the current level of obligation at \$55.6 million and not obligate the \$44.4 million balance of the \$100 million Loan Assistance authorized.

This evaluation was written by Mr. K.C. Kapoor, Project Development Officer and Frank J. Young, Acting Chief, Program Office, USAID/India.

## PROGRESS REVIEW OF THE TECHNOLOGIES FOR THE RURAL POOR PROJECT - INDIA

PROBLEM & OVERVIEW. Faced with a growing import bill for petroleum and related byproducts and cognizant of the limitations of its own non-renewable energy resource base Government of India (GOI) established a policy to support the application of science and technology for rural development with a primary focus on non-conventional energy projects.

U.S. ASSISTANCE. A project agreement (No. 386-0465) between GOI and USAID was signed on August 26, 1978. The original agreement obligated \$2.7 million over a 3 year period primarily to finance dollar costs of sub-projects which support design, development, installation and testing of applications of solar, biomass and micro and low head hydro electric energy systems for use in Indian villages. These and other proposed uses (agriculture, health, scientific exchanges) of project funds were to follow general guidelines and specific technical, economic and social criteria stipulated in the project agreement.

PURPOSE OF EVALUATION. This is a progress review to assess the status of sub-project proposal development and achievement and to determine the need for extension of the September 30, 1981 Project Assistance Completion Date (PACD). The project was previously evaluated on April 9, 1981. This review took place in May, 1982.

### FINDINGS.

1. Seven sub-projects totalling \$1.94 million have been developed and approved as of December, 1981. Protracted delays occurred in the submission of proposed sub-projects. The major problems responsible for these delays were insufficient guidance and criteria for approval of sub-projects, inadequate staff attention by GOI and AID, and delays in GOI approval process.

2. With one exception, the sub-projects are proceeding on schedule.

3. The seven sub-projects are:

- .1 Identification and development of collaborative scientific sub-projects to be supported under the project. [The field of inquiry was primarily but not limited to that of energy from biomass.]
- .2 "Development and Application of Decentralized Energy Systems Utilizing Non-Conventional Energy Sources."
- .3 "Optimization of Solar Drying Systems for Agricultural Produce."
- .4 "Medium Temperature, High Efficiency Tracking and Non-Tracking Solar Energy Collectors for Rural and Industrial Application."
- .5 Development of Micro and Low Head Hybrid Hydro Electric Systems for Rural Poor.
- .6 Comprehensive Studies on Prevention of Nutritional Blindness.
- .7 Field Evaluation of Serological Tests of Malaria.

PROJECT DESIGN & POLICY IMPLICATIONS. The major problems with this project appear to have been the lack of criteria for approval of sub-projects and lack of guidance from USAID mission technical staff. This probably reflects AID's unfamiliarity with the field of non-conventional energy at that time and the fact that few programs or projects had been conducted and/or evaluated in this area at the time of the project's inception. This lack of familiarity appears to have been overcome in 1979 and 1980 with improved dialogue on the direction of the project between the Department of Science and Technology and USAID Mission staff. Overall, the project appears to lack a larger purpose. None of the sub-projects contain, as part of the statement of purpose or objectives, a detailed plan for dissemination of appropriate technology and mass production and/or marketing of successful devices.

RECOMMENDATIONS.

1. The PACD is to be extended to December 31, 1984 as the average life of the sub-projects is three years.

This evaluation was performed by R. Berry, Project Officer and John R. Westley, Chief, Program Office, USAID/India.

## REGULAR EVALUATION OF THE RURAL ELECTRIFICATION PROJECT - INDIA

PROBLEM & OVERVIEW. Much of rural India is without electrical power essential for productive and social service-type activities. The Government of India (GOI), as part of a broader strategy of rural development, has sought foreign assistance for achieving rural electrification. Funds for this purpose are normally administered through the Rural Electrification Corporation (REC) and implemented by various State Electricity Boards (SECs) in Specifically Underdeveloped (SU) and Minimum Needs Programs (MNPs). Rural electrification (RE) is intended to provide electrical energy for powering pumpsets for groundwater exploitation, small scale industries, lighting homes, rural roads and commercial establishments in "backward" areas of the country. Increased rural income and generation of local employment opportunities are expected outputs.

U.S. ASSISTANCE. A Project Loan Agreement (No. 386-T-225) entitled "Rural Electrification" (Project NO. 386-0462) for \$58 million was signed on June 30, 1979 between the GOI and AID. This AID loan was to finance foreign exchange and local purchase of electrical hardware for both SU and MNPs approved by the REC during GOI FY 1981 and 1982. SU and MNP schemes are formulated by the SEBs in accordance with REC's guidelines and norms concerning technical, financial and economic feasibility. All SEB proposals are appraised by REC before being approved for financing. AID's preferred target beneficiary group, the rural economically disadvantaged, would benefit through improved opportunities for increased rural income and employment made possible by rural electrification. The Project Paper (PP) indicated an output target of 154 schemes, a figure derived from calculating the cost of one scheme (\$755,000) and dividing by the \$116 million total amount of available financing (AID, \$58 million; GOI, \$58 million.)

PURPOSE OF EVALUATION. AID relies on REC for evaluation work on this rural electrification project. REC's evaluation consists of current and long term aspects. Current evaluation is synonymous with REC's monitoring functions and is carried out by its Appraisal and Monitoring Division. These evaluations review each project and its physical progress towards achieving connection targets. The long term evaluation focuses on getting impact evaluation studies done through private consultancy organizations or academic institutes. For purposes of this Project Evaluation Summary (PES), our evaluation is based on impressions gained by USAID monitoring teams during their visits to various SEBs and through discussions held with SEBs and REC officials.

### FINDINGS.

1. AID has approved \$30.8 million worth of contract awards as of April, 1982. Planned disbursements through FY 1981 were slower than projected due to delays in the award of contracts for materials and equipment. SEBs have been slow in opening Letters of Credit and in accepting supplies against orders. However, since October, 1981, disbursements have improved to \$4.8 million per quarter after a meeting involving officers of the various SEBs and REC held to resolve issues.
2. Major delays in procurement occurred at the outset due to AID policy requirements on source-origin materials. Resolution of this issue caused a three to four month delay in the issuing of the first IFB. This situation was compounded by the submission of several unresponsive bids which necessitated a second round of bidding and caused another delay in the issuing of this round's IFB.
3. The AID loan agreement is jeopardized by violations of the terms of agreement. In some cases, separate records were not kept for AID-financed materials. In others, AID-financed materials were diverted for SU and MNP schemes other than those eligible under REC-approval.
4. The target number of 154 schemes will not be completed by the Project Activities Completion Date (PACD). Because of initial delays, quantities procured in the first two rounds of bidding were less than planned. Not all equipment had been installed by March 31, 1982.

5. Potential connectors (users) are not seeking connections as rapidly as had been expected. During the course of its review, the AID Asia Project Advisory Committee (APAC) expressed the need for further information regarding the project's social and economic equity, interest rate structure, impact of interest rates on rates of return on investment in rural electrification and justification of the extent and cost of electrification subsidies to small farmers. USAID/I noted that a centrally funded grantee would research these considerations by assigning separate studies to two indigenous contractors.

PROJECT DESIGN AND POLICY IMPLICATIONS. The critical issue that caused the delay in implementation concerned the substance of the IFB. More time should have been scheduled for acquisition of materials under AID procurement guidelines. More effort should have been spent in acquainting REC and other GOI officials with AID IFP procedures. Given the historical nature of implementation delays attributable to numerous procedural and operational problems of SEBs and REC as a whole, the REC appears not to have made any evaluation effort itself. The disappointing rate at which potential users are seeking connections may be linked to questions concerning social and economic equity voiced by the Asia Project Advisory Committee (APAC) when approving the Project Paper. The socio-economic impact studies, when finalized, may be useful in providing insights as to who among the intended beneficiaries are now being served and under what conditions. However, since these studies focus on relatively more advanced areas not covered by AID financial assistance, they should be examined with care and AID future monitoring should address the project area in particular.

#### RECOMMENDATIONS.

1. The PACD may be extended to accommodate a third and final round of procurement.
2. The socio-economic impact of the rural electrification program should be carried out by the parties identified and should focus on some of the areas covered by AID financial assistance.
3. Construction and procurement management and systems for storage, recording and accounting in all states eligible under the AID loan should be reviewed.
4. The progress and quality of construction on selected schemes should be reviewed.

This evaluation was performed by Mr. Y.P. Kumar, General Engineer and Project Officer, and Mr. John R. Westley, Chief, Program Office, USAID/India.

## AN EVALUATION OF THE PROVINCIAL AREA DEVELOPMENT PROGRAM I & II - INDONESIA

**PROBLEM & OVERVIEW.** Following a decade of rapid sustained economic growth during Indonesia's second Five Year Plan period and despite the remarkable record of economic performance, much public and academic discussion arose concerning the distributional effects of the development effort. The widespread concern was reflected in the Government of Indonesia's (GOI) third Five Year Plan (1979-80 through 1983-84) which makes the achievement of equity in the development effort an explicit priority. The GOI conception of the Provincial Development Program (PDP) was articulated as a program "directed toward development efforts which directly raise the income and welfare of the people of the villages, whose productivity is low..." Also recognized was the need to increase and perfect administrative capacity and capability at all regional, provincial and district and local levels, and the need to supply more local level development assistance in the form of projects and access to institutional credit.

**U.S. ASSISTANCE.** The PDP seeks to realize the GOI's goals by building both local government institutional capacity for development and by directly increasing income of poorer rural populations. AID's involvement includes two different sets of bilateral grants and loans. The first was based on a three-year Grant Agreement (No. 497-0264) signed in September 1977 for \$2.8 million. This was followed in April, 1978 by a Loan Agreement (497-T-047) for \$6 million. Other donors contributed \$4.3 million and GOI, \$13.1 million. This first phase was for support to activities in two initial provinces. The scheduled Project Assistance Completion Date (PACD) for PDP-I was April, 1983. In May 1979, a second Loan Agreement (No. 497-T-058) was signed for \$18 million and in June 1979, a second Grant Agreement (No.497-0276) for \$6 million. Other donors contributed \$15.33 million and the GOI, \$39.33 million. The PACD for PDP-II is May, 1985. This second phase was for support to activities in six additional provinces. The critical objectives of the Program and of USAID assistance include (1) to increase the production capacity and income of the rural poor as directly and immediately as possible; (2) to improve the capabilities of local government to undertake rural development activities; and (3) to improve the capabilities of key central government agencies to support local government in this process. The project represents the Ministry of Home Affairs' first effort at cooperation in local development activities with the foreign donor community.

**PURPOSE OF EVALUATION.** This evaluation assesses the PDP's current status in order to help guide upcoming decisions about its future. A five week field evaluation was conducted to examine GOI and AID support for the PDP, its institutional development, the impact on the rural poor, and implications of these findings for the project's future. Despite the project's relative infancy, (implementation experience ranges from only one to three years in the eight provinces involved) there have been a large assortment of baseline studies, reviews, assessments and evaluations performed on both PDP-I and II activities.

### **FINDINGS.**

1. GOI has demonstrated a commitment to the program and its purpose. However, the operational specification of the stated objectives has not been well developed. This lack of definition also fails to provide a clear rationale for project-mix in programs. The ambivalence created by non-specific multiple objectives has led to anomalies in decision making.

2. GOI has established mechanisms, organization patterns and streamlined procedures conducive to decentralizing planning and implementation processes. However, decentralization occurs through the use of specially selected and funded PDP personnel not yet fully integrated into existing governmental structures. The strengthening of existing institutional structures and the creation of new ones is still dependent on USAID inputs. There is no reassurance that funding will be absorbed by the GOI budget processes after the life of the project.

3. Monitoring and evaluation functions are key weaknesses in the program at present. The primary function fulfilled by the current system and procedures are related to auditing and financial control. Relatively little is required in the way of overall planning statements, provincial strategies or other indications of the context in which a project is to be assessed in terms of broader PDP goals.

4. There is considerable variation in sub-project strategies and sectoral emphasis by province and in character and cost per beneficiary of sub-projects undertaken. Project strategies and sub-project selection tend to dichotomize between relatively low cost/high numbers of beneficiaries and relatively high cost/low numbers of beneficiaries. Official criteria by which beneficiaries of PDP projects are selected was found to vary significantly in the four provinces visited. No analysis of sub-project inputs or the productivity and cost-effectiveness of these varying approaches has been made or is likely to be until capabilities, concern and procedures for evaluation are established. Ideas for sub-projects still originate mainly from the sectoral agencies.

5. There is only fragmentary evidence to document that sub-projects have improved the productivity of beneficiaries and that improvements in production have positively affected income. Virtually no women have been involved in the implementation of PDP in the four provinces visited.

6. Sustainability of higher levels of productivity and income varies according to the type of project, a factor which has not been well incorporated into planning thus far. Generally, however, the more carefully studied, meticulously planned and rigorously monitored sub-projects requiring the least behavioral alteration by participants perform best in terms of economic impact potential and sustainability.

7. USAID's participation in all aspects has helped build a base for the accomplishment of project goals, and the provision of technical assistance has been satisfactory. Initial design work and follow-up assistance has strengthened acceptance of the program within GOI. Basic skills training for lower level employees has had a significant impact. Sub-project financing is viewed as appropriate to the innovative and experimental character of the program.

PROJECT DESIGN & POLICY IMPLICATIONS. PDP has shown promise that justifies the experiment's continuation. There is evidence that a favorable difference in the quality of planning between PDP and non-PDP subdistricts has also spread to sectoral projects outside the PDP area. The influence of PDP on planning is much greater than on implementation. The policy emphasis on the importance of "bottom-up" planning has started to influence the minds of the Indonesian planners. There are some important constraints at the policy making level that merit comment. For one, a top-heavy structure of committees exists at the central government level. For another, members of the Foreign Aid Technical Committee play a largely pro forma role in the process of program review. A third is the position of GOI with reference to loan financing of technical assistance. A fourth is that of the pattern of finance of local government expenditures. At present, provincial and district financial capacity is extremely low, making local levels of government heavily dependent on the Center. Decentralization of planning and targeting of explicit needs and desires of the local populace is inhibited by this fiscal dependency. Finally, it should be obvious that the kind of institutional innovations supported by the PDP cannot be fully tried or tested in the original four-year time span. Nor can optimum learning take place in so short a period. Overall, the project's design is sound and its concept is well understood. AID policy objectives, and those of the GOI, are being met through this effort albeit there is room for improvement.

## RECOMMENDATIONS.

1. An immediate four-year extension of existing project agreements is recommended. USAID technical assistance should be maintained at present levels for the first two years and reduced in the last two as local capacity increases.
2. The general objectives of PDP should be translated into clear operational criteria, the criteria to be used in selecting areas and beneficiaries should also be defined more specifically and a mechanism should be created whereby the Regional Planning Organization (BAPPEDA) can check whether the beneficiaries of a subproject meet the criteria for participation.
3. A greater effort should be made to involve local people in participation of sub-project selection. For sub-projects which require a certain skill from among the beneficiaries, the sectoral services should train the beneficiaries in these skills in the early stages of the implementation process.
3. Training inputs should be continued following a comprehensive assessment of their impact of current PDP training.
4. Reduced sub-project loan funding should be made available on a matching basis with GOI. Sub-projects should be viewed more as economic investments with adequate research given to their financial viability and sustainability.
5. USAID funds should not be used for basic remuneration of PDP personnel. Such responsibility should be transferred to the GOI.
6. USAID funds should be advanced periodically based on broad assessments of previous performance and GOI plans for the forthcoming year. The present reimbursement system should be ended entirely as it is inconsistent with the loan agreement.
7. USAID should support the process of preliminary design for future PDP expansion to new provinces. Extension of the PDP to new provinces should be based on measurable impact in present areas rather than on experimentation justifications. Agreed criteria for province and target area selection should be established so as to provide a basis for objective choice. Decisions on expansion should be firmly based on internal GOI and USAID evaluations of sufficient quality to demonstrate that effective learning has taken place from the experience of PDP I and II.
8. The Foreign AID Technical Committee should play a more active role in PDP, particularly in reviewing the decisions of the technical staff. Decisions on PDP expansion should be made with careful deliberation and at a slower pace than previously anticipated.

This evaluation was conducted by J. French, Team Leader, Science and Technology Bureau, AID/W; B. Glassburner, University of California at Davis; D. King, Northern Illinois University; L. Soetrisno, Gadjah Mada University, Jakarta; M. Poffenberger, University of California at Berkley; Soesiladi, Development Alternatives, Inc., Indonesia; and J. Van Sant, Research Triangle Institute, North Carolina.



## EVALUATION OF THE COOPERATIVE DEVELOPMENT PROJECT - INDONESIA

**PROBLEM & OVERVIEW.** It is the Government of Indonesia's (GOI) intention to provide a larger role in the Indonesian economy for cooperatives as a means to achieve Five-Year Plan objectives. The history of the cooperative movement has been political and is rooted in pre-independence times. Following independence, the growth of cooperatives was rapid but in the 1960's, many became sources of communist influence. During the anti-communist purge, all cooperatives were screened and all but 14,000 were disbanded. In the 1970's a new model cooperative, the KUD, was introduced with a primary focus on rice marketing. In 1973, GOI linked these organizations to its efforts to increase rice production and used the KUDs to distribute seed, fertilizer and insecticides. During this period, thousands of KUDs were organized and financed either at no cost or with low cost loans, most of which were never repaid. In 1978, the cooperative development authority was transferred and upgraded to ministerial level and GOI has placed further emphasis and effort into the development of cooperatives as a means of ensuring a higher level of economic well being for the rural populace.

**U.S. ASSISTANCE.** On June 30, 1976, AID entered into a 3-year, \$249,489 Grant Agreement (No. ASIA-G-1180) with the Cooperative League of the USA (CLUSA), under which CLUSA was to establish a sound cooperative development program in Indonesia. The GOI contribution was \$135,000. This program was to increase the capacity within the office of the Director General of Cooperatives (DITJENKOP) at the national, regional and kabupaten levels to do agri-business project identification, planning and development, to implement these projects effectively and to do project evaluation. At the close of the project it was expected that there would exist, as project outputs, the following: trained staff within the DITJENKOP in agri-business project planning, development, implementation and evaluation; agri-businesses established in agricultural cooperatives in rural areas; and the existence of a technical relationship between CLUSA and DITJENKOP and an Indonesian Federation of Cooperatives. The original project agreement was modified, the funding level increased and the Project Activities Completion Date (PACD) extended 15 different times. The current grant amount is \$816,234 and the PACD, June 30, 1982.

**PURPOSE OF EVALUATION.** The purpose is to assess the impact of CLUSA's presence on cooperative development in Indonesia. The evaluation focused on the project impact upon the staff of the Directorate General of Cooperatives and the intended beneficiaries participating in sub-project activities; project performance compared to the objectives in the original and amended project papers; AID, CLUSA, and GOI financial and other inputs; and the managerial role of CLUSA in cooperative development. The evaluation included visits to project sites, discussions with local officials, GOI staff, CLUSA representatives and a review of project documentation, reports and correspondence.

### **FINDINGS.**

1. Amendment No. 9 substantially altered the type and quantity of project inputs to be provided. This amendment extended the grant from April 30, 1979 to April 30, 1980 and added \$426,981 to the total of the original grant. Amendments Nos. 13, 14 and 15 further extended the PACD incrementally and No. 14 again increased the budget (by \$139,764) to \$816,234.

2. The training provided by CLUSA was not of the quality and quantity originally envisaged in the project paper. There is no doubt that the project achieved some degree of training. It seems likely that the episodes of training which CLUSA reports as "training sessions" could be better defined as "presentations" as virtually all transpired in a single day. They certainly could not have encompassed project planning techniques, feasibility studies, project implementation or project

evaluation. The project purpose has not entirely been achieved in that cooperative staff at the national and regional level are not at present actively planning, developing, or implementing agribusiness projects. CLUSA responded that GOI and CLUSA had changed their emphasis from training top DITJENKOP staff to on-the-job training and education of local government officials, cooperative employees, and farm leaders.

3. The major project output of developing 80 agribusiness (sub)projects of appropriate size managed by primary and/or secondary cooperatives for the benefit of their members was not reached. Projects identified in the early implementation phase did not meet the stipulated criteria. Of the financial resources available through this grant, no more than \$16,000 was actually used in eight projects that may have economically benefited cooperative members. The major projects initiated through CLUSA efforts were designed to establish a national level cooperative organization, identify it with a trademark and nationally publicize its existence. Yet the intent of the AID Project was to demonstrate to the GOI the value of cooperatives to national development through a "bottom-up" approach. Only two sub-projects appear to have been appropriate in size and design to be implemented by a primary cooperative. Over the life of the project, the definition of agribusiness sub-projects was applied solely to sub-activities of the Klaten project and the Aru Island Seaweed Project which subsequently failed. CLUSA representatives disagree with this evaluation team's conclusions. In its opinion, 110 sub-projects have been positively identified, are in various stages of feasibility study, or have been implemented.

4. A close and productive relationship between CLUSA and GOI entities did not develop. CLUSA representatives are said to have aroused antagonism within BAPPENDAS, the GOI national level planning agency, and to have greatly disappointed the Ministry of Finance regarding the handling of the \$1 million loan to the Klaten project. DITJENKOP cited its basic inability to communicate with CLUSA officials.

5. On July 21, 1981, AID/W effected a Transfer Authorization which passed Title of 5,700 metric tons of PL-480 Title II wheat from the US Dept. of Agriculture to CLUSA and thence to BULOG, the GOI's purchasing and distribution agent for agricultural products. The funds generated through the sale of this wheat (\$1.4 million) were, in effect, granted to CLUSA to carry out an expanded program in the Klaten project called the "Integrated Rural Food Systems Development Through Village Cooperatives." AID's greatest concerns with this proposed project are that it is based on an untested technology in Indonesia, the production and storage of silage, and that it is predicated on the successful operation of a modern feed mill, both of which are activities demanding very high levels of technological, managerial and operational competence.

PROJECT DESIGN & POLICY IMPLICATIONS. The project has not yet contributed significantly to achievement of "The establishment of a sound cooperative development program in Indonesia helping to improve economic progress and living conditions and a more equitable distribution of national income to the rural population," which was the major goal. A fundamental problem appears to be that the USAID Mission failed to identify or specify in the design phase in any quantitative terms the size or character of the sub-projects which were to be major outputs of the project. It then failed to use the evaluation process to gain an insight into the project's progress. The evaluation conducted by CLUSA in July, 1979 represents the sole effort to evaluate this project from the date of its initial implementation. The many amendments and extensions granted to this project, all of which were approved without the benefit of evaluation reports, indicate that the Mission had no clear idea of what was actually being accomplished under the grant. However, the Mission was well aware, throughout the early life of the project, that CLUSA was endeavoring to secure much greater amounts of resources over a much longer time frame than originally envisaged. These and other indications that the project was bound to exceed the parameters of the original grant were sufficient reason for the Mission to be concerned with project performance, and to assess that performance through the process of evaluation.

RECOMMENDATIONS.

1. No project or activity is too small to be the object of a substantive evaluation.
2. In the future, the Mission should devote the requisite resources in terms of manpower and skills to closely monitor this project.
3. USAID's concerns regarding the present and future status of CLUSA's role in cooperative development in Indonesia must be resolved before any additional AID funds can be committed to CLUSA for support of its Indonesian activities.
4. CLUSA should be requested to comply immediately with the reporting requirements set forth in the Transfer Authorization.

This evaluation was performed by Patrick Gage, Program Office, James Gingerich and Kevin Rushing of the Agriculture Office and staff members of the Office of Voluntary and Humanitarian Programs, all of USAID/Indonesia.

## EVALUATION OF THE RURAL ELECTRIFICATION I PROJECT (OUTER ISLANDS) - INDONESIA

PROBLEM AND OVERVIEW. Providing electricity to rural populations to stimulate decentralized economic development and improve the quality of life of the farming communities is a priority policy of the Government of Indonesia (GOI). Extending electricity to remote rural areas is the responsibility of the State Electricity Company (PLN). PLN has decentralized power generation in areas far from the main grids, including two of the three areas chosen. Three experimental rural electric cooperatives (coops) on three rural islands off the large island of Java will generate and distribute power in this project. These coops are experimental in that they are empowered to act outside the normal franchise of Indonesia coop activity. A Project Development Office (PDO) was set up within the Ministry of Cooperatives specifically to provide direction and guidance to the coops. The premises unique to this approach are that coops offer special advantages to consumers; that electricity may be provided at rates affordable by local populations; that electric coops can be effectively developed, locally governed and managed; and that the project as a whole will be financially viable.

U.S. ASSISTANCE. GOI, through the PLN, the Director General of Cooperatives (DGC) and the State Planning Board (BAPPENAS) requested AID technical and financial assistance for rural electrification (RE) as part of the US IGGI pledge for Indonesian Concessionary aid for FY 1977-78. The Project Paper (PP) was signed in August, 1977. USAID funding consisted of a grant (No. 497-0267) of \$6.5 million (signed in March, 1978) and a loan (No. 497-T-052) of \$10 million (signed in May, 1978). GOI committed \$17 million initially, but this contribution has risen to at least \$26 million. In addition, the Canadian International Development Authority (CIDA) committed \$22.15 million, primarily to cover the purchase, transport and installation of two or three 2.1 megawatt electrical generators at each site. The National Rural Electrification Cooperatives Association (NRECA) was contracted to deliver the technical assistance in training, operations and management. C.T. Main, Inc. was contracted for assistance in design and construction. In addition, AID financing included procurement of power distribution and housewiring equipment, materials and associated tools. The project intends to provide areawide electrical coverage to 207 villages and 61,500 households in Central Lampung, East Lombok and South Sulawesi (Luwu).

PURPOSE OF EVALUATION. This evaluation seeks to answer the following questions: How well does the new cooperative system work in practice? What are the shortcomings, and what should be done about them? Are the coops viable financially? Is the electricity affordable, particularly for the poor? Is it being used productively? What critical elements of project design and implementation affected the outcome of this project? What are the policy implications for RE?

Three previous evaluations have been performed: June, 1980, John McCarthy, ASIA/DP/PL; June, 1980, David Devin, USAID/Jakarta; and July, 1981, Robert C. Johnson, AID/Jakarta. This evaluation team conducted interviews, visited all three project sites and reviewed file documents. A few households at each site were also visited.

### FINDINGS.

1. No meaningful generation of power yet exists. Whatever capacity that has been established generates electricity at a high cost that will increase if present diesel fuel subsidies are removed. The project is two years behind schedule. Grant funds are running out. Costs have soared. The Coops and PDO cannot be self-sufficient institutions until the projected RE system is completed and operating.

2. The original project design was based on faulty economic analysis and over optimistic assumptions. It has long been abandoned as a baseline document. No new feasibility analysis has been done.

3. The PDO Director cannot accomplish all that is demanded of him.

The PDO director is capable and dedicated. His staff has been decimated by internal GOI funding cuts which arose because of delays in project implementation. Trained personnel have returned to other jobs or left the government. The staff can be rebuilt, but additional technical assistance will be required.

4. Coop management is weak and deficient in key areas, including fiscal management and accountability, staff discipline and experience. Managers are also hampered by lack of clear definitions of responsibilities and authority. To some extent this is rooted in public law governing cooperatives and the experimental nature of this project. Coops offer a possibility for providing good, locally managed service, but coops will probably never be democratically run on the U.S. model chosen.

5. None of the RE coops will be more than marginally financially viable even with successful productive users in the program. But such a program could have a beneficial impact on development, particularly in Lampung and Lombok. Removing diesel subsidies would further adversely affect the coops' financial position.

6. There is no major productive use customer in any of the three sites. This appears to be a result of the unavailability of day-time service. However, there is some level of household productive use in Lampung and Lombok.

7. The poorest households will not be able to afford electricity at the present tariff structure. No reliable income data are available for any of the three project areas. However, a wide range of income levels above the visually poorest level appears to be served. But even a small upward revision of tariffs would drastically affect this picture in Lampung and Lombok, unless accompanied by a downward revision of fixed monthly charges. In Luwu, where kerosene is much more expensive, every house within reach of lines is electrified.

8. The effectiveness of the NRECA technical assistance team has been varied. Excellent work was done in training and establishing procedures. This impact has been dissipated due to delays, turnover in coop staff, and other exogenous factors. Expatriate members could have been much more aggressive in pursuing project aims, influencing events in the field and making field visits. Field personnel effectiveness is greatly hampered by their inability to speak Indonesian. The project has essentially been viewed as an engineering rather than a development challenge.

9. USAID has been responsive to problems of communication and performance of the U.S. contractors. Staff have tried energetically to meet and resolve these problems, although needed changes in contractor personnel took two years to affect. AID personnel have not spent enough time in the field, particularly at difficult access sites. Luwu has not had a visit for two years.

PROJECT DESIGN AND POLICY IMPLICATION. The critical issue with this project is the NCREA feasibility study used as the basis for the USAID Project Paper. The financial analysis of the study depends on many erroneous assumptions. The study did not predict or allow for drastically increased cost of generation and fuel, now more than double the estimate used to prepare the PP. The assumptions regarding future levels of commercial connections seem over optimistic also. Many critical assumptions of the PP were based on a socio-economic survey performed by the Department of Social Economics of Bogor Agricultural University. This survey has various and major methodological problems. For example, the financial feasibility analysis of the USAID PP assumed that the tariffs to be set after electrification would be the lowest value that was suggested to the households by survey interviewers. Future RE projects call for much more rigorous feasibility analysis and planning. No definitive policy conclusions can be drawn at this early stage of the project.

## RECOMMENDATIONS.

1. Seven person-years of additional technical assistance is needed to provide site and central management support, and to develop a productive uses program.
2. It is important to involve a USAID consultant with experience in Productive Use programs to analyze the potential and design methods of promoting major productive use efforts.
3. An extensive income-consumption survey needs to be carried out, by a new contractor, in all three project areas in order to assess whether the project provides affordable electricity to a good percentage of poor households.
4. PLN and PDO should consider restructuring tariffs in order to increase coverage to the poorest households. One suggestion is to lower the monthly base charge and increase the variable (tariff) charge to at least the present PLN rate.
5. All site advisers should be required by contract to study Indonesian language and achieve at least an eight hundred word capability.
6. AID monitoring should be expanded to include an Indonesian-speaking development expert.
7. AID should authorize an independent evaluation six months after 500 megawatts of interim power units are supplied to each site.

This evaluation was performed by W.A. Schaffer and G. Anandalingam of the International Science & Technology Institute, Inc.

## EVALUATION SUMMARY OF TRAIL SUSPENSION BRIDGES PROJECT - NEPAL

PROBLEM & OVERVIEW. Much of Nepal's population is situated in remote, mountainous areas that are accessible only by trails. There are countless drainages in these hilly and mountainous locations that funnel water from the plentiful monsoons into rivulets, creeks, streams and major rivers. Communication and transportation needs are endlessly compounded by the complexity of these drainages. The engineering of bridges and roads is made more difficult by the seasonal characteristics of water flow and the geographical configurations and composition of the terrain. Thus the lack of transportation is one of the major obstacles to development. The construction and maintenance of all-weather foot bridges for human and livestock traffic is an important development objective.

U.S. ASSISTANCE. The Government of Nepal (HMG/N) and AID signed a 3 year Project Grant Agreement (No. 367-0119) in August, 1979 for \$4,799,000 of which \$3 million was AID's contribution. Prior to this project, USAID has provided assistance to HMG/Nepal for the construction of 22 suspension bridges during fiscal years 1958-1974. The project's purpose was to upgrade the HMG/N's institutional capacity to improve the national network of bridges and trails. The goal of the program was to enhance the quality of life in the rural agricultural sector Nepal's population by increasing the flow of goods/services to and from the rural area. The End of Project Status (EOPS) was the selection and construction of between eight and twelve bridges each year for a total minimum of 24 and a maximum of 36 bridges over the life of the project. The project was carried out in coordination with the Swiss Association for Technical Assistance and the U.S. Peace Corps and relies on both for engineering inputs.

PURPOSE OF EVALUATION. The Project Paper calls for a continual evaluation of the Project on both informal and formal bases in order to measure progress and identify potential problems. The project was first evaluated in August, 1980; however, no report was prepared. This second evaluation was held on July 10, 1981. Discussions were held with related project officials prior to the Evaluation Meeting of July 10, 1981. A review of all pertinent documents was accomplished. An Issues Paper was prepared and circulated to all concerned parties in HMG/N and AID/Nepal prior to the Evaluation Meeting.

### FINDINGS.

1. Eighteen bridges have been approved for funding. Nine bridges have been completed and nine others are partially completed. Sixteen bridges have been proposed for funding and construction during the coming fiscal year including three PCV designed local bridges. 18 survey teams were assigned in the 1980-1981 period. Thirty site surveys were completed by 1980, five more than planned. However, these surveys did not use the AID selection criteria as this procedural manual was not prepared until November, 1980.
2. The Trail Classification & Study component was dropped due to excess cost requirements for completing the study.
3. The Displaced Tradesmen Study contract was allowed to terminate. The contractor was unable to perform the study. It will be reconsidered if a new Project Activities Completion Date is established.
4. Three of the five engineers to be trained in the U.S. have completed a specially designed short-term course for geological engineering. Eight others are enrolled in India in ecological engineering.

5. The physical inventory of bridges has been completed. The FY 1982 maintenance budget has been increased by 122% over the Fy 1981 budget.

6. The Suspension Bridge Division has been transferred from the Ministry of Works and Transport to the Ministry of Local Development. This is a consolidation of responsibility with which AID/Nepal fully concurs.

7. The project has experienced several chronic problems. This include the transportation of bridge parts to remote construction sites, the transfer of project funds from AID to HMG/N and then to the project's account, and with the training component.

8. The revised system of reimbursement, implemented during the second year, appears to have solved the problem of slow disbursement. However, one complete year of implementation has not yet passed and its effectiveness cannot be fully evaluated at this time.

PROJECT DESIGN & POLICY IMPLICATIONS. The project's design did not adequately address the difficulties of transporting bridge building materials into the many remote implementation areas and project sites. Before implementation was scheduled, the Site Selection Criteria should have been well researched, developed and tested. Without structured consideration of physical and socio-economic circumstances and factors, it is difficult to assess if the impact intended by the placement of a bridge is consistent with the objectives of the project or whether it meets the criteria for intended beneficiaries. USAID and HMG/N fund transfer processes and reimbursement requirements should have been made flexible to adapt to the realities of the project and to the financial capabilities of the host government. USAID/Nepal's policies with regard to fund disbursement and project financing should be re-evaluated on a project-by-project basis. The Program Office's policy regarding pre-project startup criteria should be defined in terms of each project's specific needs. The transferring of authority for the Suspension Bridges Division to the Ministry of Local Development includes an expanded responsibility for design, construction and maintenance functions. This policy shift should significantly improve and facilitate institutional development.

#### RECOMMENDATIONS.

1. A joint review should be held six months from the date of this evaluation to determine if the Project Activities Completion Date is to be extended by one year.

2. Additional accounting staff should be assigned to the project to facilitate the timely submission of financial reports to USAID/Nepal.

3. AID and the Ministry of Local Development should agree to use a simplified procedure for approval of designs and release of funds for the construction of local bridges.

4. Project staff should work with the Ministry of Finance to develop and establish a system of expediting AID project advances to the project's account.

5. USAID/Nepal should consider engaging consultants or contractors to prepare materials that are considered vital to a project's implementation prior to implementation, e.g. the Standard Selection Criteria for Bridge Site Identification/Construction.

Participants in this evaluation were S.B. Rai, Joint Secretary, Ministry of Local Development; S. Lacoul, Project Manager; C.B. Pradhanang, Superintending Engineer, Technical Division; H. Kharel, Under Secretary, Remote Area Development Project; Dr. G. van der Vlugt, Acting Asst. Director, USAID/Nepal; D. Mutchler, P. Morris, M. Poole, and S. Shrestha, USAID/Nepal.



AN EVALUATION OF THE BICOL INTEGRATED AREA DEVELOPMENT II (BULA-MINALABAC LAND CONSOLIDATION)  
PHILIPPINES

PROBLEM AND OVERVIEW. A primary development strategy of the Government of the Philippines (GOP) is increasing agricultural production and improving the income of the rural poor through a variety of programs such as rural electrification, provincial development assistance and rural roads. Since 1974, a major emphasis has been support for an integrated area development (IAD) program in the Bicol River Basin in Southern Luzon, an area characterized by abundant natural resources and by extensive rural poverty. Between 1951 and 1979, the U.S. government, through AID, has obligated approximately \$132.7 million towards helping the GOP implement this strategy including \$28.4 million for five separate loan projects and two grants for technical assistance projects in this river basin. Obligations totaling \$46.8 million were granted by the Asian Development Bank (Bank) and the European Economic Community (EEC).

U.S. ASSISTANCE. The Bula-Minalabac Integrated Area Development Project (BIAD II), Project No. 492-0310, is an the AID component of the Bicol River Basin Development Program (BRBDP) effort under USAID-GOP National Economic and Development Authority (NEDA). The AID loan (No. 492-T-046) obligated \$3 million (FY 78-83), of the estimated total revised cost of \$10.1 million, for the establishment of a Pilot Land Consolidation Project in seven barangays of Southern Luzon. The total bilateral budget for BIAD II was originally estimated in 1977 at \$5.65 million. No other donors are involved. The First Project Agreement was signed in January, 1978 and amended in August, 1978. As of June 30, 1982, the GOP had already spent \$7.7 million; AID had disbursed a total of \$319,976 at that time and there were an estimated \$1.4 million in accrued expenditures of AID loan funds against physical work accomplished. The AID-financed component of this project includes construction of road access, drainage and pump irrigation facilities within the 2400-hectare project area, and procurement of O & M equipment. Nine distinct sub-sector activities involve the direct participation of 15 GOP agencies. The Project Management Office (PMO) is under the leadership of the Regional Director of the Ministry of Agrarian Reform (MAR), the lead agency.

PURPOSE OF EVALUATION. A major purpose is to develop a recommendation which will assist USAID/P to evaluate an official request from the GOP to extend the Project Activities Completion Date (PACD) by one year to December 31, 1983. Several evaluations have been performed including one in June, 1979 and another in June, 1981. This latter report noted that the original Project Implementation Plan was far behind schedule, a situation attributed to the complexity of the project. It recommended an 18-month extension of the PACD (to June 30, 1984) provided that 9 pre-conditions were met by the GOP prior to June 30, 1982. Five members of the 1982 evaluation team also took part in the 1981 evaluation.

FINDINGS.

1. Seven of the eight relevant pre-conditions have been accomplished. Action on the one remaining is in progress. One pre-condition, that PMO prepare a new revised budget, is obviated by new recommendations in this report.
2. PMO staff performance has improved sufficiently so that project completion is expected by December 31, 1983. The major management issue is what GOP agency will be responsible for the operation and maintenance of the completed irrigation system beginning in January, 1984 (pre-condition #8).
3. The implementation of the physical infrastructure component is essentially on schedule as revised in 1982. Progress in only two sites, Phase III-A and Phase V, is less than 67% completed.

4. The PMO still lacks the capability of designing a water management plan, organizing Irrigators' Associations (IAs), and providing these with the technical and managerial skills farmers will need to operate the systems. This conclusion was reached by the 1981 evaluation and still stands. It will be approximately ten years following completion of the system before the IAs can be primarily responsible for irrigation and drainage system operations and management.

5. Without adequate preparation, the IAs will operate the system at only 50% efficiency over the long term. Acceptable efficiency would be 80% of capacity. The cost of 50% inefficiency, i.e. inadequate IA organizational development and training, would be \$530,138 per year (at 1982 Peso exchange rate). Thus an investment by the GOP to improve the efficiency of the IAs by providing adequate training preparation to the IA farmer members should reduce significantly this cost.

6. USAID/ORAD has not assigned specific Technical Assistance and monitoring responsibility in order to meet organizational development and training requirements. This was recommended in the 1981 evaluation report. However, a Filipino water management consultant has been contracted to provide 80 days of TA to the PMO over the next 15-month period.

7. Farm level income data is insufficient to structure irrigation user fees. The 1981 report recommended a household incomes study be undertaken to assemble baseline data in order to construct accurate user fees. PMO data collection stands at only 20% completed, thus no assessment of impact can be expected to be completed by December, 1982.

8. No low-cost housing loan programs exist in either of the two municipalities of Bula and Minalabac; thus farmers forced to relocate who are without adequate resources to construct new homes are at a disadvantage. The 1981 evaluation included a recommendation for the inclusion of financing of home construction to meet this need. In addition, about 50% of the farmers in the project area are already in debt to other financing institutions and are not eligible for additional credit from the Land Bank of the Philippines.

9. Serious issues remain concerning the sustainability of project benefits beyond the recommended PACD of December 31, 1983. Under the threat of USAID deobligating a substantial percentage of the loan, the progress of construction of irrigation and drainage infrastructure significantly improved. However, as pointed out in the 1981 report, and in item #3 above, the PMO did not have the capacity to take appropriate action in the farmer development area without significant technical assistance. That technical assistance has not materialized.

PROJECT DESIGN AND POLICY IMPLICATIONS. There are three critical issues in this project: 1) the complexity of the project's design; 2) the original assessment of the capabilities of the lead agency charged with coordinating and implementing the activities; and 3) the provision of technical assistance to the project by USAID. The PMO has not been effective in completing its crucial assignments including: 1) the design, management and operation of the IAs; 2) making a realistic assessment of the farmers' technical capabilities and managerial skills for operation of the IAs; 3) collecting accurate data concerning farm level income, debt load, debt service obligations and using this data to construct viable water users' rate schedules; and 4) creating and administering viable, tested programs through which credit could be extended to farmers faced with relocation. The PMO was never equipped to handle the socio-economic and managerial components of this project. Its task was already enormously complex in that it was charged with coordinating the inputs and resolving problems of 15 different GOP agencies involved in the project. USAID should have been more responsive to prior evaluation recommendations. In sum, the physical and socio-economic components of this project have not been successfully meshed. The implication is that it will require substantial time, perhaps as much as 10 years, for the project to realize coherent management and cost efficient operational status.

**RECOMMENDATIONS.** A total of 29 recommendations are provided in the report. The 5 most important of these are summarized here.

1. USAID should approved a request from the GOP for an extension of the PACD to December 31, 1983.
2. The PMO should design a detailed implementation plan for the organizational development of the IAs and management training of farmers. At the request of the GOP, USAID should approve the use of Bicol IRD Project grant funds for additional short-term technical assistance to help the PMO in the design of an effective strategy for IA organizational development and training. At least three additional staff members should be assigned to the PMO with full time responsibility for organizational development of IAs and training of their members.
3. USAID should assign explicit responsibility to a specific person in ORAD to provide TA and monitoring of the Institutional Development component of the Project.
4. A new organizational structure for the PMO should be established in order to provide for a smooth transition from the construction phase to the operation of the system and beyond.
5. The GOP should decide no later than November 30, 1982 what specific proportion of systems amortization and O & M expenses the Irrigators' Association will be required to pay and then establish an appropriate and equitable Water Users Fee.

This evaluation was conducted by J. Silverman, Team Leader, Development Alternatives, Inc.; H. Echiverre, G. Beluang (Project Manager), J. Abonita, F. Ramos, H. Villaraza, F. Balitaan of MAR; D. Monasterio, NACIAD, P. Novick, O. Bermillo and S. Roco of USAID and R. Undan of CLSU.

ASSESSMENT OF THE RURAL SERVICE CENTER PROJECT, ITS IMPACT ON CITY GOVERNMENT AND ITS IMPACT ON THE BENEFICIARIES OF ITS INCOME GENERATING PROJECTS - PHILIPPINES

PROBLEM & OVERVIEW. The Government of the Philippines (GOP) is attempting to preserve and strengthen the role of the century old, basic governmental unit, the barangay, as the center and launching point for every socio-economic development program and project. A key need is building the capabilities of barangays at both city and village government levels to respond to the development needs of poverty groups within their boundaries. An essential component upon which the successful solution to this need must build is securing the participation of the people in the development process, i.e. in the selection, design, and implementation of those projects that will benefit them.

U.S. ASSISTANCE. The Rural Service Center (RSC) project (No. 492-0304) is a \$8.4 million, two-pronged effort by GOP to build the capabilities of city and village governments to respond to the development needs of poverty groups within their boundaries. USAID's contribution is \$1.7 million over the five-year period. The GOP is providing the balance or \$6.7 million. One component of the project is the "City Development Assistance Program", or CDAP, which has an objective of assisting 16 pilot chartered cities through deploying and training City Planning and Development Staff (CPDS). A second is assisting in the development of income-generating sub-project in the barangays through formation of "associations of the poor."

PURPOSE OF EVALUATION. The assessment's main purpose is to provide a recommendation to USAID/Manila in regard to future USAID assistance to the RSC Project. In addition, it was expected that the assessment would be able to identify some lessons learned that would have applicability and/or relevance to certain other GOP/USAID activities ongoing or planned. The major objectives were (1) to assess the validity of the RSC approach as a means of responding to the development needs of the rural poor; (2) assess the feasibility of the RSC program to expand beyond the 16 pilot chartered cities; and (3) recommend the future role of foreign donors, including USAID, in the RSC Program. The assessment process involved field trips and interviews, reviews of project documents, previous evaluations, field trip reports, correspondence files and other relevant information and the analysis of data.

FINDINGS.

1. The effectiveness of the RSC project is seriously undermined by delays in the quarterly releases of the RSC operating budget. This results in delays in implementation and funding, cancellation of field trips and training programs and a lowering of staff morale.
2. The RSC/CDAP staff is well-educated and highly motivated but lacks experience. Insufficient travel funds prevent staff from traveling with RSC consultants and gaining additional experience.
3. The sub-project approval process could be shortened. Overall it is relatively efficient but some steps could be shortened so that the entire process is accomplished in less than one year as compared to the current 410-day average cycle.
4. Planning capabilities of the CPDS were already developed before the RSC program was introduced in some cases. However, under RSC, the focus of planning has shifted to the barangay and the role of CPDS has broadened to include project implementors.
5. CPDS lacks certain skills in preparation of project designs, project monitoring and evaluation, and community organization. The CPDS offices are generally understaffed given its wide scope of responsibilities. They are also not given sufficient guidance from the Ministry of Local Government (MLG)/CDAP in project design, implementation, monitoring and evaluation.

6. The CPDS is not generally field-oriented. They lack an understanding and commitment to RSC poverty focus and people's participation. They do not always follow the RSC concept of poverty group participation in sub-project identification, selection and design, often making these decisions in-house.

7. There was little evidence that city officials were, in general, more concerned with the issues of poverty, equity and participation. Some are unaware of RSC programs and concepts.

8. RSC income-generating projects are having a positive effect on the attitudes of beneficiaries. There are feelings of well-being and of belonging to a viable association, of entrepreneurial desire and optimism, and much evidence of volunteerism and selfless service apparently fostered by the RSC project.

9. The economic impact of the sub-projects appears significant especially if compared with pre-sub-project status of the beneficiaries.

#### PROJECT DESIGN & POLICY IMPLICATIONS.

At both the city and barangay (village) levels, the project has resulted in improved planning and development capabilities of city officials. A number of sound, participatory, income-generating sub-projects have been established. In summary, the project has achieved the goal of establishing a model which can be replicated in practice. However, no matter how sound the project design may be, unless the institutionalization of the program at the central level is accomplished, the model will not become the source of an effective policy determination. There are, at present, serious questions regarding the centralized organization's ability to administer the program effectively and to expand it to additional cities in the future. These concerns are noted in the foregoing findings section and solutions are proposed in the following recommendations section. The striking conclusion drawn by the evaluation team was that should USAID pull out at this time, the program would fold. Although this would be unfortunate from the standpoint of losing the existing groundwork and progress to date, as well as the investment, it is questionable whether USAID should continue to invest in a program unless the host government is seriously committed to its goals and unless these commitments are borne out through concrete action to implement the recommendations which address USAID's concerns. The question is complicated by the attitude of the host authorities. The evaluation team has determined, for example, that to at least some degree, the delay in payments of salaries and expenses and in project funding can be traced to the uncertainty of the USAID extension of the project.

#### RECOMMENDATIONS.

1. USAID should continue its assistance to MLG/CDAP for the RSC project for another five years. The first half of that assistance should be devoted to refinement and replication of the existing program. The second period to concentrating on institutionalizing the program within the MLG's permanent structure, preferably within the Bureau of Local Government.

2. The MLG/CDAP should take steps to ensure that the budgetary problems are resolved before USAID considers additional assistance.

3. MLG/CDAP should review the sub-project process, ascertain a maximum and minimum time for each step, establish a time-log chart for all projects, and inform the concerned cities of the required time frames.

4. The seed money component should be either eliminated or the amount increased by 50% and steps taken to ensure its release before project implementation begins.

5. Efforts (seminars, workshops, in-service training) to upgrade the skills of CPDS in project design, monitoring and evaluation, and community organization and development should be pursued.

6. Additional efforts should be made by MLG/CDAP to make city officials aware of the RSC program and the concepts of people's participation and poverty group focus.

This evaluation was performed by Bill Berg, Chief of Party, USAID/Jakarta; Dr. Richard Schwenk, an anthropologist; and Perla Legaspi, a specialist in local government and participatory rural development.

## A JOINT REVIEW OF THE MAHAWELI GANGA DEVELOPMENT PROJECT II - SRI LANKA

PROBLEM & OVERVIEW. In 1977, the Government of Sri Lanka (GOSL) undertook a major land development and resettlement program in the Mahaweli River Drainage for the purpose of expanding agricultural production and reconfiguring the distribution of the island nation's agrarian population. This program involved land clearing and levelling, the development of hydroelectric potential and of a massive irrigation infrastructure, the establishment of water supplies, the construction of roads and buildings to house government services and settlers, and the development and expansion of basic agricultural, health, education and other public services for the immigrant population.

FOREIGN ASSISTANCE. The Mahaweli Development program was endorsed and supported by the community of international multilateral and bilateral developmental assistance and lending institutions including the World Bank, (IDA and its donor-member affiliates), the Overseas Development Authority of the British Government (ODA), USAID, the Canadian International Development Authority (CIDA), the Government of the Netherlands and some United Nations agencies including UNICEF. All made substantial grants-in-aid and soft loans available to GOSL for this program. Total project costs are estimated at Sri Lankan Rs. 1.11 billion.

PURPOSE OF THIS REVIEW. A joint review mission comprised of representatives of the U.K., Canada, the U.S., The Netherlands and the IDA reviewed the project implementation progress in order to assist GOSL in the decisions and actions to be taken in the further implementation of the project. The review took place from March 4 to 16, 1982. A similar review took place in 1981.

### FINDINGS.

1. The construction of the irrigation system infrastructure has been completed except for Block 419. However, the completed irrigation infrastructure, particularly at the distributory canal and field canal level, will not function as planned to enable efficient and equitable water delivery. The amount of repair, modification and cleanup work required is substantial and will cost about U.S. \$1.5 million. In order to accomplish this work within 1 to 2 years, a special construction program will have to be set up.
2. About 580 buildings remain to be completed not including those that would be provided for the proposed Training Centers. The buildings constructed are functional and of generally acceptable quality.
3. The road system is nearing completion and is considered adequate for the purpose of the project. Tree planting has started in some areas.
4. Newly constructed covered wells fitted with UNICEF provided handpumps are producing excellent potable water. The homes and offices of personnel of the Mahaweli Authority and various government departments are being adequately supplied with water. However, no provision has been made under the Project for the supply of water (and other services) to other inhabitants in the larger hamlets, villages and towns in the Project area.
5. The projected total project cost is now Rs. 1.11 billion. This is Rs. 80 million less than the estimate prepared at the time of the 1981 review. The difference is due mostly because of reduction in equipment costs. 1981 actual expenditures totalled Rs. 813 million, or 73% of the total estimated project cost. 1982 budgeted expenditures are Rs. 221 million, or 20% of the total estimated project cost, leaving Rs. 76 million to be spent in 1983.

6. As a result of drought during the second half of 1981 and the first months of 1982, the Maha seasonal production has been seriously affected. Loan repayment records have been variable for all banks in System H as adverse climatic conditions dramatically dropped the recovery rate. Many newly settled farmers have suffered the loss of their first year's crops and some have suffered two successive crop failures.

7. The Mission notes that the modified version of the T & V system deviates significantly from the T & V practices agreed to by GOSL during negotiations for the Agricultural Extension and Research Project. This is particularly the case in the areas where seconded agricultural staff are employed. The Mission and the project donors are of the view that agricultural extension activities be implemented consistent with the T & V system.

8. Land Development Ordinance permits for the sale of land to the farmers will be available starting May, 1982. 22,726 farmers are expected to benefit from this ordinance and eventually receive title to their land.

9. Of 288 villages to be acquired in the System H area, 271 have been acquired; however, only 13 villages have received full compensation and only 31 have received partial compensations.

#### PROJECT DESIGN & POLICY IMPLICATIONS.

In a very large, complex project such as this, it is important not to lose sight of the primary goals and the target beneficiaries to whom all efforts are directed and in whose welfare the project is justified. In the case of farmer/landholders in System H, there is evidence that the ticklish element of land acquisition and the issue of swift and equitable compensation to these displaced landholders has not been accomplished with the interests of the former landholders foremost in mind. For example, no master plan exists for the supply of potable drinking water and other services to the inhabitants in the larger hamlets, villages and towns in the Project area. There is also the concern expressed by this Mission about the lack of discipline of farmers in System H. Added to these concerns is the effect of adverse climatic conditions on the paddy yields and the increased number of loan defaulters. Given these issues, careful monitoring of the community development programs is required to ensure that these programs remain focused on and responsive to community needs. More training and assistance, particularly through the various extension programs, will be required to strengthen the social and economic relationships of the settlers. The direction which community development takes will have great political, social, and economic implications. It will, to a large extent, determine the ultimate success or failure of the Project.

#### RECOMMENDATIONS.

1. A massive and concerted effort must be made to make the irrigation system responsive and operational. The Mission recommends that the distribution canals be lined with concrete and that a special construction unit undertake this activity financed from unallocated project funds. A brief interim project review in September 1982 and a full review in January 1983 are advised to evaluate implementation of this recommendation.

2. The mission recommends that water management staff at block level be trained to carry out the bi-annual inspections using standard forms to note the nature and quantity of work to be done. It also recommends that the Irrigation Engineer make an annual inspection of the system down to the farmgate level during the Maha season when water is being issued to ascertain that all structures are functioning properly and that issues can be monitored. Firm control of the settlement patterns, newly constructed irrigation system and water issues must be exercised. This discipline should also extend beyond the farmers to all water management personnel.



3. The Mission recommends a final inspection of all buildings and premises be made in order to ensure that they are properly finished and landscaped.

4. The Mission recommends that consideration be given to the phasing of the repayment of input loans where inevitable default arises and that some means of extending further bank credit to these farmers is found to enable them to continue cultivation of their plots.

5. The Mission requests that MEA clearly define how the agreed to T & V concepts will be incorporated under MEA project operation.

6. The Mission re-emphasizes the 1981 review recommendation that "an analysis of farm power needs and a forecast of future demand be made. The analysis should give due weight to the effect of timely cultivation on water consumption, weed control and yields, differentiating between the LHG and RBE soils."

7. The Mission recommends that continuing attention be given to the matter of compensation for acquired land to enable former owners to be paid as quickly as possible.

Participants in this review were Bob Bell, Agricultural Engineering Advisor, ODA; Y. Pan, First Secretary, Canadian High Commission; Henk Saaltink, Canadian Advisor for Mahaweli Development; J. Evans, Chief, Mahaweli Development Division and Don Clark, USAID; Peter Streng, Economist and Stanley Baker, Deputy Division Chief and Mission Leader, IDA. Andy Tainsh, ODA, joined the mission during the final stage of the review.

## FINAL EVALUATION OF THE RURAL OFF-FARM EMPLOYMENT ASSESSMENT PROJECT (ROFEAP) - THAILAND

PROBLEM & OVERVIEW. Although Thailand's real per capita income growth has increased 4% annually over the past two decades, it has been unevenly distributed across the population. Industrial policy emphasizing large and capital intensive investment has led to a concentration of manufacturing activities in the Central region. Agricultural policy emphasizing mechanization has favored larger farms. These and other policies have yielded a more uneven distribution of income than might otherwise have been possible and have constrained demand for labor. Although the birthrate has fallen in recent years, the large number of births since 1960 will create a substantial increase in the rural labor force in the near future. Because of continuing mechanization, this labor force will not be able to find acceptable income and employment opportunities in agriculture. The next 10 to 15 years, therefore, constitute a critical economic and political period in which significant efforts must be made to absorb labor in productive activities outside agriculture.

U.S. ASSISTANCE. The Rural Off-farm Employment Assessment Project (ROFEAP: Project No. 493-0306) was initiated in May, 1979 to assist the Royal Thai Government (RTG) in identifying interventions which could serve to increase the rate of growth of productive non-agricultural employment in rural areas. The essential purpose of ROFEAP, which terminated in September, 1982, was to generate data and analyses that could enable the RTG, USAID and other donor agencies to design, implement and evaluate policies, programs and projects to promote rural small-scale industry. The research consisted of three interrelated components: a rural non-farm enterprise component, farm level surveys, and an analysis of rural financial markets. U.S. assistance in the project, implemented through Kasetsart University, was \$923,320, drawn from grant funds and DS/RAD centrally funded project funds. The RTG contributed \$170,000 in local currency. U.S. funds were used primarily to support a full-time research advisor and short-term technical assistance from Michigan State (MSU) and Ohio State Universities (OSU).

PURPOSE OF THE EVALUATION. The purpose of the final evaluation was to provide USAID, the RTG and other donors with information that would enable them to determine whether ROFEAP findings offer potential for future project development, either as a discrete project or as a component of other projects (Annex 1). To this end, the team was to: (1) determine if project objectives were achieved; (2) identify constraints impeding development of the rural non/off farm sector; and (3) discuss specific interventions related to carrying out activities in this sector. The findings, conclusions and recommendations are based on discussions of sectoral problems and activities with U.S. and Thai project personnel, RTG officials, USAID staff and consultants, representatives of other donor agencies and private individuals in Bangkok and Khon Kaen (Annex 2), and a review of documentation produced by the project (Annex 3) and other agencies (Annex 10).

### FINDINGS.

1. ROFEAP has been only partially successful in achieving its objectives. According to the PP (February 16, 1979), the basic purpose was to generate data and analyses to be used in the design, implementation, and evaluation of policies, programs and projects. Only one potential project has been identified which, to some extent, has been an ongoing RTG activity for several years.

2. The rural enterprise component provides a comprehensive inventory of the employment, economic and technical characteristics of local enterprise. The inventory suggests that the extent of rural non-agricultural enterprise has been underestimated, and the information on the 14 enterprise types can be very useful to individuals interested in these particular industries. This data, however, has only limited utility for policy, program, and project development.

3. The farm level surveys provide an enormous resource of highly detailed information which can be used for a variety of design and assessment purposes. The data underscores the importance of household manufacturing and non-agricultural work away from the farm as a means of increasing rural income directly. Capital important for initiating other agricultural activity is also generated indirectly. The data can be used to examine farm credit schemes, seasonal opportunity costs of labor, the interaction of agriculture and non-agriculture, "cottage" industry promotion, labor absorption in new cropping patterns and the week-to-week pattern of farm household income generation throughout the year. Care should be taken not to generalize the data to areas outside of those surveyed.

4. The rural financial markets component provides some useful information on the characteristics of formal institutional lenders in rural areas. The data can be very helpful in designing rural credit schemes and in determining their justification, particularly as to how various types of households use funds on a weekly basis. Efforts to obtain similar information from town-based enterprises failed to generate much useful information.

PROJECT DESIGN AND POLICY IMPLICATIONS. There are two clear, basic implications for future projects of this type. The most important is that design be set in a policy, program and project-oriented framework. One of the major reasons that this project did not achieve all of its objectives was that the project was designed without a clear vision of the kinds of uses to which research outputs would be put. As a result, several of the component objectives, methodologies and data requirements were organized to answer questions largely irrelevant in a policy or program framework.

Research and analysis undertaken during the past few years by the RTG and interested donors (World Bank, ILO) point to the conclusion that agriculture will soon no longer be able to provide increasing income generation opportunities to an expanding national labor force. The RTG is beginning to commit itself to a policy of more comprehensive approaches to rural development. Industrial expansion is an important strategy of this emerging rural development policy. The commitment to this strategy is a reflection of the government's realization that rural industrialization, particularly in small scale industries, is an effective means of providing employment and income to the rural poor. The ROFEAP project has generated a wealth of valuable data and information which may be appropriately disseminated and integrated into rural development projects which support current RTG policy directions.

The second implication is that AID monitor such projects carefully and with vigor in order to assure that project outcomes satisfy USAID and host government agendas rather than only researcher goals. This will assure less wastage of U.S. assistance resources. In this case USAID was not effective in reorienting the project during implementation because, to some extent, the mission was not particularly interested in the project or its objectives.

#### RECOMMENDATIONS.

1. A non-farm enterprise component be integrated into the Northeast Rainfed Agricultural Development Project (NERAD).

2. A similar component be integrated into the institutional strengthening aspects of the proposed Rainfed Agricultural Intensification project (RAI).

3. A rural industry promotion component be integrated into the Private Sector in Development project (PSD) in collaboration with the Industrial Finance Corporation of Thailand (IFCT).

4. A training and institutional strengthening project be developed for improving the effectiveness of Community Development Department agents and Industrial Service Institute personnel in promoting non-farm enterprise in villages.

5. AID should support a NEDSDB survey of economic and enterprise potential in the Northeast region.

6. The team strongly urges a 3 to 4 man-month effort to synthesize the ROFEAP data and findings into a book that can be widely distributed to professional audiences in Thailand. ROFEAP workshops, conferences and papers have not adequately diffused information gathered to potential users (Annex 5).

This evaluation was conducted and written by Dr. Narongchai Akrasanee of the Industrial Management Co., Ltd., Bangkok, Thailand, and Simon M. Fass of the Hubert H. Humphrey Institute of Public Affairs, University of Minnesota.

## EVALUATION REPORT OF THE SALVATION ARMY'S RURAL HEALTH CARE PROJECT IN JESSORE, BANGLADESH

PROBLEM & OVERVIEW. Providing quality healthcare services to the rural poor of Bangladesh is a prime objective of the Government of Bangladesh. The government's own healthcare program, although national in scope, encourages and makes use of private voluntary organizations (PVOs) to augment and deliver more specialized services to well-defined target groups. Such PVO programs are operated in conformity with national policy and program objectives and are often funded by bilateral and multilateral donors through registered intermediaries such as The Salvation Army of the U.S. Many of the PVOs which currently are operating in Bangladesh established a useful presence in the period after the War of Liberation and/or in the aftermath of the cyclonic devastation of 1973.

U.S. ASSISTANCE. The Salvation Army, U.S.A., established a health care program in 1971 in the town of Jessore. In 1980, a three-year revised program was initiated with USAID/Bangladesh funding through an Operations Program Grant. The goals of this program are to improve the health of the target population, to reduce illness by emphasizing preventive medicine and to deliver curative services to the ill. Specific objectives of the revised program call for (1) re-organization and re-establishment of the Newtown Health Clinic (NTC) and the Nutrition Rehabilitation Unit (NRU); (2) upgrading and improving the quality of existing clinic services and the quality of health care management throughout the project; (3) expanding medical services to a number of rural communities; (4) building in procedures for sound evaluations.

PURPOSE OF EVALUATION. This evaluation was to assess the progress of the project in adopting and implementing the recommendations which were developed from an evaluation of the project's activities at the end of the first year of this three-year revised program. Discussions and interviews were held with project staff and beneficiaries, records and supplies were reviewed and examined, and observations of services were made in performing this evaluation. This evaluation report compares its findings with those of the previous evaluation, analyzes what recommendations were adopted and comments on the success of those which have been implemented. Further recommendations are also offered.

### FINDINGS.

1. The NRU has been re-established in a new building that is closer to the NTC; however, the new accommodation is still inadequate for its needs. Attempts are being made to place both in the same compound.
2. New management of the NRU is in place and general care and patient attention has visibly improved including better feeding menus and schedules.
3. Medical care at the NRU seems to have improved although insufficient time is allotted to the children since the doctors face heavy caseloads at the NTC in the mornings. NRU staff still need regular instruction in monitoring day-to-day conditions and evaluating causes for delay in weight gain or recuperation.
4. NRU patient follow-up remains poor. There is some improvement in record-keeping but important information from patients is still not being taken and regular monitoring of those who fail to return for regularly scheduled check-ups is non-existent.

5. Health education classes for mothers is now held 3 times a week. However, attendance is sporadic. Still, mothers are provided with the opportunity to gain knowledge. The number of children and women immunized every month has been increasing. The completion rate of immunization courses is very satisfactory.
6. New NTC leadership has resulted in much improvement in the management and provision of services. The Health Services Director is totally committed to his assignment and responsibilities. The new Health Teacher is enthusiastic although the teaching room needs improvement. The "Under Five" Clinics are increasingly well attended.
7. The large number of patients suffering from venereal disease is evident but no record of any gynaecological or other complications derived from these diseases are noted, particularly salpingitis. This may be partially due to the cultural preference among Muslim women for female physicians. In the absence of female physicians, many cases go undetected. The same is perhaps true of obstetrical complications or post-natal situations.
8. Acceptance of family planning shows an increase in the latter half of the year. However, record-keeping is not satisfactory as new and repeat acceptors are not shown separately nor is any record kept or advice given on side effects of the oral contraceptive.
9. The types of diseases recorded in the clinics are nearly 80% preventable.
10. It is still premature to expect any measurable effect of the outreach activities. Two villages and a crowded area in a satellite town close to the NTC were selected for the outreach program. A baseline survey was conducted. Daily house-to-house visits by mobile teams are being made.

PROJECT DESIGN & POLICY IMPLICATIONS. An important and fundamental dichotomy exists in the aims of this project. This is the preventive and the curative elements. The system of daily curative clinics makes people curative minded and is neither good for the patients nor for the staff of the NTC. It is desirable and necessary to achieve the more important, long term goal of instilling in the populace the practice of preventive healthcare. Yet the humanitarian importance of treating the seriously ill and those who travel great distances for medical care cannot be denied. There are many elements of this project which cannot be measured and yet play vital roles in its ultimate success and continuation of the program. The sincerity of purpose, the good will, the understanding of the villagers problems and, above all, the spirit of service are some of the key elements that enhance and sustain project acceptability and viability. At the same time, care must be taken to avoid creating an unusual dependence, and to duplicating efforts of the national program. Establishing and maintaining satisfactory working relationships, coordination links and cooperative behavior with the local authorities of the Ministry of Health and Population Control and adhering to the national healthcare policy are fundamental responsibilities of the project sponsors.

#### RECOMMENDATIONS.

1. Two weeks' training at the SCF(UK) clinic in Dacca for the new nurse-in-charge, the NRU physician and the Health Educators should be arranged.
2. Periodic sessions with full NRU and NTC staffs in which problems are aired and ways and means to improve services and facilities discussed, goals and objectives reviewed in terms of achievements and work accomplished, and coordinated work schedules developed for the next period are activities highly recommended.

3. Records of children discharged or referred should be established and maintained separately from day-to-day records. Follow-up of defaulters and discharged children should be initiated.
4. The registration, health education and the women's waiting room of the NTC need immediate attention and improvement.
5. Consideration should be given to establishing a bi-weekly afternoon obstetrics and gynaecological clinic attended by an experienced lady physician.
6. Family planning services must be given more priority at the NTC and record-keeping must be improved and made consistent. NTC work should be co-ordinated with the outreach program with follow-up of drop-outs.
7. Serious consideration should be given to the frequency of morning and afternoon clinics at the NRU. Reducing staff at the NTC and initiating regular mobile clinics in the villages is one plausible way of shifting program emphasis to preventive healthcare.

This evaluation was performed by Dr. Mina Malakar, Christian Health Care Project Director, Dakha, Bangladesh.

## EVALUATION SUMMARY OF THE ASIA FOUNDATION POPULATION PROJECT - BANGLADESH

PROBLEM & OVERVIEW. The Government of Bangladesh (BDG) has placed highest priority on controlling population growth and has enlisted the financial and technical support of many bilateral and multilateral donors to achieve this strategic objective. A major contributor to the population control effort is AID through the USAID Mission in Bangladesh. USAID has encouraged Private Voluntary Organizations (PVOs) to develop innovative programs and has established a mechanism through which qualified PVOs may apply for, receive and administer AID funds for furthering objectives of population projects approved by BDG (Ministry of Health and Population Control) and the Mission.

U.S. ASSISTANCE. Since 1979, The Asia Foundation (TAF) has been the recipient of an Operations Program Grant (OPG) (Project No. 388-0010-04) of \$500,000 used for funding a number of small subgrants to local Bangladeshi PVOs implementing programs with family planning objectives.

PURPOSE OF EVALUATION. USAID and TAF held a joint review to assess project implementation during the 1981-82 fiscal year. Besides assessing implementation performance, the review was used to address problem areas identified in the Third Annual Evaluation Report and to discuss future directions under the TAF/Population Grant

### FINDINGS.

1. Overall, performance in this third year of grant activity has been good. Four ongoing activities were refunded; five new subgrants were funded; one large new project and two more new subgrants are in the approval process. All funds are expected to be expended by the Project Activities Completion Date of August 22, 1983.
2. TAF's annual program and subgrant evaluations have improved significantly in the quality of project performance data. A stable staff situation in the TAF/Dacca office has facilitated this stepped-up pace of project activity and improved performance.

PROJECT DESIGN & POLICY IMPLICATIONS. TAF has taken steps to implement AID's recommendations on project design in last year's Project Evaluation Summary. However, certain philosophical differences remain between TAF and AID. TAF views integrated community development projects as more effective, while AID's overriding concern is on family planning service delivery. AID suggested during the review that these tensions could be partially resolved if community development activities were more closely linked with family planning acceptance or if community development activities could be funded from other sources.

### RECOMMENDATIONS.

1. TAF sub-grants due for refunding should be tailored to the standards and specifications of the Family Planning Services Project (#388-0050) as follow on funding in FY84 appears most likely through this project.
2. TAF strategy for population activities for the next two years should be to implement projects initiated during the recent expansion and not to seek out major new starts unless they are exceptionally promising and appear worth the risk that future funding may not be available at current levels.

This review was conducted by S. Conly, S. Olds, and C. Gurney, Office of Health and Population, USAID/Dacca and S. Wallen, TAF Acting Representative, Dacca.



## MID-TERM EVALUATION OF USAID FAMILY PLANNING SERVICES PROJECT - BANGLADESH

**PROBLEM & OVERVIEW.** The importance of bringing population growth under control was recognized by the government of Bangladesh (BDG) when a comprehensive population policy was adopted in 1976. The high priority of the problem was confirmed in the Second Five Year Plan which presented specific goals of the population program in context with socio-economic development. In the 1980-85 plan, the crude birth rate was to drop to 31.56 per thousand, the crude death rate to 13.78 per thousand, and 37.5% of all eligible couples were to be classed as continuing contraceptive users. The government's policy also gives emphasis to "beyond family planning" measures. Three major donors to the population program are the International Development Association (IDA) of the World Bank, the UNFPA and USAID. UN agencies, such as WHO and UNICEF, and other multilateral donors such as the Asian Development Bank and the Arab Development Fund also contribute indirectly to the population program.

**U.S. ASSISTANCE.** USAID assistance through the Family Planning Services Project (FPSP), (No. 388-0050) is mainly for supplies and equipment (56.4%) and support to Non-governmental organizations (NGOs) (39.5%). All oral contraceptive pill and condom requirements for the country are supplied by USAID. USAID also provides assistance for the training of field workers and program managers through grants to NGOs (CARE, IPAVS, etc.) and through fellowships. The objectives of USAID's support are to improve the quality of voluntary surgical contraception (VSC); to provide contraceptives and other commodities; to conduct operations research on service delivery and measure changes in contraceptive prevalence; and to provide training for improved service delivery. The USAID commitment for the period 1980 to 1985 is \$51.74 million. Since 1975, USAID has committed \$67.44 million, UNFPA \$35 million, and IDA \$140 million.

**PURPOSE OF EVALUATION.** This evaluation sought to 1) assess the strategy, inputs, processes and outputs of the current USAID FPSP; and 2) recommend feasible and cost-effective interventions to assist the family planning program reach a contraceptive prevalence rate (CPR) of effective methods of 30% by 1985. Interviews were held with BDG and USAID officials, with donor and NGO representatives and with program beneficiaries. Several field trips were made. The in-country time of three weeks was inadequate to cover all facets of this project. A 1980 USAID evaluation noted that crude birth rate, death rate and prevalence of use goals as set by BDG in the Second Five Year Plan were "somewhat unrealistic." That report recommended that BDG revise these goals and its targets for program achievement.

### **FINDINGS.**

1. The Population Control and Family Planning (PCFPD) Program is conceptually sound and reflects a strong political will that is widely understood throughout the country, but is increasingly difficult to sustain in the present economic situation. While nearly all sectors of government have been put on an austerity budget, the population sector has been afforded special treatment. However, the hiring freeze has not been waived and there exist many critical shortages. Budget restrictions have eliminated such projects as ZPG and training of local religious leaders. Disbursement delays threaten the continuity of the program as well.

2. Current prevalence data, coupled with the observed evidence of latent demand for family planning, lead the team to believe that prevalence rates can be increased to 30% in the current plan if full implementation of the PCFP Program is pursued. The reported increase in the prevalence rate (from 12.6% to 18.6%) is less reassuring than it appears since a substantial portion is explained by an increase in methods with high failure rates. Improved demand for IUD insertion may be due to increased access to this method with 3227 Family Welfare Visitors placed.

3. Program implementation is hampered by too frequent changes in direction and by shortcomings in organization, administration, logistics and supply management, training and supervision. Full utilization of the resources available through FPSP has been slowed by these persistent problems. Nevertheless, the project has contributed constructively to the national program. The 1980 reorganization merging health and family planning delivery systems introduced an unclear chain of command and a lack of coordination even at the highest levels of implementation.

(a) non-family planning, MCH functions are largely neglected as program incentives favor the recruitment of sterilization cases. However, there is strict observance of voluntarism and compliance with fully informed consent procedures for VSC. Consent forms are being properly completed, new anaesthesia protocol is observed, emergency drugs and equipment are on hand, and clients are appropriately monitored. The surveillance team is nearly operational.

(b) The project's financial reimbursement gap is critical. If not ameliorated quickly, it will seriously affect program performance, particularly the continuity of the VSC program.

(c) The widespread neglect of supply reporting observed in the last two years has reportedly improved just prior to this evaluation due to top-level interest and key personnel changes. Expanded commodities requirements have outgrown the original supply system's storage capacity and transport capabilities.

(d) NGO activities account for the bulk of service delivery in the urban areas.

(e) Many shortcomings of training are traceable to inadequacies of past training design which were derived from prevalent misconceptions about the nature of training. The lack of skills development content in field worker training is still a serious deficiency. Fieldworkers do have a presence in the villages but there is considerable variance in their work efforts and the fieldworker's role has been narrowly focused. Physician training is severely hampered by lack of funds and BDG has made no provision for their transport and living costs during training. However, staffing problems of the Training Unit have improved and district training teams are in the field.

(f) The system of supervision is weak and emphasizes mechanical inspection rather than guidance, support, counseling and problem solving.

4. A number of experimental "beyond family planning" approaches are likely to be carried out. These include a bond scheme for sterilization acceptors and guaranteed employment in off-seasons for sterilization acceptors who are landless laborers. An area still needing major attention is that of female education at the secondary level. Increased emphasis of measures which are conducive to delaying marriages, increasing birth intervals and decreasing family size is vital.

5. Continued substantial donor assistance will be required if BDG is to achieve development and demographic goals. Current efforts through the multi-sectoral projects are of unequal value. Measures to combat rural unemployment, underemployment and illiteracy have also demanded a high proportion of investment. In the areas of social development, the government has set goals of Universal Primary Education by 1985, primary health care for all by the year 2000, and has set less precise goals for raising the status of women through education, training, and employment opportunities, as well as through changes in legislation. In the areas of social development, the IDA/Bank and UNICEF, as well as some bilateral donors, have made more substantial contributions than USAID.

PROJECT DESIGN & POLICY IMPLICATIONS. The factors critical to the success of the effort are numerous. Structurally, the repeated experimentation with integration versus vertical construction has served to divert the full attention of all levels of program staff from the essential task. USAID, and the larger donor community, must move from its neutral position on the question to one which insists that problems be speedily resolved so that the accomplishment of the goal becomes the main task. The numerous and persistent implementation problems, particularly those of training, program emphasis, field worker morale and commodity accountability, continue to threaten the program's viability and vitality, creating fundamental weaknesses in the delivery system. USAID needs to reassess its program emphasis with a view to broadening and diversifying its technical assistance package in areas of vital interest and to broadening its interests in sustaining effective programs conducive to "beyond family planning" and community participation considerations. Financially, USAID's policies of delayed reimbursements and lapse of unutilized funds create uncertainty and undermine morale at all levels. USAID should seek other ways to gain compliance with its regulatory needs and provide long-term guarantees of commitment to the population program.

RECOMMENDATIONS.

1. USAID should direct a greater portion of its assistance toward improvement in managerial capability and institution-building efforts including the areas of field worker and supervisor performance-based reward systems, decentralization, training, community participation and research.
2. USAID should urge BDG to address the resolution of administrative, structural, and financial problems between the Health and PCFP divisions, particularly waiving the hiring freeze, and itself should immediately address the major bottleneck regarding return of unspent funds at the end of the financial year.
3. USAID should assist BDG to revise the Supply Manual to incorporate the full range of MCH/FP supplies and equipment and provide a resident supply and logistics specialist for a minimum of two years to assist the PCFPD to gain control of this essential part of the program.
4. Both USAID and BDG should facilitate the contributions of NGOs to the program and seek to maximize their performance.
5. USAID should support the BDG's commitment to provide high quality services for family planning including sustained emphasis on the quality of VSC services and make every effort to assist the BDG to meet the precedent conditions.
6. USAID should place increased emphasis on effective programs conducive to delaying marriage, increasing birth intervals and decreasing family size including assisting in all necessary measures to keep girls in school longer.

This evaluation was conducted and written by Dr. Donald Minkler, Team Leader, Professor, OB-GYN and Reproductive Health Services, University of California/Berkeley; Dr. Julia Henderson, Consultant to UNFPA; Dr. Ruth Simmons, Asst. Professor, Dept. of Health Planning & Administration & Population Planning, University of Michigan; Mr. Jalaluddin Ahmed, Joint Secretary, PCFPD/BDG; Colonel Hashmat Ali, DG/Implementation, PCFPD/BDG; and Mr. Dallas Voran, Population Advisor, AID/Washington.

## PRIMARY HEALTH CARE I MID-TERM EVALUATION REPORT - BURMA

PROBLEM & OVERVIEW. In 1976, The Government of the Socialist Republic of the Union of Burma (SRUB), established the People's Health Plan which is a Primary Health Care and Basic Health Services Program designed to improve and protect the health of the 32 million Burmese. Implementation depends heavily on Burma's social traditions of religion and volunteerism. Although data on the health of the majority of Burmese is unavailable as nearly all statistics are gathered from large institutional facilities which treat only a small proportion of the people, the major health problems familiar to many developing nations are present here. The priorities of the PHP are (1) promoting preventive and curative services particularly control of communicable disease; (2) improving environmental health; (3) involving the community in identifying health problems and needs, and emphasizing use of local resources to solve these thereby encouraging self-reliance; (4) prioritizing MCH problems, immunizations and remedial services.

U.S. ASSISTANCE. This three-year Primary Health Care Project (PHC I) ( No. 482-002) was signed in August, 1980 and was designed to assist SRUB's Ministry of Public Health (MOPH) in three major areas: (1) commodity support: \$4,398,000 or (88%) of \$5 million grant; (2) participant training: \$300,000; and (3) technical assistance, \$148,000. Priority was given to accelerating the service delivery in 147 rural townships. Coverage by Community Health Workers (CHW) and Auxiliary Midwives (AMW) was to increase to 55% of all villages in these townships. Commodities (training kits, medical supplies and kits) were to be provided to Health Assistance Training Schools, AMWs, CHWs, and traditional birth attendants (let-thes). Technical assistance was provided in evaluation and research, nutrition research, curriculum and training development, and malaria assessment. Participant training included four long and seven short term opportunities. The World Health Organization (WHO) financed technical assistance and participant training; UNICEF provided commodity support and provided technical assistance. SRUB was responsible for administrative and personnel costs. The total collaborative effort was to result in the deployment of 14,000 CHWs, 4,600 AMWs, and 2,500 let-thes.

PURPOSE OF EVALUATION. This mid-term review took place after a year and a half of implementation activities. The major objective was to determine the degree implementation has adhered to the logical framework and assess whether the result is compatible with the structure and intent of the PHC I. A secondary objective was to assess the scope and direction of follow-on activities in the health sector should a decision between SRUB and AID/Washington be made to develop a second phase of this project. The team reviewed existing documentation, held meetings in Rangoon with SRUB and AID/Burma policy makers, program planners and administrators and made field visits to Rural Health Centers and villages where local government health personnel and volunteer health workers were interviewed. Interviews also were held with program beneficiaries. The sites selected for the field visits were not representative of the situation on a country-wide basis.

### FINDINGS.

1. The initial attempt to deploy a volunteer health worker service force has been successful. The service concept is oriented more towards curative than preventive function. Accurate quantitative data are not available to document this assessment and no true project impact analysis may be made at this juncture. However, in general, the quantitative targets appear to have been met and the assistance that PHC I was designed to provide has been commensurate with the model depicted in the Project Agreement.

2. The training and deployment of voluntary health workers has been progressing according to schedule and SRUB has met its requirements regarding quantitative placement of trained personnel. Technical assistance was provided on two occasions. The training effort is characterized by three problems: (1) lack of full-time trainers; (2) lack of adequate training materials; and (3) lack of systematic re-training and in-service training activities based on field observation of worker performance.

3. Supervision and management of voluntary health care workers is the weak link in the Basic Health Care system. Supervision is largely the responsibility of curative health personnel. This bias is reflected in the orientation provided to health workers, although the Project Paper conceived them as primarily preventive workers. Supervisory personnel have heavy curative work loads and are not trained or oriented in public health or preventive supervisory technique.

4. The deployment of the bulk of project commodities has not coincided with the deployment of trained field personnel. Although 95% of the commodity budget has been sub-obligated, only 17% has been actually spent (as of March 31, 1982). The supply of commodities, particularly medications and prescription drugs is problematic. There is a vital dependence on an over-extended procurement and supply system which has been characterized by management gaps and resupply difficulties. The prudence of supplying CHWs with prescription pharmaceuticals after only three weeks of training and the appropriateness of supplying preventive workers with curative materials is questionable.

5. The importance of nutrition as depicted in the project design is not reflected in the field activities of voluntary health workers. No comprehensive nutrition strategy has yet been articulated by SRUB. Technical assistance in developing protocols for two evaluation studies has been provided, however. A third is planned.

6. The greatest impact of the project has been on the improvement of maternal and infant care. The AMWs and let-thes are primarily responsible. However, the AMWs are unable to provide some vital commodities, information or commodities for family spacing purposes despite significant demand. As a result, high incidences of septic abortion are not being dealt with in a preventive manner.

7. The project's proposed solution to the quantitative and qualitative problems of national health sector data may be inappropriate. There are more pervasive and fundamental problems in the management information system than can be solved by a mini-computer.

8. Evaluation research is being conducted in parallel with project implementation but the studies undertaken to date will not provide adequate information on project impact. Technical assistance has been provided and the protocol for five assessments and studies has been completed.

9. Four long-term training participants have been selected and cleared by SRUB. Nominations for the seven short-term training slots are still pending from SRUB.

PROJECT DESIGN & POLICY IMPLICATIONS. The project has several critical aspects which carry policy ramifications. One main issue is the program bias towards the supply of curative pharmaceuticals and commodities which is inconsistent with the project's stated priorities and with those of SRUB. The long term goals of the PHC I are to be best served through the application of widespread preventive health measures. Another issue is the wisdom of fostering an intensive reliance on imported pharmaceuticals and commodities. Unless immediate efforts are made to strengthen indigenous productive capability, this reliance could become a critical liability. Only a third of the planned commodities actually have arrived in Rangoon. As a result, workers will feel increasingly ineffectual in their roles, may lose the respect of the program's beneficiaries and grow increasingly disillusioned with the program. There is a real possibility that appropriate adjustment to planning and implementation will not occur unless project implementation personnel are able to extract and use information from accurate evaluations.

## RECOMMENDATION.

1. SRUB and USAID should discuss giving higher priority to and improving the content of the training (pre-service and in-service) and continuing education of Voluntary Health Workers and to placing physicians on State/Division training teams. Current curricula and training materials should be re-evaluated and redesigned to improve the quality and content of various training sessions. Let-thes training should be continued at its accelerated pace.
2. It is recommended that SRUB explore new avenues of administrative authority with respect to supervisory activities of the Volunteer Health Workers. Strong preventive and participatory management biases in the provision of primary health care should be emphasized. The roles of the CHW and AMW should be clarified and their working relationships more precisely defined especially in the context of overlapping tasks and responsibilities.
3. SRUB and USAID should re-examine the present choice and mix of pharmaceuticals included in CHW kits in light of several factors including (1) cost effectiveness, (2) direct and long-term implication of uncontrolled or unwarranted application, (3) the degree to which the present mix detracts from preventive activities, and (4) the appropriateness of CHWs treating illnesses requiring penicillin and sulfa drugs when a referral system exists for that purpose.
4. SRUB should consider making alternative family planning services, devices and drugs available to program beneficiaries. Septic abortion is the leading cause of in-patient hospitalization.
5. AMW deployment should be accelerated wherever possible and qualified female CHWs should be allowed to enroll in AMW training activities in order to increase coverage.
6. SRUB, AID and other major donors should explore how the productive capacity of the Burmese Pharmaceutical Industry can be improved and how indigenous production may be institutionalized.

This evaluation was conducted by Henry Merrill, Team Leader, Burma Desk Officer, Asia Bureau, AID/W; Sharon Pines, ASIA/DP, AID/W and David Sahn, Consultant.

## EVALUATION SUMMARY OF THE INTEGRATED RURAL HEALTH AND POPULATION PROJECT - INDIA

**PROBLEM & OVERVIEW.** The Government of India (GOI), through the Ministry of Health and Family Welfare (MOH/FW) is attempting to provide for the basic health care needs of the bulk of India's 692 million people and curb the high rate of population growth through the national Model Health Plan. The Integrated Rural Health and Population Project (IRHP) is an accelerated implementation effort established in 13 districts of 5 states.

**U.S. ASSISTANCE.** USAID obligated \$40 million to support the IRHP project (No. 386-0468). The two major purposes which underlie USAID support are 1) to improve access to health and family planning services and 2) to improve and expand services and support systems. Overall, the goals of the project are to achieve a significant decline in the Crude Birth Rate, a decline of 15% in the Infant Mortality Rate and a decline of 20% in the Age 1-4 Mortality Rate. Analysis of fertility, infant and child mortality reduction data enabled USAID to identify 12 key family planning and health problems which are the focus of the project's efforts.

**PURPOSE OF EVALUATION.** The Project Agreement between the GOI and USAID stipulates that an Annual Review is to be held to assess current progress in each of the major areas which the project addresses. This evaluation constitutes the First Annual Review covering the period through March 31, 1982. The evaluation participants included officials from MOH/FW, from the five states in which the IRHP is being implemented, from other Indian institutions who have a role in the Project and USAID/India staff. A team of five outside consultants were also employed to assist in the review process.

### **FINDINGS.**

1. Progress in filling current vacant posts in existing health facilities is generally satisfactory in all states except Haryana. However, progress in filling Female Health Assistants (FHA) in Gujarat and Maharashtra as well as Haryana is less than satisfactory.
2. Progress in construction of new facilities and in improving existing facilities is generally less than expected in the Project Paper. New construction, overall, has progressed most satisfactorily in Himachal Pradesh; progress is modest in Punjab and Gujarat. There is no progress in Haryana and Maharashtra. It appears that delays in building plan approvals, site selection and availability of cement and steel have been overcome and construction should proceed rapidly.
3. Progress in the training of additional workers is excellent in Gujarat and Haryana, modest in Himachal Pradesh and undocumented in Maharashtra and Punjab. Recruitment of women as Female Multipurpose Workers (FMW) and Lady Health Visitors (LHV) is a problem in Himachal Pradesh and Maharashtra.
4. The Training Needs Assessment was developed successfully and completed in all states. Worker skills and knowledge need a great deal of improvement so they can offer quality service.
5. The current training capabilities of Primary Health Centers (PHC) and the Health Worker/Female and Male Training Schools are inadequate. Medical Officers at PHCs are overburdened, other staff lack suitable training and training materials are in short supply. Health Worker training schools have many unfilled post and severe staff shortages; trainers lack experience, skills and training in teaching. Severe shortages of printed materials in appropriate languages is another problem.
6. Communication emphasis is weighted on family planning target achievement. As no comparable targets exist for health services, less attention is given this area. Compensations in the form of cash, gifts and certificates are provided to acceptors and motivators for sterilization.

7. Progress in improving and expanding management support is almost non-existent. Only in Gujarat has an improved system been designed but is not yet in operation.

8. Evaluation and plan implementation technical cells at the state and district levels have not been staffed. This will affect the project's capability to carry out all planned baseline assessments, studies and analyses pertinent to impact and program problem identification. Funds have been available.

PROJECT DESIGN AND POLICY IMPLICATIONS. The project's design is well conceived but its successful implementation is constrained by (1) shortages of various personnel for authorized positions; (2) the lack of sufficient training capacity; (3) insufficient recruitment of females for both service delivery and supervisory positions in states with new construction; and (4) high vacancy rates in existing health facilities. The completion of the communications and management needs assessments is also of critical importance in terms of obtaining vital information for planning improvements. Current staffing deficiencies at the state and district levels are compounding this situation while state governments have resisted creating additional management and staff posts. If the project's second purpose of improvement and expansion of services is to be realized, the hiring of additional staff, as specified in the Project Agreement, is essential. State and District Health officials need policy orientation regarding expected project outputs. The procedures most useful for monitoring progress and documenting expenditures need to be made clear to them in order to maintain the integrity of the Project Agreement and to avert communication problems that might, if allowed to develop, generate a major policy dispute. High level contacts between USAID and GOI MOH officials might prove useful and allow USAID an opportunity to reassert U.S. policy in terms of results that impact on the project's intended beneficiaries.

#### RECOMMENDATIONS.

1. Priority should be given to filling crucial vacancies in existing health facilities (female health workers and assistants and training instructors), in the state and district project technical cells, and in routine training and construction monitoring. Where improved systems of routine monitoring are needed, action should be taken to establish adequate coverage immediately.

2. All states should reassess their required additional numbers of health workers in all categories based on 1985 (end of project) population projections to insure that adequate training capacity and trained cadres will be available.

3. The GOI and USAID should identify the areas which will require continuing technical assistance and technical/management training and agree on the kinds and timing of consultant inputs to meet these needs. Areas of apparent need include: training, communications and management technology; management and communications needs assessment; development of operations research strategies/proposals; personnel management; and monitoring and information systems.

4. Technical workshops should be organized to develop methodologies and action plans for the communications and management needs assessments and for the operations research component. USAID should identify and support appropriate seminars, workshops and courses to strengthen project staff skills in such areas as educational science, management and communications technology.

5. Discussions should begin immediately to consider the use of grant funds for technical assistance needs. This would be accomplished by diverting funds from slow-disbursing line items. Both Indian and American technical consultants would be utilized where appropriate.

This evaluation was prepared by Dr. John W. LeSar, Project Officer; John Rogosch, PSC Contract Manager; and John R. Westley, Chief, Program Office, USAID/India.



## MALARIA CONTROL PROJECT EVALUATION SUMMARY - INDIA

**PROBLEM & OVERVIEW.** A massive malaria epidemic swept India beginning in 1976/77 with the number of cases estimated at between 10 to 15 million per year. By 1978, the number of cases reported was over four million in spite of a major increase in financial and resource inputs. Malaria remains essentially a rural disease with eighty-five percent of the population living in rural areas. Urban areas also experienced increased incidences of malaria. The Government of India (GOI) assigns a high priority to malaria control as evidenced by its fiscal allocations which, since 1974, have amounted to 60 to 70% of the total public health outlay. However, program efforts have been hampered by limitations on the production of insecticides for use in the eradication program. The national program is coordinated and financed through the National Malaria Eradication Program (NMEP).

**U.S. ASSISTANCE.** A two-year Malaria Control Loan Agreement (No. 386-U-224) was signed on August 26, 1978 which provided \$28 million to the GOI to finance external source commodities (primarily the insecticides DDT and Malathion) to be used in the 1979 and 1980 operational programs of NMEP. On June 30, 1979, an amendment which provided an additional \$10 million was signed. This loan was planned as the first in a series of loans designed to cover insecticide shortfalls in the GOI malaria control commodity requirements from 1978-1983. The project purpose is to bring malaria under control, i.e. reduce the Annual Parasite Incidence (API) to 2 cases per 1000 population. In the Project Paper, 12 outputs were specified involving planning, training, community support, commodity procurement, spraying, environmental assessment, research, surveillance and alternative control method development components.

**PURPOSE OF EVALUATION.** The major purpose is to evaluate planned project objectives with program accomplishments through September, 1981. Basic data was derived from the reports of the annual GOI NMEP evaluation and from NMEP operation reports. An AID representative was present at two final report sessions of NMEP evaluation teams and the final reports of all 13 NMEP evaluation teams were reviewed. In addition, this evaluation includes data and information obtained from field trips and conferences by the USAID/I Malaria Consultant and the USAID Regional Malaria Advisor (RMA), particularly in Gujarat and Maharashtra states where U.S.-supplied insecticides were used. The background document used is the RMA's report "Epidemiological Analysis of the Impact of Malathion Spraying in The States of Gujarat and Maharashtra During 1980."

### **FINDINGS.**

1. A total of 5,945 tons of malathion and 14,450 tons of DDT were shipped under the loan. Also supplied were 46,029 lbs. of "Abate" larvicide. Under the amended loan, an additional 500 million tons of DDT were ordered and were expected to reach India by January or February, 1982.

2. All U.S.-supplied malathion was used in Gujarat and Maharashtra states and U.S.-supplied DDT was used in 11 states in 1980 and 1981 spray operations. Twenty-five hundred million tons of Malathion was sprayed in Gujarat and 3445 million tons in Maharashtra. There are no residual quantities of U.S.-supplied malathion left in India. DDT was sprayed in the states of Andhra Pradesh, Bihar, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Uttar Pradesh, Jammu, Punjab and Himachal Pradesh. DDT ordered but not yet received is to be sprayed in Madhya Pradesh, Bihar, Maharashtra and Orissa. About 25% of the "Abate" larvicidal technical material has been put into an emulsifiable concentrate by Hindustan Insecticide Ltd. and must be used within four to six months.

3. Twenty-two fog generators were supplied to NMEP under this loan. Many of the fogger units were used in urban spraying programs. Training of 65 operators and maintenance personnel for these sprayers was carried out by a company representative. Training of 2,500 persons in safe insecticide handling has been accomplished. Education materials have been developed. No serious case of malathion intoxication occurred in the 1980 and 1981 spray programs in Gujarat and Maharashtra States.

4. The arrival of USAID loan source commodities was delayed for over a year after the signing of the Loan Agreement. This delay was primarily caused by differences between USAID and GOI technical specifications for malathion, packaging of malathion, and inspection and warranty requirements. These problems were eventually resolved through negotiations between a USAID-appointed consultant and the GOI.

5. A GOI policy decision to transfer 50% of the cost of malaria control insecticides to the states resulted in a decreased demand for malathion and significant reductions in spray operations. In 1980, due to this policy change, 16 to 17 million people in Gujarat state alone were left out of residual spray protection of the planned malaria control program.

6. The NMEP has reported development of malathion resistance on a wide geographic scale since 1978. This may be due to increasing malathion resistance among mosquito populations, a situation encouraged in part by incomplete operational (spraying) coverage.

7. An Environmental Assessment was written and approved by AID/W in July, 1980. This document, prepared by the RMA, concluded that the application of U.S.-supplied residual insecticides has no significant adverse impact on the environment.

8. GOI continues to assign a high priority to malaria control. A Modified Plan of Operations has been approved by GOI as a policy guide for the States' Malaria Control efforts. However, since health is a state responsibility, adherence to the Plan has varied.

9. Malaria levels should be brought under control over the life of the project. For India as a whole, the API of 2 has not been reached. However, some areas have met this criteria. It is difficult to assess the epidemiological impact of the AID insecticide inputs as these are only a portion of the total amounts used and as most of the material was used in only one operational year. Of the 11 states provided U.S.-supplied DDT, seven reported an improvement in malaria incidence from 1979 to 1980. In Gujarat and Maharashtra, marginal reductions were registered.

PROJECT DESIGN & POLICY IMPLICATIONS. The project's stated purpose is to reduce malaria to a manageable control level (API=2); however, the USAID contribution is less than 14% of the total program cost. Moreover, the project design does not stipulate precise objectives as to incidence reduction per area where U.S.-supplied commodities were to have been sprayed. Thus, it is unrealistic to expect this project to significantly effect the reduction of malaria levels over the two operational years that it covers. The project did assist the GOI to reduce incidence in areas that did receive coverage with U.S.-supplied insecticides and the overall malaria situation did improve from the 1979 level of 3 million cases to an estimated 2.3 million (provisional) in 1980. Two other factors impacted on the success of the project. One was the delay in procurement attributable to different standards of insecticide specifications, their packaging, warranty and inspection. This delay might have been averted if thorough attention had been given to this basic consideration by USAID/I and USAID/RMA personnel in the design phase. The other factor was external and stemmed from a GOI policy change related to financing for support of many health programs among which was the malaria control program. As a result, many states could not afford spray operations at recommended levels. This change was not in accord with GOI/USG understandings at the time the project was approved.

RECOMMENDATIONS.

1. Monitoring of the progress of formulating technical "Abate" and using this material in field programs is required.
2. Response to audit recommendations made in the Malaria Audit Report #5-386-81-15 dated August 17, 1981 is required.
3. Follow-up action and field visits regarding the receipt, distribution and end-use of the second procurement of 4450 million tons of DDT, the 500 million tons of DDT procured under the additional loan amendment, and the 10 fog generators and associated spare parts is required.

This evaluation was prepared by Dr. John LeSar, Chief of Health, Population, Nutrition, USAID/I; Mr. John R. Westley, Program Officer, USAID/I; Dr. P. Diesh, Malaria Consultant, USAID/I; and Mr. Larry Cowper, Regional Malaria Advisor, USAID/I.

## EVALUATION OF THE COMPREHENSIVE REHABILITATION FOR THE DISABLED AND BLIND PROJECT - NEPAL

### PROBLEM & OVERVIEW.

Recently, the Government of Nepal (HMG/N) has made efforts to provide resources to programs which benefit the Kingdom's disadvantaged and handicapped subjects among whom are the disabled and blind. However, Nepal's local resources are very limited. Economic and physical development goals compete for top priority and command large amounts of these local resources. To accomplish less visible aims, particularly ones that do not impact on a broad strata of the society, HMG/N has turned increasingly to a host of international private sector voluntary organizations (PVO) to obtain the kind of assistance which the Kingdom lacks and which bilateral assistance agencies are not structurally capable of addressing. These agencies tend to be more amenable to tailoring the desired response to the goals of the unique institutions and are more flexible in administering and implementing innovative programs, although funding is often still derived from the public or governmental sector of the donor's origin.

### U.S. ASSISTANCE.

In August, 1979, USAID/Nepal and AID/W approved a three-year, \$360,000 project (No. 498-0251) which the National Disabled and Blind Association (NDBA) of Nepal and the U.S.-based PVO the International Human Assistance Program (IHAP) had designed. Project objectives called for improving the administrative capacity of, strengthening general education and vocational training capabilities of, and establishing health care and rehabilitation programs within the NDBA and its primary center at Jorpati, Nepal.

### PURPOSE OF EVALUATION.

The purpose was to review project accomplishments, acknowledge and discuss issues which have been identified and presented in the USAID Issues Paper and develop an understanding of NDBA's emergent policy perspective and strategic framework for the future. This process requires an extensive review of all available documentation and should establish a basis for a decision regarding the future dispensation of the project and of IHAP's role as the Operations Program Grant operator and AID grantee. This was the first annual evaluation of the project.

### FINDINGS.

1. It appears that the IHAP Project has had a large and favorable impact in helping NDBA to formulate its policy parameters. The NDBA considers that the IHAP concept of bringing the various elements of NDBA together and of improving the various programs -social, health, education- has provided a framework for development of a strategic plan. Many NDBA policies are still evolving. When the project was written, the NDBA was relatively new and while many Board Members had ideas of what the organization wanted to do, there was no comprehensive overview.
2. The IHAP/Nepal Project Advisor has successfully negotiated and established a channel for the flow of funds from IHAP to the NDBA despite initial difficulties. This appears to have been a pioneering effort, one now used by other Private Voluntary Organizations working in Nepal with the Social Services National Coordinating Committee (SSNCC).
3. The links between the several obvious project accomplishments (construction, training) and the goals of strengthening general education and vocational training and establishing health care and social rehabilitation programs need definition and documentation.

PROJECT DESIGN & POLICY IMPLICATIONS. The effort expended by the IHAP Project Advisor to establish a flow of project funds satisfactory to IHAP/New York, AID and HMG/N's Social Services National Coordination Council seriously delayed project implementation. Although this problem could not have been foreseen in its entirety during the project design phase, its resolution was prerequisite to initiating project implementation. It was also duplicative, to some extent, of agreements established earlier with SSNCC by other international PVOs. In an effort to streamline decision-making, USAID/Nepal requested AID/W to transfer project responsibility to the Mission. AID/W also requested IHAP/New York to delegate decision-making related to implementation issues and financial administration to the IHAP Project Advisor. It is still unclear whether and to what extent authority has been transferred to the IHAP Project Advisor, a situation which is somewhat confusing and results in less than 100% of the Advisor's time and effort being spent on achieving project objectives. Since this project is IHAP's first OPG in Nepal, it is understandable that IHAP/New York would move cautiously to delegate authority to untried field staff and it is not a factor that could have been foreseen in the project design phase. However, it can be hoped that IHAP will resolve this issue in the near future. There are indications that the NDBA Board of Directors is thinking in terms of seeking IHAP assistance in expanding beyond the current project site to three satellite facilities in other areas of Nepal. Establishment of these new centers would require technical assistance similar to that which IHAP is currently providing. Serious thought should be given by AID, IHAP and NDBA as to the feasibility of expansion at this time. For AID, the chief consideration is whether the current performance of IHAP warrants an increased investment, and, if so, whether this should be in the form of an extended OPG or whether a new agreement should be sought. For IHAP, the chief consideration is whether the current Project Advisor is technically and administratively equipped to handle the increased load such a project would demand, particularly in that he is already partly responsible for IHAP's other OPG project located in a remote area of Nepal, or whether additional staff would be required. For NDBA, the chief consideration is the several weaknesses apparent in the quality of local project administration and the capability of the Board of Directors to oversee and ensure compliance with routine reporting and accountability requirements that AID grants demand.

#### RECOMMENDATIONS.

1. The NDBA Board of Directors should complete its overall revision of Board policy concerning the operation and scope of activities for the NDBA.
2. AID should review with IHAP whether the August 1979 Grant Agreement needs modification in view of recent NDBA policy changes.
3. IHAP should share reporting documents directly with AID Nepal as stipulated in the Grant Agreement.
4. A closer working relationship should be developed between IHAP/Kathmandu and USAID/Nepal.
5. A review of the IHAP project should be held as regards further dispensation of the project as soon as AID is able to review full project documentation.
6. AID should review with IHAP the NDBA Board of Director's recommendation that a more experienced Chief Administrative Officer is required for the project.
7. AID should review with IHAP the implications of the NDBA Board of Director's decision to expand enrollment of the Khagendra Life Center from 125 to 200 resident patients.

Participants in this evaluation were Dr. J.R. Pandey, of NDBA; A. Taylor and P.J. Fenney, IHAP; T. Rose, D. Mutchler, D. Pickett, Dr. G. van der Vlugt, S. Anderson, M.R. Sharma, P. Morris, J. Ryan, R.C. Shrestha and W. Nance of USAID/Nepal.

## EVALUATION OF THE CONTRACEPTIVE RETAIL SALES PROJECT - NEPAL

**PROBLEM & OVERVIEW.** The social marketing of contraceptives approach to family planning has been tried with varying degrees of success in several developing countries. The techniques and infrastructure of the commercial sector are used to broaden population programs and attract new users to family planning. The availability, distribution, promotion and use of oral contraceptives and condoms is increased through subsidized sales at existing retail outlets. As a social program, it is not designed to compete with the commercial sector but to reach people and develop markets which are not commercially viable for the private sector at the time of intervention. The Government of Nepal (HMG/N) has recognized the critical problem of the country's high population growth rate and has successfully sought assistance from the donor community to design, implement and support the funding of a number of family planning, maternal child health care, and primary health care programs. Based on a need to expand availability and desensitize the use of contraceptives and recognizing the relative success of the social marketing of contraceptives in neighboring countries, HMG/N approved the development of a Contraceptive Retail Sales (CRS) Project, in 1972.

**U.S. ASSISTANCE.** A three year contract for a social marketing project, funded by AID/Washington, was signed on June 30, 1976 with Westinghouse Health Systems (No. DS/POP/FPSD DPE-0611-C-00-1001-00). The Family Planning and Maternal Child Healthcare (FP/MCH) Project is the implementing agency. The project was formally launched on May 31, 1978. The major task was "to design a system for the commercial distribution of contraceptives and to establish a (nearly self-supporting) distribution system in order to significantly increase the commercial availability of contraceptives and to reach the majority of urban and rural fertile-age couples in Nepal." Two products were introduced: Gulaf oral contraceptive (OC) tablets (Noriday 1+50 28 day cycle); and Dhal condoms (colored, lubricated, 49 mm). A third product, Suki-Dhaal, a 49-mm transparent, lubricated condom, was introduced in 1980. The original three year contract has been extended 4 times. The initial extension was from July 1 to October 31, 1979; a second extension to October 30, 1980; a third to December 31, 1980; and a fourth to October 31, 1982. There were no changes in the project's objectives in the first three extensions. Important changes were incorporated in the fourth extension. In this extension the contractor was to develop and implement marketing plans to increase sales by at least 30% and achieve a cost per couple years of protection (CYP) of US \$10 or less inclusive of all program and commodity costs except for the contractor's fixed costs. It was also to introduce oral rehydration salts (ORS) and two new contraceptive products: Kamal, a vaginal spermicide and Nilocon, a low dose OC.

**PURPOSE OF EVALUATION.** The purpose of the 1982 evaluation was to review and examine the project's achievements in relation to stated contract objectives, contraceptive product development, pricing structure decisions, distribution strategies, promotion and advertizing, training and management and administrative functions. Relevant documents were reviewed, key individuals involved in family planning programs in Nepal were contacted including HMG/N, USAID, advertizing agency, product dealers, merchants and voluntary agencies at the central and district levels were contacted and field trips were conducted. The team did not interview consumers and potential consumers. The project was evaluated on at least two previous occasions. The first took place six months after implementation. This report suggested that Nepal was an extremely difficult environment in which to strive for a self-sustaining marketing program. In 1980, consultants of the American Public Health Association (APHA) conducted an evaluation. This evaluation reached the same conclusion. Based on the APHA evaluation, the project received its fourth extension. Although never officially changed, the self-supporting goal appears to have been replaced in the 1981-82 extension by the CYP of \$10 objective.

## FINDINGS.

1. The CRS project appears to have met most of the 1976 objectives and is making an important contribution to HMG/N's family planning program. CRS sales in 1980-81 accounted for 22% of all condoms and 14% of OCs distributed by HMG, CRS, and the Family Planning Association of Nepal. It has significantly increased the commercial availability of contraceptives, now sold in almost 6000 outlets. It has helped to strengthen the commercial distribution and advertising sectors and to desensitize the public. The objective of reaching the majority of the country's fertile couples has not been reached. In view of the overwhelming numbers of isolated, inaccessible rural residents, the rural component was unattainable.
2. Expansion into more inaccessible rural areas where market demand for CRS products has not yet been established is extremely costly and time consuming. Although contract objectives and HMG programs have formed the basis for CRS experiments to move products into these new areas, efforts towards consolidating distribution and improving sales in already established CRS markets have been sacrificed at times to this newer priority.
3. Suki-Dhaal has not been a very successful product but there may be a need for a quality packaged, higher-priced, 52-mm condom. Overpackaging is an important product attribute and represents a relatively small proportion of local CRS expenditures.
4. CRS has done little market or product pricing research. Many marketing decisions would be better supported if more and better research was done. There are a number of unanswered questions about whether consumer prices established for CRS products are optimal for growth in sales or politically acceptable for a social program.
5. Successful encouragement of dealers to "push" products has not materialized. Retailers in both general and medicine stores do not seem to have an adequate understanding of CRS products. Despite generous profit margins and personal discussions with dealers, traditional Nepali business practices appear to be unadaptable to active selling by dealers. However, information pertinent to the use and possible side effects of Gulaf and the two new products is important to establishing demand.
6. CRS appears to have established excellent relationships with appropriate host-country government officials. The CRS project does not appear to be viewed as a competitive effort with other public and voluntary family planning efforts. There was almost unanimous consensus among those interviewed and knowledgeable about the project that it should continue as part of the government population effort.
7. Of the 1981-82 objectives, one has been achieved, the second is apparently not achievable by the end of the contract period, and the third not met by agreement between HMG/N, USAID, AID and CRS. A 30% increase in sales per year in terms of CYP was exceeded. A cost per CYP of \$10 or less during 1982 may not be achievable. The third objective, introduction of ORS by the end of 1981, has been deleted by mutual consent.

PROJECT DESIGN & POLICY IMPLICATIONS. Given the enormous physical, social, political and cultural difficulties of establishing a social marketing system in a country lacking even rudimentary communication, advertizing and commercial distribution infrastructure, the degree to which the CRS project has succeeded is testimony to the sound strategy and tactical approaches tried and to the leadership, management and cooperation among the host authorities, the funding source, the implementing agency and its advisory counterpart. The critical weaknesses were not in the project's design but in the quality of local leadership and management talent that could be attracted to the project and bring innovative ideas to bear to overcome the known obstacles. It is normal to experience false starts and to make mistakes. The trick, which this project seems to have mastered,

is to recover from the mistakes. To institutionalize the CRS project is a major objective. Decisions about the structure and functioning of CRS when and if it does incorporate will have a strong influence on the future success of the concept. While the experiences of other countries, (Nigeria, Egypt, Sri Lanka, Bangladesh, India) provide some insight to possible solutions and outcomes, Nepal is unique. HMG/N must make a major policy decision if it is to accept the optimal alternative recommended. The historical lesson from these and other social marketing projects is that governments, which by nature are more bureaucratic, find that inclusion of such business-oriented projects conflict with their normal program and management styles.

#### RECOMMENDATIONS.

1. The Evaluation Team recommends that the CRS Project be continued. The present contract should be extended for up to but no more than 9 months, or until August 1, 1983.
2. A private-sector, not-for-profit company should be incorporated in Nepal for the express purpose of managing the CRS social marketing project. A decision from HMG should come no later than September 1, 1982.
3. CRS should not expand now to areas inaccessible by roads or by air. The project should concentrate on building the present market and opening new, more easily reached towns, bazaars and weekly markets.
4. CRS should sell out present supplies of Suki-Dhaal through the same distribution and sales system as other CRS products and no new supplies of this product should be ordered.
5. CRS should launch Kamal and Gulaf products and introduce a higher-priced 52 mm condom if research demonstrates there is sufficient consumer market and condom breakage is a real problem. (Uncommitted CRS funds should be used for product launch promotional activities and follow up research.)
6. CRS should study the consumer pricing of all products. The present prices for common consumer goods, inflationary trends, and consumer/retailer surveys should form the basis for decision of CRS products.
7. CRS should plan for regular visits by Sales Representatives to local Panchayat officials and other community leaders in order to build support for CRS and its products.

This evaluation was performed by Diana Altman, Team Leader; Bimila Shrestha, M.D., Deputy Team Leader, New Era; Maya Shrestha, FP/MCH Project, IEC Division; Ram Chandra Shrestha, Program Office, USAID/N; and Gladys Gilbert, Health and Family Planning Office, USAID/N.



## EVALUATION OF THE FP/MCH PROJECT'S PANCHAYAT BASED HEALTH WORKERS - NEPAL

PROBLEM & OVERVIEW. Family planning and maternal child health care services were first made officially available in Nepal in 1968 with the establishment of the Nepal Family Planning and Maternal Child Health Board. The purpose of this Board was to take measures to reduce the crude birth rate and to provide maternal and child health services in an organized manner throughout the country. This was the start of the provision of family planning services as part of over-all population policy. Nepal has one of Asia's highest infant mortality rates and birth rates. The population is located in rural communities dispersed over hilly and mountainous terrain largely inaccessible by motorized transport. Thus, the maintenance and staffing of static health clinics or subclinics was found inadequate. In 1972, the Board decided to implement the Family Planning/Maternal Child Health Care (FP/MCH) project using the concept of mobile health workers. Experimental activities were initiated in two pilot areas and evaluated after 2 1/2 years. Based on the demonstrable superior achievement of the mobile worker, two more pilot program areas were selected in 1976.

U.S. ASSISTANCE. USAID assistance began in 1978 when the evidence of the four experimental projects resulted in a change in government of Nepal (HMG) policy away from a static, clinic-based system of service delivery. The current (1981) program involves 1172 Panchayat Based Health Workers (PBHWs) who provide family planning information and materials (oral contraceptives and condoms; information about voluntary surgical contraception, particularly vasectomy) and maternal and child health services on a door-to-door basis in 44 of Nepal's 75 districts. [Note: this evaluation report does not indicate the actual USAID project no., the date of USAID's PID nor the PACO. No indication is given of the total dollar amount authorized nor the duration of USAID's commitment. Section XIII provides information on the program costs for two Nepalese fiscal years only, i.e. July 16, 1979 to July 15, 1981 Expenditures are shown in rupees and no exchange rates are indicated.]

PURPOSE OF EVALUATION. The objectives of this study were to provide an assessment of the program's performance to date, its operational effectiveness and the impact of PBHWs' accomplishments against HMG's stated objective to provide basic MCH information and services and to act as motivators for family planning. A further purpose of the study was to make an evaluation and identify problem areas in PBHW performance and in the service delivery system. Data for this study was obtained through structured questionnaires administered to project staff and program beneficiaries. PBHW records and supplies were examined. Interviews were held with USAID, FP/MCH and other HMG departmental officials concerned with the project. Field visits were conducted in 43 of the project's 44 operational districts. Thirty-seven Family Planning Officers, 119 Intermediate Supervisors, 195 PBHWs and 2,838 community respondents were interviewed.

### FINDINGS.

1. 1172 PBHWs currently provide services in 44 districts in 13 of the 14 zones into which Nepal is divided. 131 PBHWs are paid according to HMG rules and their conditions of employment differ from those of the majority of their colleagues who are employed on a year-to-year contract basis. This dual standard of employment poses job security and motivational problems.

2. The relationship between the PBHW's job description and the training curriculum is vague. Although the vast majority of PBHWs were able to cite almost all aspects of their work, serious gaps in their knowledge were apparent. The present job description does not elaborate the specific activities in sufficient detail to act as a guide for the daily work schedule. The training curriculum does not indicate the extent of content to be covered in the teaching. Teaching aids are not used. The operational manual used is out-dated. Some of the PBHWs are barely literate and have specialized training needs.

3. It is difficult to assess the overall standard of training. Due to a shortage of manpower within the Training Division and because of the need felt for teaching by experts on particular subjects, guest trainers (doctors, FPOs, staff nurses, auxiliary nurse-midwives) are frequently used. Few of these are specifically oriented to the training needs of the PBHWs.

4. The sex and age characteristics of the PBHWs, taken in the context of the Nepalese society, create problems in terms of the program thrust to persuade women to become oral contraceptors and to deliver MCH care services. Only 18% of the PBHWs (sample) are female; 50% of the total are between the ages of 15 and 24 and 42% between 25 and 34.

5. The number of PBHWs trained in the last year is short of the target set by the FP/MCH project. In FY 1979-80, 511 PBHWs, or 93% of the target, were trained; in FY 1980-81, 281 PBHWs, or 47% of the target, were trained. Difficulty in recruiting qualified candidates is cited as one reason for this shortfall.

6. The PBHWs are not fulfilling the official goal of recruiting five continuing acceptors per month. In order to meet the goals, PBHWs need to recruit 15 new acceptors per month (this assumes a discontinuation rate of 66%.) Traditional reliance on large families, unreliable supply of contraceptives and old stocks of condoms, fears about side effects of oral contraceptives, of the effects on male sex drive of vasectomy, and infection after tubectomy are factors.

7. The overall performance of anemia and rehydration services was poor, especially in the Eastern and Far Western regions. This is partly explained by shortages in the supply of iron tablets and rehydration solution. More females than males knew the correct method although less than 50% of all PBHWs knew the correct method overall. About 67% knew how to prepare oral rehydration solution (ORS). Again knowledge was higher among female respondents.

8. The chain of command and supervision system appears to be working satisfactorily although record keeping appears to be a widespread problem. Only 28% had up-to-date, complete Ward Registers and 35% had properly maintained diaries.

10. The supply of commodities is one of the most problematic areas of the program. There appears to be a shortage of many items. Twenty-five percent reported difficulties due to lack of pills and condoms. Supplies were found in poor condition due to poor storage. Six percent had no OCs on hand; 22% had no condoms; 80% had no ORS supplies; 90% had no iron tablets. Only 50% had APC (aspirin) tablets, Piprazine and Vitamin A and D.

PROJECT DESIGN & POLICY IMPLICATIONS. In general, the project's mobile worker concept and design continues to demonstrate, on a national level, a viable alternative to the concept of static-based clinical provision of family planning and maternal child health care services in a widely dispersed, rural setting. Thus it better serves Nepal's unique needs. However, project effectiveness is constrained by several complex and critical factors which, if not redressed and remedied, will affect the utility of the project. These include 1) identifying and selecting more female PBHWs, 2) revamping and restructuring the training component and reassessing follow-up training requirements; 3) re-evaluating job descriptions in terms of the number of PBHWs assigned to a panchayat area as being dependent upon the physical characteristics of the territory and its number of eligible couples; 4) modifying and upgrading the system of supervision; 5) addressing adequately the problem of commodity supply. The project needs additional financial support and a long-term policy commitment from USAID to move beyond its present status as a successful, national scale demonstration project.

## RECOMMENDATIONS.

1. The responsibility for recruiting PBHWs should be transferred to the panchayat, vacancies widely publicized and new workers elected by panchayat members. Panchayat officials should receive a short course on the broad aims of the project and the duties of the PBHWs.
2. Some form of refresher training should be given to PBHWs and Intermediate Supervisors annually or every two years and a new operational manual should be developed with instructions on proper introduction to and use of oral contraceptives, weaning food and oral rehydration solution emphasized and depicted in such a manner that is comprehensible to barely literate adults. Instructions on record-keeping should also be given emphasis.
3. PBHW job descriptions should be made realistic in terms of coverage and frequency of visits. Mapping in terms of distance and time to the major communities (wards) located within the panchayat area should be established. PBHWs should be instructed and supervised according to visit routines based on the number of eligible couples in each ward. The community should be encouraged to take part in the supervision of workers to ensure that PBHWs visit all wards or communities.
4. Supervisors should operate on a rotating basis, visiting a different part of the district every two or three months and the PBHW under their supervision once a week. They should be instructed to deliver supplies from the District Office to the PBHWs. The District Office (FPO) should meet with all staff working in the district every three months.
5. The logistics and supply system should be reviewed, bottlenecks and supply problems identified and action initiated to ensure that all PBHWs receive the basic supplies required.
6. It is recommended that a cell be formed within the Service Division of the FP/MCH project which would coordinate all aspects of the PBHW program.

This evaluation was performed and written by NEW ERA and its research team of 31 individuals led by Ashoke Shrestha, Project Director and Lindsay Brown, Project Associate. Saroj Bhattarai and Dilli Bhattarai acted as Research Officers.

## EVALUATION REPORT OF THE IHAP VOLUNTEER VILLAGE HEALTH WORKERS PROJECT - JUMLA, NEPAL

PROBLEM & OVERVIEW. Nepal's remote Far Western Zone has been targeted by His Majesty's Government (HMG/N) as a priority area to which developmental efforts and resources are to be extended. Accessible from Kathmandu, the capital, only by air during the dry season, the provision of basic government services has proved difficult for HMG/N. Thus, the community of donors has been increasingly involved in assisting HMG/N implement supplemental programs designed to augment the government's infrastructure. Extending primary and maternal child health care benefits and family planning services to the population of the Jumla District is one subgoal within the larger strategic framework.

U.S. ASSISTANCE. On August 30, 1979, AID/Washington signed a three-year, \$498,000 grant agreement (No. 498-0251) with the International Human Assistance Programs, Inc. (IHAP). The purpose of this grant was to permit IHAP to conduct a project in coordination with the Nepal Red Cross Society (NRCS) to establish a primary (mainly preventive) health care delivery system using local health workers. This system would be linked eventually to HMG/N's Ministry of Health delivery system. Five major objectives were identified as essential to achieving the goal. IHAP was to provide a long-term, project site resident technician and provide him with administrative and logistical support through its long-term resident representative in Kathmandu. The Johns Hopkins University was also to participate through a subgrant to IHAP. Johns Hopkins short-term consultants were to implement the first two objectives of conducting a baseline data health survey and establishing a community dialogue activity that would provide a framework for community participation.

PURPOSE OF EVALUATION. This is the first annual evaluation of the project. Its purpose is to review accomplishments to date and to determine what progress has been made toward meeting the project's objectives. The evaluation took place on February 12, 1982. An Issues Paper was prepared and circulated prior to the evaluation meeting.

### FINDINGS.

1. The baseline survey for Jumla District has been completed. The data is being processed by the Institute of Medicine, Kathmandu, with assistance from Johns Hopkins consultants.
2. Community dialogue activities have been conducted in 12 of the districts 24 panchayats.
3. Forty-six Village Volunteer Health Workers (VVHW)/Community Health Leaders (CHL) have been trained through Phase I of a three-phase training program.
4. One hundred and seventeen of the planned 120 Health Committee personnel have been trained. This core group is considered essential to the basic infrastructure necessary to establish a village health care delivery system.
5. Construction and renovation work has started on the model health post and the training center in Jumla.
6. The project has been under implementation for only 16 months, although the grant is in its third year. A major delay in project implementation was resolved one year after the signing of the agreement with the appointment of an IHAP Technical Advisor for Jumla.
7. The original project proposal remains in effect. The original Project Proposal was considered outdated by the Technical Advisor and 60 different changes were proposed. None of these involved changes in the original objectives, most were tactical and no change in the overall fiscal authorization was attempted. However, these field-recommended changes were never incorporated into a single comprehensive document nor forwarded to AID/W by IHAP/New York.

PROJECT DESIGN & POLICY IMPLICATIONS. The chief problem now faced by USAID/Nepal and IHAP/Nepal is the continuing confusion about the state of the recommended changes. The absence of a revised document is causing some delays in project implementation as well. Whereas AID/W adopted the recommendation of USAID/Nepal regarding the shifting of overall monitoring authority from AID/W to USAID/Nepal, IHAP/New York has yet to convey to USAID/Nepal a revised project proposal reflecting the changes that have been under discussion for the past 15 months. Neither USAID/Nepal nor IHAP/Kathmandu has been able to determine how much of the project funds have been disbursed and for what purposes. The need to reconcile financial disbursement records and to work out procedures for handling future disbursements of funds is a priority task. IHAP/Nepal has also not been providing USAID/Nepal with copies of its regular reports which is contrary to the requirements stipulated in the Grant Agreement. The IHAP Technical Advisor and the NRCS support a change in the Grant Agreement relative to the provision of administrative support for the Jumla project. Their recommendation would remove this responsibility from the IHAP/Kathmandu advisor to the Nepal Disabled and Blind Association and place it on a full-time administrative person specifically hired for this purpose.

RECOMMENDATIONS.

1. Immediately revise the original project proposal to reflect IHAP/NRSC and USAID/Nepal discussions regarding changes in elements of the project and attendant budget adjustments.
2. Immediately clarify funding questions regarding the amount of the grant which IHAP has disbursed to date and resolve how future disbursements will be handled.
3. IHAP/New York should clarify what authority has been or is being transferred from IHAP/New York to IHAP/Kathmandu for purposes of project implementation.
4. IHAP should share reporting documents (quarterly, annual) with USAID/Nepal as required by the Grant Agreement.
5. USAID/Nepal should review pertinent documentation, resolve the question of the balance of grant funds and hold discussions with IHAP/New York personnel prior to making a determination about extension of the project beyond the present August, 1982 termination date.
6. USAID/Nepal, IHAP and the Nepal Red Cross should discuss and decide the best approach to providing administrative support to the project.
7. IHAP and the NRSC should continue their dialogue with HMG/N's Ministry of Health regarding the latter's eventual assumption of the primary health care delivery system being established under this project.

This evaluation was conducted by Mr. Onta, Miss Ragin, Mr. S.B. Rai, Mr. J.S. Thapa, Mr. T. Ganai, Ms. T.K. Gurung, and Ms. R. Giri of the Nepal Red Cross; Mr. P.J. Fenney, Mr. A. Taylor and Ms. S. Schuler of IHAP; Dr. M. Thorne of John Snow, Inc.; Mr. T. Rose, Dr. G. van der Vlugt, Ms. S. Anderson, Mr. M.R. Sharma, Mr. S. Freundlich, Mr. P. D. Morris, Mr. J. Ryan, Mr. R.C. Shrestha and Mr. W. Nance, of USAID/Nepal.

## EVALUATION REPORT OF THE INTEGRATED RURAL HEALTH/FAMILY PLANNING SERVICES PROJECT - NEPAL

**PROBLEM & OVERVIEW.** Nepal is one of the world's poorest nations with a population of 15 million, over 90% of whom are illiterate and reside in inaccessible rural areas. Rapid population growth, decreasing agricultural yields, one of the highest infant mortality rates in Asia, high prevalence of intestinal and respiratory diseases and a resurgence of malaria are among the principal causes of rural poverty and high morbidity and mortality among the population. The Government of Nepal (HMG/N), as part of its broad strategy of development, has sought to establish an integrated public health system to meet the underserved and unserved health needs of the Nepalese. The integrated public health system involves delivering effective rural health services (primary health care), family planning services and (re)establishing an effective malaria control program.

**U.S. ASSISTANCE.** The purpose of the Integrated Rural Health/Family Planning Services Project (IRH/FPS) is to assist HMG/N in developing viable health and family planning delivery systems. The IRH/FPS Project Grant Agreement, (No. 367-0135), signed on August 31, 1980, stipulated a total investment of \$104.3 million of which AID's contribution is \$34.2 million over a five year period. The project has two components, technical assistance and construction. The general objectives of the program include providing technical assistance to HMG/N Ministry of Health (MOH) in establishing an effective delivery system of rural health and family planning services, and establishing a malaria control program. The construction component includes building ten complete and rehabilitating 20 existing Health Posts, building two District Health Centers and two Voluntary Surgical Contraception (VSC) Centers, building three Regional Warehouses and renovating the Central Teku warehouse. John Snow, Inc., of Boston, was contracted to provide the necessary technical assistance to HMG/N for the five-year life of the project. The IRH/FPS project is a follow-on to three AID assisted projects and overlaps to some extent with two of these: the Integrated Health Services and the Population/Family Planning projects.

**PURPOSE OF EVALUATION.** To assess the progress of IRH/FPS and identify implementation problems, an Issues Paper was circulated to the MOH and USAID staff. A conference was then held on October 22, 1981 at which a large number of HMG/N and USAID staff attended. The Issues Paper served as the basis of discussions and the evaluation. This is the first joint annual evaluation of the IRH/FPS Project.

### **FINDINGS.**

1. **The Project is four to six months behind schedule.** The late signing of the Technical Assistance contract and the consequential delayed arrival of the contractor's advisory team has delayed initiation of TA activities related to Logistics and Health Planning. The Project's Chief of Staff was absent for six months creating a leadership problem. The Site Selection Criteria for selecting construction sites for the project has not received HMG/N approval.
2. **Integration of FP/MCH activities with the IRH/FPS program has not been implemented in the 23 districts as was scheduled.** Instead, all FP/MCH workers have either been withdrawn or dismissed. Yet more participants are being trained by the FP/MCH Project than by IRH/FPS.
3. **The plan to have the Royal Drug Company supply the basic drugs for the project has not been implemented.** This is due to a U.S. statutory regulation requiring a waiver for non-U.S. source procurement and questions concerning Royal Drug's production capabilities. A working group has been established to develop acceptable solutions to questions of increased production, work standards and quality control.
4. **The effectiveness of the Panchayat Based Health Workers (PBHW) is less than optimal.** Improved recruitment standards, revised training content, production of a training manual, and initiating periodic refresher training courses are issues needing attention.

5. A second application of insecticide spraying for malaria control in the integrated districts has not been implemented. Lack of budget, functional equipment and transportation problems are cited as reasons. There appears to be a lack of advance planning and coordination between IRH/FPS and National Malaria Eradication Office (NMEO) personnel at the central as well as field levels.

6. The Integrated Health Services Development Board was formed. The IRH/FPS project can now receive development funds in the same manner as other vertical programs.

7. Numerous activities have been completed despite problems and delays. Site Selection Criteria and Land Acquisition Committees have been prepared and established. Architectural and Engineering firms have been solicited for preparing bids and designs for construction work. Health Post sites have been identified. Some commodities have been ordered. Long term training participants have been identified and processed. VSC and IUD insertion and Peace Corps (CHLD Program) training programs were conducted. Staff (accountants) were hired and given orientation. The Malaria Plan of Action for 1981/82 has been approved; new insecticide trials started and antimalaria drug trials completed. HMG/N met AID requirements for receiving funds and the Project Implementation Letter (PIL) was extended for producing an alternative VSC payments system.

PROJECT DESIGN & POLICY IMPLICATIONS. A crucial factor in the overall success of this project concerns the integration of the FP/MCH project staff into the IRH/FPS program. If the effectiveness of the FP/MCH program at the district level is to be maintained by integrating the FP/MCH program staff into IRH/FPS, advance planning, coordination and cooperation between IRH/FPS and FP/MCH staff at both the central and district levels is essential. This evaluation also points out a lack of coordination between NMEO and IRH/FPS staffs at both district and field level. These issues need immediate attention in order to eliminate wastage of resources and further delays in program implementation. The mechanics of financial disbursement, which have been different for each component, were confusing to MOH staff. This situation has caused low expenditure of project funds. The recent involvement of the MOH Planning Unit in financial disbursement should be carefully monitored and technical assistance provided when appropriate to improve the process of disbursement and assure that the attainment of program goals are not hampered by lack of funds or inequalities in the disbursement process.

#### RECOMMENDATIONS.

1. The review of MOH organizational components and the satisfaction of Condition Precedent, Section 4.2 of the Project Grant Agreement should be given priority attention by USAID and HMG/N.
2. USAID and HMG/N should encourage closer coordination between IRH/FPS and NMEO and IRH/FPS and the FP/MCH project.
3. The MOH should plan to absorb up to 50% of the support cost of the Panchayat Based Health Workers (PBHW) by 1983.
4. Program management issues identified in the PBHW Evaluation should be reviewed and corrective strategies implemented.
5. Efforts should be intensified to recruit additional staff to fill existing vacancies.
6. USAID and HMG/N should continue to explore alternative payment arrangements for the VSC program and determine if modifications in the current payment system are required.
7. USAID and HMG/N MOH should develop a plan with the Royal Drug Company to provide adequate drugs for the VSC and Primary Healthcare program requirements.

Participating in this evaluation were Dr. F.B. Malla and Dr. B.N. Vaidya, MOH; Dr. H.D. Pradhan, DOH; Dr. K. Vaidya, FP/MCH Project; and Dr. G.M. Sakya, NMEQ, all of HMG/N; T.L. Rose, A/D; D.R. Pickett, A/AD; Dr. G.V. van der Vlugt, G. Gilbert, C.J. Hunter, D.R. Khadgi, F.B. Thapa, D.J. Thapa and B.P. Rana, HFP; L. McPherson, RAD; S. Freundlich; Dr. L. Mailloux, ARC; M.R. Sharma, FM; and W.B. Nance and R.C. Shrestha, PRM, all of USAID.



REPORT OF THE FIRST ANNUAL EVALUATION OF SAVE THE CHILDREN FEDERATION'S COMMUNITY BASED INTEGRATED  
RURAL HEALTH DEVELOPMENT PROGRAM - NEPAL

PROBLEM & OVERVIEW. The achievement of a community based, integrated rural health program is a fundamental component of the Nepalese government's (HMG) broad development strategy. The Ministry of Health has for several years directed a nation-wide effort at accomplishing this objective through the Integrated Health Services Project (CHIP). Private sector initiatives have also been undertaken under the auspices of the Social Services National Coordination Council (SSNC), a quasi-governmental agency composed of a number of important HMG secretaries, representatives from indigenous private sector groups and chaired by Her Majesty the Queen. International private voluntary organizations (PVOs), such as Save the Children Federation (SCF), working in Nepal are legitimized through SSNC. Their programs are identified, developed and coordinated in collaboration with one or more of the several subcommittees which function under the Council. Such programs are intended to provide alternative models of delivering essential health, population control and rural development services to the underserved population. Flexibility of delivery approach and innovativeness of program content are considered the main assets of such programs, of which SCF's Community Based Integrated Rural Health Development Program is one. HMG's line ministries' programs remain the chief avenue of development assistance, however.

U.S. ASSISTANCE. AID/NEPAL is able to provide resources to international PVOs such as Save the Children Federation through the mechanism of Operation Program Grants (OPGs). AID/NEPAL and SCF, INC. signed a three year grant agreement (No. 367-0144) effective from August, 1981 to August, 1984 totaling \$518,882 of which \$342,882 is provided by AID/Nepal under the PVO Co-financing OPG project. Under this grant agreement, SCF, working with the Community Services Co-ordinating subcommittee of the SSNC and the Pokhara Lions' Club, are to establish Village Health Care Programs in a maximum of 4 panchayats, (local administrative units, usually with a population of 3000 or less, consisting of several villages within a given geographical area of a larger division or district.) If the project is extended for another two years, a maximum of seven more panchayats will be brought into the scheme. Through the program effort, it is expected that Nepalese staff of SCF and community village members will develop "their potential in program leadership, project planning, implementation and evaluation within the rural areas," and that "the concepts of community and village leadership, participation, and responsibility for self-help in socio-economic improvement will be introduced and developed." Determining ways and means of replicating successful elements of the SCF program in other areas of Nepal is also to be undertaken. The output expected after a five year effort is improved "health and overall well-being of an estimated 30,000 to 45,000 Nepalese."

PURPOSE OF EVALUATION. This First Annual Review is to determine the grantee's progress, problems and present status by examining quantifiable indicators of progress made in the village assistance program. The evaluation process consisted of a 2 and 1/2 hour meeting at AID/Nepal's office in Kathmandu at which principals from AID and SCF were present. A seven page Background/Issues Paper was distributed prior to the meeting.

FINDINGS.

1. Relationships with SSNC counterparts, district and local Panchayat officials and HMG technical staff have been satisfactorily established and coordination efforts have been fruitful. Representatives from various agencies and levels have visited the project site, attended Village Committee meetings and participated in training sessions. Initial difficulties with the Community Services Co-ordinating subcommittee have been resolved.

2. Training, demonstration and pilot activities have proved successful and have generated additional demand from beyond the immediate project worksite. The Village Development Committee (VDC) is functioning regularly and has assembled important technical resources for its work. Activities initiated include daycare and school lunch programs, adult education classes, latrine construction, engineering of drinking water supplies, building of smokeless chulos, tree planting and nursery development.

3. The village development concept is being accepted in the prime target area and the project is on schedule. This is evidenced by the participation of community health leaders in providing basic health care services, organizing a vasectomy camp, completion of other activities and increased requests from villagers for assistance.

4. Co-sponsorship of the project with the Pokhara Lions' Club has not been successful. The Pokhara Lions' Club has not taken an active role despite attempts to involve it on the part of SCF personnel.

PROJECT DESIGN AND POLICY IMPLICATIONS. The project as designed did not depend on substantial resources and commodities secured from abroad or from far beyond the boundaries of the project itself. Its success depends upon the capability of the implementing agency to organize existing community resources including technical assistance, commodities, and manpower, effectively to solve development problems at the local level. The project's logical plan and timeframe, although consistent with AID/Nepal's policy, lacks baseline parameter realism and quantifiable benefits. It sets an accumulative goal of improving "the health and overall well-being of an estimated 30,000 to 45,000 Nepalese" after a five year effort involving a maximum of 11 panchayats, only one of which being a known quantity at the outset. The strengths of flexible approach and innovative program content seem to have fulfilled expectations after one year, despite inevitable start-up problems. The weak link in this process of transfer of technology, leadership and management capability appears to be in the choice of local co-sponsorship. At this point it is too early to predict how the absence of effective, active co-sponsorship will affect the project's sustainability after three or five years. The absence does not now appear to have deterred progress, however.

#### RECOMMENDATIONS.

1. The list of project issues, which appears in the Background/Issues Paper, should be used as guidelines/indicators for the Second Annual Review.

2. In Year 2, SCF/N should continue its current program emphasis and project strategy/tactics to expand to a second panchayat as planned.

3. SCF/N should study ways and means for establishing a local SCF organization in Nepal. This is a long-term objective but SCF/N should assume leadership in achieving this goal.

4. SCF/N should be careful not to subsidize voluntary labor and should seek wider involvement of women. Community in-kind contributions should be documented in ways sufficient for AID auditors to determine if the 25% contribution requirement of the grant is being met.

Participants in this evaluation were Mr. G. Shaye, Director, SCF/N, Mr. D. Pyle, SCF/Connecticut, Mr. D. Walker, WEI/N, Dr. G. van der Vlugt and Ms. G. Gilbert, Health and Family Planning, AID/N., Mr. E. Philhower, ARD/AID/N., and Mr. R. C. Shrestha and Mr. J. M. Ryan, Office of Program Management, AID/N.

## REPORT OF THE SECOND JOINT ANNUAL REVIEW FOR THE POPULATION POLICY DEVELOPMENT PROJECT - NEPAL

PROBLEM & OVERVIEW. Following the 1974 recommendation of His Majesty's Government (HMG) Population Policy Task Force, HMG established the Population Policies Coordination Board (POPCOB) in mid-1975. POPCOB was chaired by a full member of the National Planning Commission with membership including secretaries of the key ministries and specialists on population. Its mandate was to coordinate the work of the various ministries that had implications for the structure, distribution and nature of the Nepalese population and was to suggest means for population control and distribution. POPCOB was unable to meet its objectives. Consequently, in July 1978, HMG constituted the National Population Commission (POPCOM) to give greater attention to the population issue. In 1980, an AID financed evaluation concluded that "Although (HMG) has adopted a national policy to control population growth, it does not fully recognize the serious consequences of rapid increases in population. Neither HMG officials nor the population at large seem to understand or be aware of the detrimental effects of rapid, unchecked population growth." The evaluation recommended that all donors encourage HMG to establish the POPCOM "as a fully operational entity and to support its work." In December 1981, the Nepal Aid Group Meeting, held in Paris, agreed to send a World Bank Team to Nepal to work with POPCOM in developing a population strategy.

U.S. ASSISTANCE. AID/Nepal assistance to POPCOB/POPCOM began in FY 1976 under the Population/Family Planning project and continued until October 1980 during which time initial funds from the Population Policy Development Project (No. 367-0130) were released. The Population Policy Development Project grant agreement was signed on August 31, 1979 and is scheduled to run through September 30, 1984. The purpose of this project is to develop, within HMG a population policy support system, including the capacity to undertake and analyze operational and fertility determinants research and to assess their relationship with and impact on development. Two million dollars in grant funds have been provided over a 5-year period to POPCOM to be sub-granted to Nepalese institutions for operations/fertility determinants research; to assist in the general operating costs of the POPCOM secretariat; to train 15 Nepalese in research methodology; and to provide technical assistance when consultants cannot be obtained under AID/W centrally funded contracts.

PURPOSE OF EVALUATION. The purpose of the second annual review is to assess progress since POPCOM's first review held on April 30, 1981. At that time, it was determined that the project was behind schedule by several months, due partly to a late start. However, the chief concern was that the project needed to show improved performance to justify consideration of a time extension.

### FINDINGS.

1. The project is not on schedule in many activities. Notable among those activities which are behind are completion of research reports, nominations of candidates for training and travel, HMG's financial contribution to the project and submission of expenditure statements to AID/Nepal.
2. The project has accomplished several important activities and consolidated its operational base. A National Conference on Population and Development was held with HMG, World Bank, UNFPA, Population Council and AID participation. A Population Sector Strategy Report was prepared. A Training Course in Research Methods was conducted. An experimental approach to population education and motivation using ex-servicemen operatives was planned, implemented and evaluated and is being prepared for national scale implementation. A total of 18 subactivities have been approved for funding under the IQA component. Several participants have been sent for training in the U.S.

3. Important issues remain that need to be addressed and resolved. The full commission has not met for 18 months. HMG's financial contribution is 6% instead of the agreed to 16%. Commission staff are either deputed from other agencies or working on a provisional basis without civil service protection and adequate compensation. Participant training nominations have been delayed and extended several times. Invitational travel for National Legislative members (Rashtriya Panchayat) has not been utilized. Three major sub-projects are 10 months behind schedule. The time lag between when POPCOM requests release of funds for sub-projects and when funds are actually made available is excessive.

4. The effectiveness of the reconstituted National Population Commission will depend on how quickly inter-ministerial relations develop. The Population Division, of the National Planning Commission, was reconstituted as the National Population Commission in April, 1982. A new, full-time Vice-Chairman was appointed at that time. The Chairman remains in the person of the Prime Minister. The former Executive Director has been appointed as the Secretary of the Commission. It was recognized that the authorities and powers of the Commission as well as the distinguished reputation of the new Vice-Chairman should enable the Commission to play a more effective coordinating role with HMG line ministries and other entities. However, it was pointed out that the longer it takes to establish effective relationships, the more difficult the task is likely to become given the previous situation.

PROJECT DESIGN AND POLICY IMPLICATIONS. The critical issue affecting the success appears to be whether the creation of a Population Division within the National Planning Commission from the ashes of the failed POPCOB was the correct solution to the need. There is no argument regarding the need for a policy deliberating and articulating entity with respect to population control. The issue, as testified by the several reorganizations, is how to mandate authority to the entity and empower it so that its recommendations and findings are actually implemented through the appropriate line ministries and agencies of HMG. To be successful, such an intervention has to be accomplished subtly with great diplomacy and backed with resolute authority at the highest level. Residual authority for population control lies within the Ministry of Health and its implementing agencies or programs, the FP/MCH and CHIP projects. Other line ministries are not primarily concerned with population policy and many HMG officials were found to be lacking in awareness of the crucial problems presented by the unchecked growth of population. To be effective, a relatively newly incorporated government entity, POPCOB or POPCOM, must intrude into unfamiliar but traditional areas of influence and domination with great sensitivity. The appointment of the new Vice-Chairman, a man of distinguished reputation, in the most recent reorganization should enable the Commission to more effectively carry out its assigned role.

#### RECOMMENDATIONS.

The project should be subjected to a rigorous evaluation in December, 1982 which would examine how effective the latest reorganization has been in resolving the longstanding issues and in facilitating completion of previous assignments. The findings of this evaluation would serve as the basis of a decision regarding continuation of the project through its scheduled expiration date.

Participants in this evaluation were Dr. B. P. Upreti, Acting Secretary; Dr. R. D. Pant, Sr. Economic Advisor; Mr. B. Mulepati, Joint Secretary; Dr. P.L. Joshi, Advisor; B.R. Bhattarai, Section Officer; M. Thapa, T.N. Panjiyar, N.B. Karki, Research Officers; R.M. Shrestha, Accountant; A. Pandey, Documentation Officer; and I. Rana, Advisor; all of HMG and Dr. A.S. David, Advisor; D. Mutchler, D/PDR; D. Pickett, A/Asst. Director; W. Nance, Program Officer; Dr. G.V. van der Vlugt, HFP; J.A. Huxtable, ARC; J. M. Ryan and P.D. Morris, PRM; and L. McPherson, RAD; all of USAID.

## PROJECT COMPLETION REPORT ON THE MALARIA CONTROL PROJECT - PAKISTAN

PROBLEM & OVERVIEW. Malarial occurrence has experienced an increase in recent years, particularly in the rural areas where the majority of the population lives, 75% of whom are at risk. In 1974, for example, 10 million cases were estimated and microscopic analysis of blood samples indicated a 14.9% positivity rate whereas in 1967, the incidence had been reduced to a total of only 9,500 cases. There are several types of malaria for which the incidence rates vary. Notable among these is P. Falciparum, a form of malignant malaria which is usually fatal if not treated.

U.S. ASSISTANCE. This Malaria Control Project agreement (No. 391-0424) involves the Government of Pakistan (GOP), USAID, the World Health Organization (WHO), UNICEF and the Government of Japan. The AID contribution took the form of a 6-year, \$24 million loan agreement (No. 391-U-163) signed on October 10, 1975. The original Project Activities Completion Date (PACD) was to be December 31, 1978. This was later extended to June 30, 1981. The project purpose was to assist GOP to reduce the incidence of malaria to a level at which the disease would no longer be a public health problem and could be prevented by minor public outlays. This achievement would be indicated by the presence of an annual parasite incidence (API) rate of no more than 500 positive cases per one million population (API=0.5). AID's funds were to be used to procure insecticides, larvicides, sprayers and spare parts, for the services of technical advisors, and to support research activities. WHO, UNICEF and the government of Japan provided commodities including drugs, microscopes and vehicles, technical and training assistance, training fellowships, and support for local costs. The GOP provided local support cost assistance at both federal and state levels. The project was implemented by the Directorate of Malaria Control at the federal level and the Provincial Health Departments at the state levels. U.S. assistance for malaria control dates to 1963.

PURPOSE OF EVALUATION. This is a Project Completion Report to determine to what extent the project's purpose and goal have been achieved. Annual assessments were made from 1976 through 1979.

### FINDINGS.

1. Malaria control efforts have reduced the incidence to five cases per 10,000 population or an API = 0.5. Spray operations were carried out and successfully completed in all years of the project. However, the API varies in different areas and different provinces. In some sectors of the Punjab, it may range from 18-20 cases per 10,000. In Sind, it is 1.1 case per 10,000. In the years 1977-1980, spray operations were carried out without serious episodes of intoxication.
2. Most of the malathion and all of the larvicides procured and imported with AID funds have been expended. A few tons of malathion are still available at the provincial and district insecticide stores. Most of the equipment and spare parts procured are still in working condition and are being used in the on-going GOP spray operations. The insecticide Sumithion, purchased under the Japanese grant, is currently being used for spray operations.
3. AID technical advisors completed their assignments; at present there is no expatriate technical advisor in country in connection with this project.

4. The provincial malaria control program established urban malaria cells; however, the urban malaria program has not yet been effectively developed although the federal government has supplied the insecticides, larvicides, transport and spraying equipment to local implementing bodies.

5. Studies on the sensitivity of P. Falciparum were carried out in some sectors. Insecticide susceptibility activities were also carried out.

PROJECT DESIGN & POLICY IMPLICATIONS. Although the incidence of malaria has been sharply reduced, the present situation does not reflect the second project purpose of maintenance through minor public outlays. Further inputs will be required both from the GOP and donor agencies in order to maintain the gains in health improvement achieved by this program. It will be necessary for the GOP to consider malaria control as a long-term public health program requiring staff, materials and financial support.

RECOMMENDATIONS.

1. There should be a continuation of the effort to maintain, or reduce further, the incidence of malaria to a level where it becomes a minor problem in the overall health situation.
2. The urban malaria control program is not yet effectively functioning and needs to be strengthened.
3. Various methods for malaria control, such as biological control, need to be explored.

This evaluation was performed by Program Staff of USAID/Pakistan.

## EVALUATION SUMMARY OF THE MALARIA CONTROL PROJECT - SRI LANKA

**PROBLEM & OVERVIEW.** Malaria has been a serious problem in Sri Lanka for centuries particularly for the rural population living in the Dry Zone of the country. Approximately 85% of the population live in malarious areas. In 1946, the Government of Sri Lanka (GSL) began a formal anti-malaria program and by 1963, only 17 cases were detected. The disease had been brought under control for the first time in history. However, by the end of the 1960's, it began to reappear, a fact that was primarily due to emergence of DDT-resistant mosquito populations. In 1975, the country recorded 400,777 malaria cases. The actual number probably exceeded one million. Increased infant mortality and general illness and debilitation of the work force were also evident in the affected areas.

**U. S. ASSISTANCE.** The present six-year malaria control program began in FY 1977. A Project Loan Agreement (No. 383-0043) was signed on February 28, 1978 between GSL and USAID which provided \$12 million to assist GSL in the procurement of required supplies (mainly the insecticide malathion), training and local cost support funds, and for the repair and rehabilitation of the Malaria Training Center and insectary. An additional \$4 million was obligated in August, 1979. Other donors to malaria control activities include the World Health Organization (WHO) \$500,000; the Government of the Netherlands (\$4.0 million); and the British Government (\$2.3 million) over the period 1977-81. The purpose of the project is "to bring malaria under control," i.e. reduce incidence to one (1) case per 1000 population or 15,000 per annum. The goal is "to reduce morbidity and mortality from endemic diseases through the establishment of a responsive, effective and efficient nation-wide health service." The project is implemented through the Anti-Malaria Campaign (AMC) of GSL.

**PURPOSE OF EVALUATION.** The evaluation is to compare the logical framework and the project's objectives with the present state of program progress as of September, 1981. To accomplish this evaluation, the team reviewed three in-depth Anti-Malaria Campaign Evaluation Reports (November 1978; February 1980; June, 1981); reviewed yearly AMC administrative reports and minutes of Regional Conferences; and conducted field observations. Discussions and report reviews were also held with three WHO malaria specialists assigned to the GSL's AMC.

### **FINDINGS.**

1. **Several external factors have adversely affected the malarigenous conditions of the country and will continue to present obstacles to the program.** These include numerous irrigation and resettlement projects, particularly in the Mahaweli Development Program, an increase in gem mining activities and the traditional practice of "slash and burn" cultivation. Recent drought conditions have created minor, localized outbreaks of malaria as well.

2. **The procurement of malathion has been both timely and effective and has enabled the project to complete 75% of its targeted spraying coverage.** Over 14 million pounds have been applied in the 1977-81 period and the actual number of dwellings covered has exceeded targets in all 4 years. All procurement has been done through the Sri Lanka Embassy in Washington, D.C.

3. **Training has been carried out on schedule over the life of the project.** Approximately 15 man-months were allotted for training abroad and 10 have been used to date. Two more regional observation tours are scheduled for FY 1982 and two medical officers are being processed for four-week training during FY 1982. In terms of local training, the AMC Training Center has fulfilled many of its objectives. The major gaps in training are for microscopists and Field Assistants. Recruitment for these posts was completed in August, 1981 and a major training effort is to be undertaken during the last quarter of 1981.

4. Monitoring inputs to the project have been made by the USAID Regional Malaria Advisor as agreed by the Asia Bureau and USAID/Sri Lanka. Forty percent of the Advisor's time and activities each year have been directly devoted to the Sri Lanka Malaria Control Project.
5. WHO has assigned three scientists to the Project as agreed during the development of this project. These officers provide required technical assistance to the AMC on a daily basis. The WHO/Southeast Asia Regional Office Malaria Advisor, stationed in New Delhi, makes periodic trips to the country for policy and evaluation purposes.
6. The number of cases of malaria reported in 1980 was 47,949. The number projected in the Project Paper was 60,000 or less. The program thus far has been very successful. It is expected that 1981 will show additional improvement in case rates.
7. The initiation of village education programs has resulted in a large number of village volunteers in all regions providing anti-malaria drugs for fever cases. In the Mahaweli Project's "H-System," for example, there are over 300 such volunteers in place.
8. The development of Passive Case Detection institutions has lagged in spite of circulars from the Ministry of Health to collect slides from fever cases. This is a major problem area and must be solved if malaria integration is to occur.
9. The project has a number of unplanned benefits which have importance and utility. These include an increased environmental awareness among Sri Lankan officials to the human and ecological effects of mass applications of insecticides, active collaboration in AMC activities by community volunteers, and the use of alternative methods of malaria control which were not considered at the time the project paper was written.

PROJECT DESIGN & POLICY IMPLICATIONS. There are several aspects of this project's design which have greatly improved its success factor. The most obvious has been the handling of the procurement of malathion. Another has been the simplification of AID's project assistance procedures and other donor country requirements essential to effective implementation. This malaria control project is probably closer to the way that an assistance loan should be negotiated with GSL as far as documentation and evaluation are concerned, but it could have been improved by simplifying the Conditions Precedent. A third aspect is the importance of inter-sectoral cooperation between malaria activities and other offices of the Government, e.g. irrigation, health, public works, roads, and agriculture. Such coordination at the planning stages lessens the risk of creating conditions through development activities which lead to an increase of malarigenous conditions. Yet there remains a need to continue to press for cooperation in light of the widespread Mahaweli Development Project. The program is now stratifying its operational areas for planning purposes for the New Plan of Operations 1982-86, which will decrease spraying operations and increase surveillance and drug treatment activities. The anti-malaria efforts are making good progress towards the stated objectives, but a long term GSL commitment to this activity is necessary. This will require staff, materials and financial support for many years if the gains in health improvement which have been made since 1977 are to be maintained. While the program's interim targets have been achieved, there is still a major operational effort ahead to obtain the level of malaria control which the GSL has targeted in its overall health planning.



## RECOMMENDATIONS.

1. The USAID Regional Malaria Advisor should coordinate USAID actions for the fourth procurement of malathion for the Project in order to ensure smooth flow of commodities to field operations.
2. The Superintendent of the AMC should prepare and obtain approval of a new Plan of Operations to cover the AMC program for the period 1982-86.
3. The AMC Superintendent and the Regional Malaria Advisor should schedule the Annual Program Reviews for 1982 and 1983.
4. The AMC Superintendent should request provision for field epidemiological surveillance and laboratories.
5. Plans for future donor assistance to GSL for the malaria control program should be prepared for the 1982-86 period.

This evaluation was conducted and prepared by Dr. A.N.A. Abeyundere, Superintendent, Anti-Malaria Campaign, Government of Sri Lanka; Larry Cowper, Regional Malaria Advisor, USAID; and John M. Miller, Chief, Office of Program, USAID/Sri Lanka.

FY-1982 EVALUATION OF THE BANGLADESH FOOD FOR DEVELOPMENT PROGRAM (P.L. 480 TITLE III) - BANGLADESH

PROBLEM & OVERVIEW. Perhaps the most critical of all Bangladesh's problems is the chronic and often immediate need for food. The need is critical because it often affects an enormous number of the impoverished rural poor, quickly exhausting the government's resources and thus its capabilities of reacting to an emergency. It is chronic because it is often brought about by catastrophic climatic events such as unusually heavy rainfall and flooding or prolonged drought or cyclonic disaster. These conditions are aggravated by the pressure of the population on the arable land, the primitiveness of the agricultural sector, the landless state of over 65% of the population, and the inevitable increase of population which inexorably erodes even modest gains in productivity. The community of international development organizations and those countries which maintain bilateral development assistance programs in Bangladesh have tried to address the root causes of the problem while simultaneously working closely with the Government of Bangladesh (BDG) to stabilize and regulate the domestic supply and prices of essential foodstuffs. These efforts are often combined with sectoral development goals particularly efforts which promote greater agricultural productivity.

U.S. ASSISTANCE. Under the Public Law (P.L.) 480 Title III program, the United States Government (USG) made available substantial amounts of foodgrains and cooking oils for BDG-sanctioned "open market sales" (OMS) and for release through the Public Food Distribution System (PFDS). Under this program, the prices at which the foodstuffs are offered are carefully fixed and monitored so that the incentive prices to farmers to increase output are maintained. Prices are also sensitive to spot and/or cyclical shortages and catastrophic events that create conditions which can be exploited such as through the practice of hoarding to drive up prices. In March 1982, the USG, acting through USAID/Bangladesh, signed a three-year P.L. 480 Title III follow-on agreement with the BDG. Under this agreement, foodstuffs worth \$64 million were imported during the FY 1982-1985 period. These shipments included 172,000 metric tons (MT) of wheat, 54,000 MT of rice, 24,000 MT of soybean oil and 27,000 MT of cotton bales. In the first Title III project (FY1978-1981), total shipments amounted to 1,174,000 MT of wheat and 25,000 MT of oil with an aggregate value of \$191.4 million. Also under the Title III program, revenues generated from the sale of imported foodstuffs are first deposited and accounted for and then authorized for disbursement to finance previously agreed to development projects or for currency-use offset purposes.

PURPOSE OF EVALUATION. The evaluation for FY-1982 covers the remaining period of the FY 1978-1981 Agreement and the period from the signing of the new FY 1982-1984 Agreement in March, 1982 through the drafting of this report (November, 1982.) The evaluation analyzes the annual progress made toward achievement of program goals and other factors affecting the operation of the Food For Development Program. Since the goals of the FY 1982-1985 program have been expanded from those of the earlier program, the evaluation also covers the objectives pertaining to the current agreement.

FINDINGS.

1. As of April 1982, total sales of 734,900 MT of wheat had been accounted for under the FY 1978-1981 Agreement. From these sales, the Taka equivalent of \$117.4 million had been deposited and \$113.8 million of this amount had been disbursed. Of the disbursed amount, \$99 million was certified for currency-use offset purposes. Of the balance of wheat, 45,300 MT is to be distributed through the Modified Ration System and 393,000 MT for application to OMS.

2. No currency generation figures from OMS or other distribution channels are yet available for the commodities imported under the FY 1982-1985 Agreement.

3. OMS prices were generally correctly set as required by the Agreement and there was a consensus among OMS dealers that the intervention had a positive impact on constraining prices. OMS offtakes were relatively high in April and May which coincided with the highest rice prices of the year.

4. BDG officials imposed restrictions on the OMS program which conflicted with the requirements of the Title III Agreement. These restrictions were an important factor in the low level of OMS offtakes at times and they reduced the program's impact on prices.

5. The PL-480 Title III Agreement was amended on October 14, 1982 to require all Title III grain be used for OMS. Under this amendment, 100,000 MT of wheat and 10,000 MT of soy bean oil valued at \$21.6 was provided. The amendment also deleted the resale conditions on OMS dealers. This amendment was part of an initiative to make initial Title I and III commitments early in the new U.S. FY.

6. Modified rationing (MR) offtakes far exceeded those of OMS throughout BDG FY 1981-1982. Total MR offtakes for the year were 482,916 LT as compared to 179,138 LT in FY 1980-1981.

7. Performance in the area of maintaining incentive prices to farmers to encourage increased output through investment in high yielding varieties has been good. Procurement prices for the coming Aman crop were announced on June 30 as required by the Title III Agreement and well in advance of the harvest. Procurement in support of prices was very limited in FY 1982 since the price of paddy and rice, as well as that of wheat, exceeded procurement prices most of the time.

8. The terms and conditions of the Title III Agreement pertaining to the removal of the 12,500 limit on the number of spindles in textile mills have been met. The BDG's intention at present is to return approximately 60% of power-loom weaving capacity and 40% of cotton spinning capacity to the private sector.

9. The use of the Title III crude, degummed soybean oil (CDSO) has been hampered by several problems and BDG in FY 1982 shipped only 14,000 MT. Among these are storage and refining capacity in Bangladesh for Crude Degummed Soybean Oil (CDSO) However, 10,000 MT of the more expensive refined oil was shipped as well. There were some operational and communication problems which further hampered the operation of the soybean oil program.

10. The Title III program is now at a stage where consideration should be given to a systematic approach to modification in the list of approved projects. Until now, procedures for changes in the approved list have been ad hoc. As well, performance has varied widely in the approved project portfolio. Corrective action was taken by BDG in some instances.

PROJECT DESIGN & POLICY IMPLICATIONS. Bangladesh achieved a milestone in food and agriculture policy in 1982 when, for the first time in its history, the ration price of a commodity exceeded the local procurement price. This represents the achievement of two major Title III program requirements: a price structure more conducive to production incentives and a phasing down of the ration system. BDG has made considerable progress in restructuring the ration system as well and in comparison with the most recent comparable year, data show the PFDS is being effectively reduced. It is significant that the present administration accomplished this during a period of worsening economic conditions. In general, it may be said that BDG has demonstrated a laudable willingness to make politically unpopular decisions notwithstanding the difficult economic times.

#### RECOMMENDATIONS.

1. No additional sale of Title III grains should be allowed for the Modified Ration System as now constituted. BDG should give flour millers and Atta crushers the option of commercial import purchases and direct imports where their own needs are concerned.

2. The BDG should be encouraged to increase the ration price prior to the effective date of the Aman procurement price in order to keep ration prices above the procurement price.
3. Wheat procurement prices, together with the adjustment of OMS and ration prices for wheat, should be announced before the planting season.
4. Only crude soybean oil should be provided. PL-480 vegetable oil should go to the private sector. The U.S. Department of Agriculture representative member of the evaluation team felt that the BDG should be encouraged to purchase soybean oil from the U.S. since commercial purchases are being made.
5. A systematic approach needs to be developed for the review and any modification of the approved project list. A joint annual review by the U.S. and BDG of the projects should be undertaken to ensure that local currencies generated under Title III are allocated in ways that take into account performance and priority of projects.
6. The development of a food policy and planning capability should continue to be monitored to ascertain progress.
7. The BDG should develop timely and accurate forecasts of production.

This evaluation was conducted and drafted by David E. Kunkel of the U.S. Department of Agriculture and Peter Thormann of USAID/ASIA/PD and revised by the Office of Food and Agriculture of USAID/Bangladesh.

AN EVALUATION OF THE INDONESIAN NATIONAL NUTRITIONAL SURVEILLANCE SYSTEM (SECOND INTERIM IN-PROGRESS EVALUATION) - INDONESIA

PROBLEM & OVERVIEW. The Government of Indonesia (GOI) recognizes malnutrition as a serious national problem aggravated from time to time by droughts, flooding and other factors which reduce the supply of basic food commodities available in the local markets. Despite a national nutrition program augmented by substantial assistance from bilateral and multilateral donors, the problem persists. In order to better cope with the chronic problem as well as predict and respond to specific and short-term "emergency" incidences of malnutrition, GOI has undertaken the long term development of a nutrition surveillance program. The first element of this strategy is the establishment of an Early Warning Information and Intervention System (EWIIS).

U.S. ASSISTANCE. In 1979, the GOI and USAID entered into an agreement through which Cornell University was to work with the GOI's Center for Research and Development in Nutrition (CRDN) to design, test and implement a Nutrition Surveillance System. This objective was modified at the request of GOI and the Cornell advisory team when it became apparent that a more fundamental requirement was for an Early Warning Information and Intervention appropriate to GOI's needs. It was determined that after such an early warning system had been successfully established, it could be broadened and modified to include nutrition surveillance. One of the original contract outputs was to have been the identification of high risk areas.

PURPOSE OF EVALUATION. This evaluation should promote the progress and the successful attainment of all project objectives by March 1983. The first in-progress evaluation was conducted in February 1981. This report was critical of the project, stating that the orientation of the Cornell advisory team was toward laboratory research rather than field practice and towards data analysis rather than systems analysis.

FINDINGS.

1. The 1981 work effort has coalesced into a clear definition of the test system for Lombok and an ambitious but feasible plan for working toward an EWIIS in both Boyolali and Bali. Many of the issues raised in the 1981 evaluation have been dealt with adequately by the Cornell/CRDN team but the evidence of this progress has emerged only since the workshop in January of 1982.
2. The research phase, a concern noted in the first evaluation, appears to be winding down and is being replaced by an intensive focus of effort on field implementation. The closer the Cornell/CRDN team comes to field testing, the more aware they appear to be of the need to understand the dynamics of their proposed system and its relationship to the changing environment of their test sites.
3. The field test in Lombok is about to begin. The process for designing an EWIIS for another geographic area is being refined in Boyolali. The plan to test the ultimate transferability of the system without intensive data analysis is in place for Bali.
4. The postponement of testing the EWIIS has created a time management problem. In order to complete the project timetable within the current life of the project, procedures would have to be established for disseminating the EWIIS to Bali and, if successful, throughout Indonesia prior to completion of even one full cycle of the system in the Lombok test area.
5. It is premature to expect completion of the identification and mapping of high risk areas. Efforts to achieve this goal will conflict with the need to focus now on testing in the pilot areas and may divert resources away from achieving that important objective.

6. Additional research (and/or better documentation of existing research) on various components of the system is still justified. These components include (1) response, (2) motivations and behavior, (3) validation of quantitative data; (4) development of performance specifications, (5) use of health and of alternative indicators to assess system performance; and (6) methods to keep the system alert.

7. The GOI has initiated a multi-disciplinary effort to find the best Ministry for implementing the EWIIS after the development project is terminated. The January Workshop led to the formation and activation of a multi-disciplinary Steering Committee which is to meet every two weeks throughout the year.

PROJECT DESIGN & POLICY IMPLICATIONS. It is clear to the Evaluation Team and to Cornell University that the original contract does not conform in all ways to the current project's objectives and activities. The Evaluation Team feels that the original contract was far too ambitious. The current set of activities represents a more reasonable and achievable package. However, there are still some ambitious but feasible elements of the current workplan. Careful control must be exercised at all stages of the Cornell/CRDN workplan or the critical path through the tasks will be irreparably disrupted. In terms of policy, it is the Team's view that the development of a more broadly defined Nutrition Surveillance Program of activities should be the responsibility of an agency with a predisposition toward long term prevention of problems and a history of attacking the root cause of malnutrition. In addition, any program or system, be it EWIIS or Nutrition Surveillance, must be viewed as a dynamic and changing mechanism. Part of the design of such a system must be the inclusion of procedures to insure the system's vitality. Finally, the responsible authorities, agencies and foreign donors must take into consideration the principle of equity to the extent that EWIIS ought to be uniformly implemented throughout the country.

#### RECOMMENDATIONS.

1. Top priority should be given to the field test in Lombok. No other activity should divert resources from this objective. A systems manager with responsibility for the field test should be immediately identified and deployed in Lombok.
2. A clear program of field research should be developed to strengthen the design and operation of EWIIS.
3. Mapping of high risk areas should be deferred until after testing in the pilot areas is completed, unless it can be undertaken without drawing resources from the main effort.
4. The planning of functional expansion is recommended but only after completion of the current objectives and workplans.
5. The revision of the Project's Scope of Work for the USAID contract should be continued to bring it in line with current project objectives and plans.
6. To prevent fragmentation of the expansion effort, dissemination of the EWIIS should be minimized until results are carefully tested or evaluated.
7. The system's design should be sharpened to include explicit recognition that those operating the system must learn from their experience over the years and modify the system accordingly.

This evaluation was conducted and written by Dean Wilson, Team Leader; Bruce Currey; Abraham Horwitz; Roy Miller; Alberto Pradilla; Harold Rice; and Rudolf Sinaga.

## EVALUATION OF PL 480 TITLE II MCH PROGRAM IN EAST AND CENTRAL JAVA (INDONESIA)

PROBLEM & OVERVIEW. The Government of Indonesia (GOI) recognizes malnutrition as a serious national problem. One of the groups most severely affected by protein-energy malnutrition is the Balita group (preschool children aged 5 and under). The Indonesian National Bureau of Statistics reports a mortality rate of 91 out of 1000 for this group. Closely related to the welfare of the Balita is the nutritional status of the pregnant woman and the nursing mother. Nutrition improvement programs have been carried out since early the 1950's. Even with changes in scope, target priorities, and methods of operations, the programs have continued and have been expanded. The GOI's Master Plan of Operation for the activities of the nutrition improvement program (UPGK) in the current or Third 5-Year Development Plan (PELITA III), are carried out by four institutions and assisted by UNICEF.

U.S. ASSISTANCE. U.S. assistance is carried out through Public Law 480 Title II. Under bilateral agreements between the U.S. Government and GOI and between the Catholic Relief Services (CRS) and GOI, PL 480 Title II commodities enter the country free of duty, are donated and distributed to those in need without regard to race, creed, color or political beliefs using about 250 indigenous Catholic Social Welfare Agencies most of which are concentrated on Java. CRS distributes about 95% of the Title II commodities for Indonesia, serving over 100,000 recipients. The primary objectives of the Maternal-Child Health Program (MCH) are to improve the nutritional status of pregnant and lactating mothers and malnourished or borderline children under five years of age. This is accomplished by providing supplementary foods and nutrition education which focuses on the preparation of nutritious family meals using low cost foods and Title II food commodities.

PURPOSE OF EVALUATION. This evaluation was to assess the impact of the PL 480 Title II Maternal Child Health Program on its recipients and to determine the effect of the instruction and educational programs on the recipient households. This study evaluates the MCH programs carried out by CRS, two local CRS counterparts, and the GOI/UPGK program which does not receive Title II support. The two CRS counterparts are Lembaga Karya Dharma (LKD) and Yayasan Sosial Bina Sejahtera (YSBS). Each distributes Title II commodities in a different manner; LKD most closely approximates the UPGK system. The evaluation team reviewed project documents and records and conducted field trips to project sites and interviews with project officials and recipients.

### FINDINGS.

1. According to the Balita weight-for-age data, 50% are well-nourished (group 'A' status), 46% are mildly or moderately malnourished (group 'B' status), and 2% are severely malnourished (group 'C' status). However, most of the age and weight data collected by the Kadre (voluntary field performer) are not reliable for statistical analysis.

2. The CRS MCH feeding program is not consistently better than the UPGK program. The CRS MCH program seems to be more effective for reaching children in the high risk 'C' group and moving them to the 'B' group. The impact of the UPGK on-site feeding program appears to be better than the CRS/MCH program in terms of those who progressed from group 'B' to group 'A' status. In practice, the UPGK program generally ignores group 'C' children.

3. Family members share the food supplement so that each member gets only 8-10% of the caloric and 18-25% of the daily protein requirements. Children like foods prepared with Title II commodities according to mothers. Title II foods are cheaper than local foods and act as important supplements during periodic food shortages.

4. The primary weakness of Title II MCH Programs is the lack of qualified manpower in the field of nutrition. There are no personnel with nutrition qualifications at local administrative levels. There are few social workers and field staff who have any basic nutrition training. This results in lack of program control and lack of supervision at local administrative and village levels. The absence of careful monitoring of children's growth is also a weakness of the MCH program. Field workers and social workers seem to be overburdened, serving as administrative assistants in addition to their primary responsibilities.

5. There are overlaps with GOI/UPGK and MCH Title II nutritional programs. This is not entirely the fault of CRS counterparts. Villages with more enthusiastic leadership, better organizations, and more active PKK groups tend to be favored by GOI administration. MCH program villages tend to fall in this category. However, because of this overlap, needy individuals and families in other villages are excluded.

6. The eligibility evaluation system is counter-productive to its intended purpose. There are major problems with the enrollment system, from initial eligibility entrance through graduation from the program. This is primarily due to the long gaps between evaluations. Periods up to 3 years between evaluations are not uncommon. Children older than 5 stay on the program sometimes two or three more years, while younger children are not able to get on the program because they happened to be born between evaluations. Thus the fundamental concept of growth monitoring and interpretation of children's progress on the program cards is not well understood by mothers.

PROJECT DESIGN & POLICY IMPLICATIONS. According to GOI policy, foreign food assistance using imported commodities must be categorized as "short term" assistance directed particularly towards overcoming emergency situations. This policy results from the policy of the U.S. Government which gears the continuation of food assistance to various indicators of economic growth and development of the recipient country. In view of the fact that CRS/Indonesia has never carried out a systematic evaluation or "needs assessment" of its Title II MCH program, it is difficult to discern the real depth of the problem and to distinguish that from the justification of "short term" assistance. Given the long history of the GOI (and CRS) program involvement and the aims of the present Five-Year plan, raising the nutritional status of the population is and will continue to be a strategic element of development policy. Given that the CRS program is at least as effective as other GOI-dominated programs, it seems advisable that USAID and GOI representatives address the question of the long term need, conceive ways and means to ensure that program assistance does not abruptly end, and generate a policy that integrates and guarantees long term Title II or other food assistance to GOI consistent with its strategic needs and policy goals.

#### RECOMMENDATIONS.

1. A periodic and systematic review of all CRS MCH program villages and program services and recipients needs to be established. Targeting functions must be improved both in terms of identifying specific program villages and in identifying and delivering services to "at risk" individuals.

2. The entire system of supervision and the problem caused by a lack of qualified personnel needs to be re-evaluated. It may be necessary to employ one nutritionist or assistant nutritionist at each provincial center and two social workers at each district sub-center. Training procedures for field workers in the use of age-weight data for better recording and reporting is essential.

3. A CRS protocol (in conformity with GOI/UPGK policy) needs to be established regarding follow-up treatment for group 'C' children.

4. The effectiveness of the Title II ration can be enhanced by integrating the feeding component with specific health services and with nutrition education focusing on the mother. The educational component must be delivered at the weighing and feeding sessions and tied to service delivery.



5. The USAID Food for Peace Office should review the caloric and protein balance of Title II commodities to determine nutritional adequacy for maximum nutritional impact for the target groups taking the intra-familial distribution and consumption practices into account.

6. CRS/Jakarta and its local counterparts need to establish closer coordination and cooperation with the GOI/UPGK program at all operational levels but especially at the district and sub-district levels.

This evaluation was conducted and prepared by Ir. M. Khumaidi, MSc. Nutritionist, Department of Gizi Masyarakat dan Sumberdaya Keluarga Fakultas Pertanian, Institut Pertanian Bogor; Dr. Hiroko Horikoshi, Anthropologist, Department of Anthropology, University of Washington; Dr. Helen Johnson, Communication and Education Specialist, USAID; Dr. A.A. Mattjik and Ir. A. Rambe, Statisticians, Department of Statistics and Computer Fakultas Pertanian, Institut Pertanian Bogor.

## EVALUATION OF P.L. 480 TITLE II PROGRAM IN SRI LANKA

PROBLEM AND OVERVIEW. Among the poor in Sri Lanka, malnutrition has been and continues to be a serious problem. Various surveys have demonstrated the prevalence of malnutrition. The largest national survey, undertaken by the Ministry of Health with technical support from the Center for Disease Control in 1976, found that 35% of all preschoolers were deficient in height-for-age and nearly 7% in weight-for-height classifications. The long term strategy of the Government of Sri Lanka (GSL) is to combat poverty and malnutrition through development and stimulation of the agriculture sector. In the short run, emphasis upon development activities has created a greater temporary reliance on external assistance for both the development effort and the maintenance of health and education systems. Several government efforts are in place to provide short term relief in the area of nutrition until the development program ameliorates the situation. The largest of these is the Food Stamp Scheme. Introduced in September, 1979, this program benefits one half of the population (about 7.6 million people.) Other donor nutrition programs include the World Food Program (committed food aid since 1964 is \$80.72 million), UNICEF (soya foods extension program), the Sarvodaya Organization, a local Private Voluntary Organization (PVO) which operates 3500 community kitchens, Save the Children Federation (SCF) and various private and religious organizations involved in the distribution of foods to needy groups.

U.S. ASSISTANCE. The largest donor nutrition program is that supported by the U.S., the P.L. 480 Title II Program. This effort began in 1956 with the School Feeding Program administered through CARE. It then evolved into the School Biscuit Program, an effort to provide 1,250,000 school age children with 44 grams of a nutritious biscuit on 180 school days per year. In 1973, CARE expanded its involvement under P.L. 480 Title II to include the distribution of a weaning food, Thripasha, to needy children through the health care system. The cost of U.S. commodity contributions in 1981 were \$2,881,036 for the Thripasha Program and \$1,684,254 for the School Feeding Program.

PURPOSE OF THE EVALUATION. This evaluation, requested jointly by AID/Washington, USAID/Sri Lanka and the GSL, is to provide data and develop recommendations that will improve program impact and effectiveness. Evaluation objectives are to assess the nutritional impact resulting from the program, and to prepare a cost-effectiveness analysis of the program's components. The impact assessment was done for the Thripasha program only. Using data obtained from health clinic records, the nutritional status of long term program beneficiaries was compared to that of newer beneficiaries of the same age. The cost-effectiveness analysis incorporated cost data derived from official audit records with beneficiary records. The same data was used to perform extrapolations upon which recommendations could be founded. All analytical work was subjected to review by GSL and USAID staff as well as outside sources in Sri Lanka prior to the preparation of the report.

### FINDINGS.

1. Long term-participants (13 to 29 months) and medium-term participants (7 to 12 months), exhibit statistically significant positive nutritional improvement when compared to short-term participants (1 to 6 months). Sample data for 1,799 preschool children was obtained from 61 Maternal Child Health clinics participating in the Thripasha distribution program. It is impossible to conclude that Thripasha alone is the cause of nutritional improvement. Immunizations, primary health care curative services, provision of vitamin and mineral supplements, health education and distribution of Thripasha are all components of the package of services provided by the MCH clinics which may impact on nutritional status.

2. The Triposha distribution program has an important incentive effect which encourages families to participate in the MCH system. The package of services available through MCH clinics is described above. An adverse effect of the program is the dependence on the product on the part of the nation's poor.

3. The Triposha program has stimulated corn and soya production in Sri Lanka. There is now enough locally grown soya and maize on the market to support total indigenous production of the product. However, the production incentives have been established by government price support mechanisms.

4. Commercial marketing of the product based on the free market price of the principal ingredients may be feasible. This finding assumes reasonable profit margins for producers, wholesalers and retailers and a retail price of Rs. 5.83 per lb. Analysis of protein content shows that Thriposha delivers more protein per rupee spent than any available competitor. It is twice as cost effective as its nearest competitor.

5. The lack of regularly collected anthropometric data on school children in the schools precludes assessment of the nutritional impact of on-site biscuit consumption. Using anthropometrics as a measure of nutritional status in school age children has inherent weaknesses. Intuitively, it may be argued that the biscuits help fill part of the nutritional gap for elementary school children and, therefore, help participating children maintain their level of nutritional well-being. The protein and caloric content of the ration is too small to close the nutrient gap of poorer children. The sharing of already small rations with siblings and other family further diminishes its value to a single individual. There are individual physiological considerations which cannot be factored into an uncontrolled sampling.

6. No correlation between classroom attendance and access to school biscuit feeding could be established. Analytical results were inconclusive because the research design was inadequate.

7. In terms of the Triposha program, USAID's share, in 1981, was 74% of the total cost; in 1982, it was 62.5%. In terms of the school feeding program, USAID's share in 1981 and 1982 was 66%. The total per lb. cost of Thriposha in 1981 was Rs. 4.6 and in 1982, Rs. 4.8. The per lb. cost of school biscuits per child per 180-day year is calculated at Rs. 114 for 1981. 1982 cost per lb. comparisons are Thriposha at Rs. 4.8 and school biscuits at Rs. 6.47. The target of 1.25 million biscuit beneficiaries with a ration size of 44 grams per day over a 180-day school year yields a 21,806,166 pound distribution requirement, although actual distribution deviated substantially from this.

PROJECT DESIGN AND POLICY IMPLICATION. The common critical factor of the two programs is the establishment of local production facilities which has had a favorable impact on development of local market demand for indigenously grown soya and maize crops. The Thriposha program has generated effective demand for the services provided by MCH centers as well as contributing to improved nutritional status, both of which are consistent with national health care objectives. The school biscuit feeding effort is meeting a critical need, particularly among the extreme poverty stricken segments, although impact is difficult to assess because of diverse variables. Cost analysis of both programs indicate that each may be carried on its own merits at affordable levels of investment and return with decreasing reliance on imported components and foreign aid. Several issues need airing in terms of their potential impact on solving the problem of malnutrition nationally. Foremost is whether the programs should be expanded and foreign (AID) assistance continued to make expansion feasible while indigenously produced ingredients are used to meet existing program level demand. A second consideration is the implication of a large and perhaps growing dependency among the poor on the products available through these programs. A third is the advisability of commercially marketing either or both of the products in terms of GSL's capability to continue price supports to growers of soya and maize and to regulate pricing structures in order that the needy beneficiaries continue to have access to the products.

**RECOMMENDATIONS.** There are a total of 14 specific recommendations offered in the report. The most important are summarized below:

1. AID and GSL should support expansion of the Thripasha program through MCH clinics and commercial outlets. AID should increase its level of P.L. 480 support and GSL should increase the percentage of locally grown commodities in the formulas of the two products.
2. GSL's plan to expand school feeding island-wide should not be supported by P.L. 480 Title II, but AID should maintain current levels of commodity support.
3. The operating reserve on raw materials imported from the U.S. should be raised beyond the current 5% so that sufficient raw materials may be stored at the plant thereby alleviating the problem of production halts due to late arrival of shipments.
4. The planned phase out of gifted ICSM (protein) for the Thripasha program should be accompanied by the addition of powdered milk to keep the protein quality equivalent.
5. Targeting eligible preschool children (those suffering from second and third degree malnutrition) can be strengthened by checking that physicians and medical personnel at MCH clinics properly follow recommended procedures. This should include the training of mothers to assist in filling out and interpreting the "road-to-health" charts.

This report was conducted and written by William D. Drake, Ph.D. and Team Leader; John N. Gunning, USAID/Sri Lanka; Dr. Abraham Horwitz; Roy I. Miller, Ph.D.; Harold L. Rice Ph.D.; and Gnani Thenabadu, M.B.B.S, M.P.H.

## COMMUNITY-LEVEL NUTRITION INTERVENTIONS: AN ARGUMENT FOR REFLECTION-IN-ACTION

**PROBLEM & OVERVIEW.** Conventional approaches to analysis of community-level nutrition programs do not eliminate the indeterminacy of analytic results. This is because data may be inaccurate or inconsistent, because the measures or the measurement methods may produce misleading results, and, most importantly, because there is often a lack of information about the local context of the interventions. This lack of information effectively precludes the elimination of competing explanations of outcomes of interventions. In the analysis of social intervention, three questions are of paramount importance: 1) is a particular intervention having the desired effect; 2) how can any given intervention be improved in design and/or implementation; and 3) can the lessons of a single attempt at intervention be translated into better program designs in the future?

The need for developing a new approach is a result of several years of first-hand experience in the analysis and evaluation of community-level health/nutrition interventions as well as larger scale government programs featuring service delivery at the local level.

### FINDINGS.

1. Twenty five community-level nutrition interventions were sampled of which eight approximated the minimal criteria necessary to be considered experimental interventions. These eight include programs in Colombia, Brazil, Honduras, Indonesia, Thailand and India.

2. In the nutrition field, the response thus far to difficulties encountered in applying quasi-experimental concepts in research and/or evaluation research on nutrition interventions has been to try for better controls or more complicated experimental designs. In fact, it may not be possible to remove the several sources of indeterminacy which have been perceived or encountered. Thus the practitioners of the 'rigorous experiment' model may grow frustrated.

3. In community situations in developing countries, instability, uniqueness, unpredictability and dependence on local information systems prevent application of the model of 'rigorous experiment' and call for the 'reflection-in-action' approach. The term 'reflection-in-action' calls attention to the fact that inquirers must continually re-examine, in the midst of action, their framing of the problem of malnourishment, their models of the phenomena associated with malnourishment, and their strategies of intervention.

4. In community situations of this kind, 'reflection-in-action' is equally appropriate as a model of experimental research and as a model of effective intervention. Because each community situation is unique, it is impossible to predict what intervention is likely to be effective. The design of effective intervention must be arrived at through situation-specific inquiry. An effective nutrition intervention at the community level must take the form of on-the-spot, context specific experimental inquiry.

5. Given a model of intervention and experiment as 'reflection-in-action,' it is necessary to revise the prevailing view of the proper relation of research to practice from one advocating separation of the two to one urging their mutual support. Because the community situation is likely to be unstable, no intervention, however effective it may be initially, is likely to be effective for very long. If an intervention is to be effective over the long term, it must be continually revised in response to detection of changes in the situation, including changes triggered by the intervention itself. Practice should be carried out by practitioner-researchers and research-practitioners.

6. Confounding shifts in the context of the experiment are not predictable before initiating intervention. After intervention, when shifts have been discovered, it is unlikely that their confounding effects can be discriminated on the basis of data then available. It is possible, however, to detect such shifts in the process of experiment. Those most likely to do so are the practitioners and subjects of intervention.

PROJECT DESIGN & POLICY IMPLICATIONS. 'Reflection-in-action' names the comprehensive process by which inquirers respond to the detection of surprising outcomes by surfacing, criticizing, restructuring and testing the context-specific frames, theories and strategies which they have brought to the situation. Although the emphasis of this paper has been on the health/nutrition field, the argument for 'reflection-in-action' is easily translated into other arenas of social intervention.

CONSTRAINTS, LIMITATIONS AND RECOMMENDATIONS.

1. 'Reflection-in-action' aims to produce experimentally valid propositions only for the community context in which an intervention is undertaken and only within the bounds of a particular circumstance of that context. Because interventions are seen as context-specific, there is no attempt to describe relationships between features of intervention, context, and outcome which are generally valid across contexts. The task is not to remove an influence but to observe and understand its impact.
2. There is no guarantee that, in any given context, 'reflection-in-action' will converge on any universal interpretation of an outcome. The proliferation of experiments which may derive from shifts in context-specific assumptions may, in fact, multiply sources of analytic indeterminacy.
3. In practice, in real situations, there can be, and often is, a mixture of both 'rigorous' and 'reflection-in-action' approaches.

This discussion paper was written by William D. Drake, Roy I. Miller and Donald A. Schon.

## TECHNICAL RESOURCES - BANGLADESH

PROBLEM & OVERVIEW. The External Resources Division (ERD) of the Ministry of Finance (MOF) of the Government of Bangladesh (BDG) is responsible for managing a wide array of concerns relating to foreign donor activities. Within ERD, there is an American Desk which has responsibility for processing USAID Project Assistance and Technical Resource documentation requirements. But the American Desk has a limited staff, most of whom are without development oriented training or experience. This limits ERD's control over the USAID program to monitoring communications and resource flows between AID and recipient ministries.

U.S. ASSISTANCE. The purpose of the Technical Resources Project (No. 388-0027) is to increase the BDG's ability to respond effectively to development problems. This is to be accomplished by improving the policy research and project development, management, and evaluation capabilities of BDG agencies engaged in agriculture, rural development, and women's development programs. To enable ERD to perform more efficiently, the quality and content of the communication and contact between USAID and ERD/MOF was substantially improved. The AID Project Officer now meets with the Deputy Secretary, ERD, for regular reviews. A Planning and Monitoring Cell for USAID projects was to be set up within the ERD as well. The original grant was approved in 1979 with initial funding at \$9.5 million. This agreement was amended and the project extended for two more years in July, 1982 with an additional \$1.5 million in funding added.

PURPOSE OF EVALUATION. The purpose of this evaluation is to measure performance and provide guidance for future implementation. This is the second evaluation and covers the period October, 1980 to June, 1982. The Project Officer first developed an Issues Paper which was circulated for review and comments within the USAID Mission and ERD/MOF. An evaluation review meeting between USAID and ERD representatives was then held in which comments were discussed and decisions reached.

### FINDINGS.

1. ERD has established and staffed a Planning and Monitoring Cell. Although not yet fully operational, it will manage a fair proportion of the workload involved in dealing with P.L. 480 and other USAID project monitoring requirements and will improve overall efficiency in ERD's American Desk operations when it is.

2. The pace of technical assistance sub-project activities has increased satisfactorily in the past year. One major sub-project was completed. Ten are now in process. Several others have been proposed.

3. Ninety-eight trainees completed courses under the First and Second Priority Lists. A Third list has been developed and approved by both ERD and USAID. According to a survey, the majority of returned participants are posted to assignments in which their training is relevant.

4. The process of nominating women for international training slots continues to be unsatisfactory. Only 15% of the 27 slots have been filled. The Women's Affairs Ministry (WAM), which has primary responsibility for managing the Women's Training component, continues to perform poorly.

PROJECT DESIGN & POLICY IMPLICATIONS. There are several factors critical to achieving the desired outputs of this project. One of these is the role of WAM in implementing the Women's Training component. WAM was unable to execute the project agreement, despite being given substantial resources. However, ERD and USAID have now worked out a compromise arrangement with WAM and this component may be expected to move towards partial fulfillment of expectations within the extended timeframe of the project. Of more fundamental concern is that of the structural position of ERD within the MOF and BDG. Its resource and staff limitations provide it with little scope for an active project management role, unlike that of organizations associated with line ministries. With better understanding of these limitations, it is possible to manage the project jointly with ERD to achieve satisfactory results. However, as priorities and emphasis shift within the USAID Mission and BDG, the Technical Resources Project must develop flexibility to adapt to changes in direction. As initiatives falter due to external factors, a means for phasing them out and de-obligating funds more rapidly needs definition.

RECOMMENDATIONS.

1. USAID and ERD should explore possibilities for ERD staff to become more familiar with USAID and AID/W operating procedures and reporting requirements.
2. USAID should monitor sub-project activities more closely and establish criteria and procedures for de-sub-obligation where necessary.
3. USAID and ERD should redevelop a women's training plan for overseas participants.

This evaluation was performed by M.A. Matin Lusker, Deputy Secretary, ERD and H.S. Plunkett, Research/Evaluation Officer, USAID.



## EVALUATION SUMMARY OF THE PROFESSIONAL RESOURCES DEVELOPMENT I PROJECT - INDONESIA

**PROBLEM & OVERVIEW.** The Government of Indonesia (GOI) identified the need to develop the potential of personnel in key development positions who plan, manage, implement and evaluate its programs. A chief method of their development is through long term degree, short-term training programs abroad and in-country management training programs. Fields in which education and training are sought include public administration, public finance, financial management, economic development, business administration, banking, accounting, tax administration, customs administration, investment negotiation, international law, etc. Trained personnel are to have substantial impact upon the management and the planning capability of their respective organizations, one which can be clearly measured sometime after completion of their training.

**U.S. ASSISTANCE.** A six-year Project Grant Agreement titled Professional Resources Development I (PRD-I) (No. 497-0261) was approved in May, 1978. This Agreement allocated \$5.9 million of AID funds and \$3.4 million of GOI counterpart funds to the provision of 160 person/years of long-term participant training; 465 person/months of short-term training; and the in-country training of 2000 managers. A grant of \$300,000 was allocated for the acquisition and development of training materials to support the in-country training. In 1980, ten person/years of long-term advisory services were programmed in support of this in-country program. Participants for all components were to be selected from three GOI agencies: BAPPENAS, LAN and Department of Finance (DOF).

**PURPOSE OF EVALUATION.** The objective of this evaluation is to measure quantitative and qualitative progress made during the past two years against planned targets and to develop joint strategies for the improvement of project implementation. The period evaluated is from March 1980 to March 1982.

### **FINDINGS.**

1. PRD-I funds allocated for long-term training have already been fully programmed and to date 61 long-term participants have been enrolled in Masters and Ph.D. courses. Of the planned 160 person/years, 124 have been or are being utilized. Since 1978, inflation was responsible for increased person/year costs and decreased numbers of planned person/years of training. The originally planned amount of \$1,920,000 was increased, in 1980, to \$2,247,280. This restored 16 person/years of long-term training. Another 12 were restored through outside funding. Overall, the reduction of output will be about 30%.
2. Seventy-five short-term participants (186 1/2 person/months) have been programmed for short-term study. The DOF has programmed all of its allocated short-term training. As with long-term training, inflation has increased U.S. costs, by 90% in this case. However, no additional resources were programmed to make up the deficit. In fact, short-term funds were cut to increase long-term resources. Overall, the reduction of output will be about 53%.
3. In-country management training has been adequately developed and there has been progress towards institutionalization. The target of 2000 DOF managers trained will be exceeded. Thirty-two DOF part-time and full-time trainers have been developed. Seven hundred and thirty DOF officers and managers completed management seminars. LAN is developing 20 trainers. BAPPENAS has produced a manpower development and training requirement plan.
4. The quality of graduate education is regarded as very good, primarily because of the excellent universities which the participants are attending. Some returned short-term participants have been interviewed. Most stated their training was relevant and effective. The impact of long-term participants' education and training on their specific organizations probably cannot be effectively evaluated for at least six months after their return.

5. The programming of the \$300,000 for the acquisition and development of management training materials has been postponed. When there is a clear understanding of the type of materials required to support in-country management training and after long-term and short-term participants have had opportunities to have an impact upon the development of training materials, a strong effort will be made to program these resources. This will be in the third year of the project.

6. The placement of long-term advisors is on schedule after a poor initial start, but the placement of short-term advisors has not proceeded according to plan. Ten person/years of long-term advisors have been programmed and five person/years will have been consumed at the time of this evaluation. Some change in the original utilization plan for long-term advisors has been suggested. Only about seven person/months of short-term advisory services have been programmed so far.

7. Considerable progress has been made toward the end of project status conditions as outlined in the log-frame of the project paper.

PROJECT DESIGN & POLICY IMPLICATIONS. Project assumptions and priorities remain essentially unchanged. However, GOI has expressed a strong desire to give greater emphasis to in-country training than was reflected in the original Project Paper and the Department of Finance is planning the training of about 4000 officers over the next 3 to 4 years. Inflation has been a critical external factor having a significant negative effect upon the actual level of project achievement. Although the actual rate of inflation would have been difficult to forecast accurately during preparation of the Project Paper, the fact that inflation would affect the overall project budget to some extent could have been predicted and should have been taken into consideration at that time. Although additional resources were allocated for long-term academic training, these resources were taken from other line items and, overall, no additional resources were added to the project. The project thus is unable to meet its quantitative objectives, and this situation will ultimately impact adversely on the project's stated purpose, professional resource development.

#### RECOMMENDATIONS.

1. Additional resources should be allocated so that the number of person/years or person/months of training could be restored as originally programmed.

2. It is recommended that the original utilization plan for placement of long-term advisors be changed so that three full-time consultants are available for the first two years and two full-time consultants for the last two years. This would not change the total number as originally planned (10 person/years).

3. A strong effort should be made to program the resources allocated for the acquisition and development of management training materials in the third year of the project.

This evaluation was conducted by Bintoro Tjokroamidjojo, Chairman, Steering Committee, and Jerry Tarter, Project Officer, USAID/Indonesia.

A FINAL ASSESSMENT OF THE INTEGRATED NONFORMAL EDUCATION TO PROMOTE RURAL DEVELOPMENT PROJECT -  
NEPAL

**PROBLEM & OVERVIEW.** About 95% of Nepal's 15 million people are illiterate. Illiteracy is higher among women than men. Nepal's education system educates the youth in a hierarchical system culminating in college and university degrees. However, the characteristics of a rural population in a desperately impoverished environment make school attendance increasingly unlikely as a student progresses from primary to secondary levels. Often girls are denied access to even a primary education because parents have defined work roles for them at an early age and because it is held that education is unimportant to the adult role which they are expected to assume. As a result, much of the adult female population remains illiterate and even their male counterparts are not that far advanced. The Government of Nepal (HMG/N) has recognized that illiteracy is a key problem and obstacle to achieving many developmental goals. In an effort to solve this problem, a program of adult education has been initiated. HMG/N uses several vehicles to implement this program including the Ministry of Education (MOE), The Nepal Women's Organization (NWO) and the Research Center for Education Innovation and Development (CERID). These organizations are assisted by the bilateral and multilateral developmental assistance agencies, such as UNICEF and UNESCO, and by international Private Voluntary Agencies (PVOs). One of the research focuses of the adult education program has been to devise innovative ways of teaching adults and, simultaneously, providing them with information and knowledge of developmental goals and solutions.

**U.S. ASSISTANCE.** The Integrated Nonformal Education Project (INEP), (No. 498-0251), was a three-year effort to develop and test nonformal materials and teaching approaches and to arrive at some preliminary indications of their effectiveness in the context of rural Nepal. It was planned that those measures which were satisfactorily and successfully tested through this project could be used on an expanded basis by the MOE. INEP was administered by CERID with assistance from World Education, Inc. (WEI), an international PVO. INEP stressed the use of action programs, rather than passive learning activities. It was hoped that the program would help adult learners develop as individuals and as productive participants in their own communities. Project sites were established in 20 village centers in four districts, one each in the four development regions and major geographical areas of Nepal.

**PURPOSE OF EVALUATION.** The purpose of the evaluation was primarily to collect feedback for the further development of materials and procedures. The assessment committee looked for the "direction" of change, concentrating less on the "magnitude" of change. The team was asked to assess the methodology along with the philosophy and objectives; to examine the materials used, and to assess the accomplishments, shortcomings and problems. The project was first evaluated by Dr. Noreen Clark in October, 1980.

**FINDINGS.**

1. The teaching methodology involves facilitators and uses five approaches to learning which are interrelated and mutually reinforcing. The guiding philosophy is the belief that the individual can make decisions; that the good decision is the decision that is appropriate to the individual and his society. The learning sessions attempt to establish an encouraging atmosphere so that the individual can learn, generate ideas and plan.

2. One of the main factors contributing to program achievement is the simplicity and variety of the materials and methods used. These materials are designed to either stimulate creativity, critical thinking, and planning activities, or to provide technical information. Issues or topics used are selected from conditions, problems and concerns of communities and of the learners. Participants are "distanced" from intimate topics through visualizations such as serialized pictures, flannel figures, etc.

3. INEP has trained more than 90 facilitators in 90 INEP centers in 9 districts. However, the project's philosophy, methodology and materials used are unfamiliar to many people involved in educational programs in the country, and the cost of the program is comparatively high.

4. Field data support the effectiveness of the project's approach. Participants made significant gains in reading tasks; knowledge of family planning; knowledge and use of pit latrines; belief in supernatural sources of illness vs. scientific sources; class attendance and reason for program participation; and knowledge of development goals and how these may be realized.

PROJECT DESIGN AND POLICY IMPLICATIONS. The program has developed and tested a variety of flexible, open ended materials and methods and provided an alternative education that can be selected, adapted and applied both to other nonformal programs and even to formal education at the lower levels. The project staff and participants from MOE, CERID, and WEI took a bold step in selecting and developing innovative philosophy, methods and materials. INEP is among the first educational programs to recognize and believe in the abilities and potentials of the individual. However, the process of integrating this program in the MOE has not been sufficiently developed and unless the enthusiasm for the program's philosophy and goals, which has been sustained and nurtured by the initiating agencies, is maintained, it is unlikely that the MOE bureaucracy will adapt this unorthodox concept to learning in the Nepalese context. Programs of this sort imply requirements of supervision, physical access and flexible learning time (mainly at night) which demand dedicated technical and professional staff to train facilitators and supervisors, monitor and supervise them, develop new materials, field test and adapt them to different situations, and to constantly evaluate the program. The values and achievements of the INEP need to become better known and the cost reduced to levels at which HMG/N can support from its own resources if its legitimate importance is to affect future HMG/N educational policy. The first step has been taken by shifting INEP to the MOE.

#### RECOMMENDATIONS.

1. The philosophy developed under this project should be continuously subjected to re-examination and further improvement.
2. Action programs should be emphasized as a method of effectively involving local community participation.
3. The program should engage more technical and professional staff to train facilitators and supervisors and to develop and evaluate materials and project progress.
4. HMG/N should be encouraged to provide adequate support (financial and technical) to the program.
5. The nonformal education program and the functional literacy program should be integrated and reinforcing as the former is made a regular program within the MOE.
6. Action-oriented research on nonformal education should be conducted so as to provide feedback on various aspects of the program.

This evaluation was conducted by Dr. Prem Kasaju, Chairman; Dr. Kowit Vorapipatana, Consultant for the Assessment; Sri Ram Lamichhane, Project Coordinator, INEP, MOE; Dr. Chuda Nath Aryal, Reader IOE, Tribhuvan University; Keshab Nepal, Under-secretary, NEC; Rajbhai Sakya, Under-secretary, MOE; and Mr. David Walker, Resident Advisor, World Education, Inc. At the time of the assessment, Mr. Thomas B. Keehn, Senior Advisor, WEI, was also present and assisted in the committee's deliberations.

## EVALUATION OF AGRICULTURAL DEVELOPMENT COUNCIL OPG-TRAINING NEPALESE IN AGRICULTURAL RESEARCH AND DEVELOPMENT PLANNING - NEPAL

**PROBLEM & OVERVIEW.** Approximately 95% of Nepal's population is directly or indirectly involved in agriculture and 57% of its GNP is derived from that source. Nepal also depends upon agriculture as a source of more than 80% of its export earnings and for import substitution. Although Nepal is now a food sufficient country, its population is growing at an annual rate of 2.6%. Nepal's economic growth and its agricultural development have lacked a reliable and accurate information base upon which to formulate policy and make planning decisions. The Ministry of Agriculture needs three primary sources of information to carry out its policy formulation and planning functions. One of these is accurate statistics on the progress of present and completed programs and projects. Another is agricultural research and field trials on new varieties and strains of crops and animals, and types of agricultural practices. A third is sound social science research focused on the agriculture sector. Foreign aid and domestic resources have been used to develop the first two sources of information, but the third source has received very little attention or assistance.

**U.S. ASSISTANCE.** The Agricultural Development Council (ADC) OPG-Training Nepalese in Agricultural Research and Development Planning" (OPG 498-0251) was approved in September 1976 as a five-year project. Funding was \$1,004,953 from USAID, \$450,000 from ADC and \$128,300 from the Government of Nepal (HMG/N). This project focused on developing HMG/N's capacity to conduct social science research. The purpose of the project was to support the training of Nepalese in agriculture research and development planning and to assist HMG/N to develop the institutional capacity to make more productive use of its human and physical resources. The Sector goal was to expand agricultural production by making possible the use of new technical knowledge that is becoming available through the Integrated Cereals Project. Specific objectives were (1) to initiate research on selected problems of agricultural and rural development, and (2) to expand the capacity of Nepalese institutions to conduct research on which to base public decisions.

**PURPOSE OF EVALUATION.** The purpose of this evaluation was to assess the impact and effectiveness of this project and to provide information that would assist in identifying appropriate activities for a follow-on project. Interviews with USAID/Nepal and Project staff, with participants and HMG/N officials, and with other donor representatives were conducted. Project files and related documents were reviewed. The evaluation took place from January 24 to February 26, 1982.

### FINDINGS.

1. The degree training program produced twice as many Masters graduates and but one less Ph.D. than originally planned. Thirty-three people received Masters degrees and two received Ph.D.s. About 4% of the degree trainees were women. All degree graduates returned to Nepal and most are still in positions that require research skills.

2. Non-degree training of 101.5 person-months of non-degree training was provided which is 66% more than originally planned. Non-degree training was most successful when focused on an immediately useful skill. About 25% of the trainees were women.

3. The project was cost-effective. No additional funds had to be allocated to achieve the major results. Other activities completed under the program included the provision of 10 person-years of technical assistance, 1000 person-months of training, seven in-country seminars, short-term trips abroad for conferences and seminars for 11 Nepalis. Nine research studies were conducted in-country and 35 research papers and seminar reports were published.

PROJECT DESIGN & POLICY IMPLICATIONS. Overall, the selection process used resulted in well qualified candidates for degree training. The ADC representative was effective in overseeing the selection process and managing their timely departure to the U.S. Thus the project did not fall behind schedule as is so often the case. The fact that all degree candidates returned to Nepal and were able to apply their new skills is attested to by their involvement in current policy and planning activities in the Ministry of Agriculture (MOA). However, USAID and MOA officials need to address the question of the most productive role for the returned degree holders. At present there is little recognition of the value of the degree training: 19 new Masters holders returned to their same jobs and of these only eight achieved a higher grade. This may lead to job dissatisfaction and eventual departure from government service. The real weakness of the approach that this and similar technical resource development projects experience is the lack of a well-defined agreement or understanding as to how the individuals will contribute to developmental goals upon their return. Hopefully, in this case, the MOA will use these skilled people to continue to improve its quality control over social science research by enforcing high standards for various research studies and reports generated by affiliated agencies. In the long run it is the adoption of an astute personnel policy by HMG/N that will determine the real success of this project.

RECOMMENDATIONS.

1. The MOA should make a strong commitment to social science research by funding a planned program of research that answers MOA's fundamental policy and planning questions and utilizes the skilled manpower resources this project has developed. This commitment should be clearly stated in future projects which USAID may initiate or support with the MOA.
2. HMG/N should continue this project of degree and non-degree training in social science research and should support a strong, valid selection system in order to secure the best possible candidates. Degree program applicants who are almost qualified should be given remedial training as this might increase the number of qualified women.
3. MOA and HMG/N should consider increases in salary and promotion in grade levels for successful candidates and/or returned graduates. A special fund should be established to permit Ph.D. candidates and/or graduates to pursue their own research and to attend international conferences germane to their professional interests.
4. Non-degree training that focuses on skills that are immediately useful or that expand HMG/N's existing program should continue. This might increase the number of women who participate and broaden participation to other MOA agencies.

This evaluation was conducted by John P. Comings, Ed.D., Consultant, Center for International Education, University of Massachusetts, Amherst; and Lawrence B. Darrah, Ph.D., Senior Associate, DEVRES, Washington, D.C.

## INFORMAL ASSESSMENT OF THE EDUCATIONAL SYSTEM OF PAKISTAN

PROBLEM & OVERVIEW. During the last decade, Pakistan has not emphasized education of its population as a development need. In 1966, the Government of Pakistan (GOP) was spending 1.2% of its GNP on education, a relatively low figure at that time. By contrast at that time, Egypt was spending 5.0%, Sri Lanka, 4.0, and India, 2.7% and Iran, 2.6%. In 1980, an estimate of education expenditure in Pakistan was 1.5%. This compares unfavorably with Malaysia, 5.0%; Sri Lanka, 4.9%; South Korea, 3.4%; Burma, 3.1%; Thailand, 3.0%; and Indonesia, 2.2%. If recurrent expenditures only are considered, and these include teachers' pay, Pakistan's current outlays represent only 1.1% of the GNP in Pakistan in 1980. As a percent of government expenditure, education accounted for about 5.5% in 1980; this represented a fall from 6.45% in 1978, the highest rate in that decade. Not only has total public support of education been reduced, but allocations within the education sector have favored liberal arts education at the secondary and post-secondary levels over primary education. Despite the presence of a large number of elite primary schools, the lack of selective academic meritocratic standards in admitting students to colleges and universities has resulted in poor standards in basic education in the higher levels as well.

U.S. ASSISTANCE. [THIS ASSESSMENT DOES NOT DEAL WITH AN ESTABLISHED U.S. ASSISTANCE PROGRAM OR PROJECT. IT IS A GENERAL ASSESSMENT OF THE EDUCATIONAL SYSTEM IN PAKISTAN.]

PURPOSE OF EVALUATION. The Contractor (Contract No. ASB-0470-S-00-2500-00) was to analyze and assess the following: (1) GOP's intentions and directions regarding the education sector as discussed in interviews and revealed in reports, such as the Annual Development Plan and the upcoming Sixth Five-Year Plan; (2) the major constraints in the education sector including policy, management, institutional, cultural, and financial factors; (3) other donors' roles and contributions to the education sector.

### FINDINGS.

1. Proposed allocations of the current Five-Year Plan (1978-83) vs. actual provision of funds continues a trend of underfinancing education. The fifth Five-Year Plan specifies that educational expenditures would rise to 3.1% of the GNP by 1983 from the current range of 1.5% to 2.0%; however, the evidence shows that this was an unrealistic goal. The record shows that since 1978, Plan Allocation vs. Actual Provision averages a 3:2 ratio. Actual utilization of development money allocated to primary education in the first three five-year plans was 37%, 27% and 36% respectively. In only two of the last six years did primary education receive its approximate allotted share. In only one of these six years did the universities fail to achieve their allotted share. (In most years, university expenditures exceeded the allotted share by a substantial margin.) Vocational education received about 10% of all education money.

2. The current Five-Year Plan appears intended to create a system of near universal primary education for males, while leaving over half the females out of school. In 1977-78, 73% of age 5 to 9 males were enrolled in primary schools. By 1983, enrollment was planned to be 90%. The proportion of age 5-9 females enrolled was projected to rise from 33% to 45%. Forty-five percent of males age 10-12 were to be enrolled by 1983, but only 15% of females. Twenty-five percent of males age 13-14) were to be enrolled by 1983, compared to only 9% of females. The GOP's announced attention to conduct primary education in the Mosque and to employ the Imam as a teacher of Classes I-III will act as a new and major constraint for education of the females and will, in turn, result in the training of fewer female teachers.

3. The announced shift in priorities toward primary education and vocational and technical training is hard to detect in terms of the quantitative projections of the GOP. The share of primary education in the development budget for education in 1977-78 was 26.8%; during the current plan it was forecast as 31.6%. The share of higher education in the development budget for 1977-78 was 26%; in the current plan period, it was forecast as 20.1%. Recurring expenditure in primary schools represented 38.9% of the total recurring outlay for education in 1977-78; higher education accounted for 21.3%. For the current plan period, primary education's share is estimated as 17.2% and higher education's share as 18.5%. Although the enrollment capacity for vocational institutions is projected to rise by 100% over the current plan period, the projected number of graduates from such institutions in 1982-83 is only 5,900 in a country of 87 million people.

4. Despite the incorporation of several significant ideas in the 1982-83 Special Development Programmes document, the total of proposed actions implies the maintenance of the traditional pattern of the underfinancing of primary education, discrimination against females, high rate of student wastage, and an over-emphasis on liberal arts education. The significant ideas include an assertion of high priority for primary education, earmarking of development funds for primary education, decertification of primary school teachers and establishment of a flexible salary policy in primary school teaching. These are countered by the major emphasis placed on Mosque education, dropping scholarships for girl primary students, and dropping displacement allowances for female primary teachers.

5. Contributions of the other donors, with the exception of the I.L.O. and the World Bank, are not very impressive. The World Bank has two main projects in the education sector. One is an experimental program in primary education intended to bring more females into teaching, reduce student wastage, provide in-service training to teachers and strengthen management by providing a "learning coordinator" for each of 10 schools. The second project funds the construction, furnishing and equipping of the National Training Development Institute, six new vocational training centers and 31 existing training centers. It also provides for furnishing and equipping the national and provincial training board secretariats, consumable materials, salary increments and staff training for all 37 vocational training centers. The cost of this project is \$41.48 million of which \$25 million is an IDA credit and the rest to be met by the GOP. The ILO is funding a three-pronged program of training trainers, improving and expanding apprenticeship programs and improving in-plant training programs. It has sponsored programs for training rural women in poultry raising, fruit and vegetable preservation and is working on a program for women in collaboration with the Small Industries Ministry in the province of Sind.

POLICY IMPLICATIONS. Econometric analyses has established relationships between education and economic development which demonstrate links between farmer literacy and farm productivity, female literacy and improved maternal child healthcare and family planning practices among other findings. It thus seems appropriate that major donors reestablish a high priority for educational investment, provided host governments themselves are willing to place greater emphasis on primary education, functional literacy, education of females and occupational training. In Pakistan's case, there is a significant lobby in the GOP that has succeeded in reasserting a commitment toward improved primary education and vocational/technical training. This policy of reassertion is, however, constrained by a tradition of rhetorical support and actual underfinancing as well as the Islamic Fundamentalist mood of the current government. The price tag for universal primary education goes up with population growth. This, in turn, dictates that if Pakistan is to achieve basic education of its people, it has to make substantial progress now. However, the GOP is impeded in carrying out effective policy shifts towards modern goals by three conditions. First, there is an unwillingness to make a realistic assessment of the financial costs and then to act boldly on the basis of that assessment. Second, there is deep uncertainty about how far and fast to move in regard to the education of females, an uncertainty reflecting deep cultural division in the country. Third, there is an uncertainty as to how to improve vocational education. In sum, the situation with regard to



policy constraints is better than it has been for a long time if only because the country has reached a more critical point in its development. Judgements regarding AID's involvement in the education sector of Pakistan are premature at this point and the following recommendations demand further investigation.

#### RECOMMENDATIONS.

1. Examine the Sixth Five-Year Plan (not yet drafted at the time of the evaluator's visit) in terms of the priorities revealed in its quantitative projections, all of which should be regarded as super-maximum estimates for primary education and vocational training.
2. Improve the access of girls to primary education, including such measures as reestablishing scholarships for students from rural and slum areas.
3. Develop measures and a program to increase the number of female staff at the primary school level.
4. Improve and extend vocational education of women in a systematic and long range manner.
5. Improve the vocational education of males using the model of the Pak-German Technical Training Center in Moghalpura, Lahore.
6. If AID enters the education field, it should be in collaboration with the World Bank and the I.L.O.

This assessment was conducted by Charles S. Benson, Ph.D., Department of Education, University of California, Berkeley in September, 1982.

EVALUATION REPORT FOR THE FIRST TWO YEARS OF THE HILL AREAS COMMUNITY BASED EDUCATION PROJECT-  
THAILAND

PROBLEM & OVERVIEW. In recent years the Royal Thai Government (RTG) has become concerned about the impact of hill tribe agriculture on Thai natural resources such as forests and watersheds, the illegal raising of opium, the increasing tribal population and its potential security threat to the nation. The Hill Tribes Development Plan for the Period of the 5th National Economic and Development Plan (1982-86) outlines the problems caused by "the traditional life style and livelihood of the hill tribes" and calls for their eventual permanent resettlement and integration into mainstream Thai society. The economic status of the 400,000 hill tribe peoples is considerably lower than that of the average Thai. Most are not functionally literate in Thai and are frequently at a disadvantage in communicating their needs and requesting government services, marketing produce, purchasing goods, etc. While RTG's various development agencies have stated their policy commitment to respect and protect the cultural uniqueness of the hill tribes during the process of integration into the larger society, its programs are designed to stimulate a sense of loyalty to Thailand and to promote occupational roles benefitting the country. Numerous agencies are involved in educational endeavors in the hill tribes areas including three departments within the Ministry of Education (General Education, Primary Education Commission, Nonformal Education.) The Hill Areas Community Based Education Project is one of three current education projects within the Department of Nonformal Education.

U.S. ASSISTANCE. In March, 1980, a five year project grant agreement (No. 493-0297) was signed between the RTG and USAID. AID bilateral funding amounts to \$1.6 million and RTG counterpart funds are \$958,000 for a total of \$2,558,000. The Project Activity Completion Date (PACD) is February 28, 1985. The Project Paper calls for the development and testing of a community-based education model which will provide non-formal education activities for both children and adults in 6 sites involving about 36 villages. End of Project Status (EOPS) will be indicated by the following: community-based non-formal education programs and staff operating in all sites; community decision making and participation in all phases of program development and implementation; employment of village manpower and material resources in development of individualized village education programs; initial steps taken to provide for post-project replication and expansion of availability of the education model; community and individual participation in the educational activities in each project site; and enrollment of about 60% of village children and 30% of adults in the educational programs. The sector goal is the provision of educational opportunities in a context of individual and village level decision making, thereby contributing to the improvement of the quality of life of disadvantaged people residing in the remote hill areas of Thailand.

PURPOSE OF EVALUATION. The primary tasks for this evaluation were to assess the project's progress, identify problems, and make appropriate recommendations in the following areas: (1) project objectives and approaches; (2) project management; (3) curriculum and materials development; (4) institutionalization and replication of project activities; and (5) adequacy of beneficiary participation in project activities. This evaluation took place after two years and three months of the five year implementation period. Team members traveled to five of the six clusters of villages, interviewed all head teachers and 46 individual teachers, observed classes, witnessed the range of nonformal teaching beyond classroom work, and interviewed some village leaders and villagers. Officials and staff of the Department of Nonformal Education and other Departments of the Ministry of Education were met as well as personnel of the Department of Technical and Economic Cooperation, the Division of Hill Tribe Affairs, the Department of Public Welfare, and AID.

## FINDINGS.

1. The Project is too ambitious and few of the objectives will be accomplished, although all appear to be "realistic." Two, however, conflict in that the project has placed more emphasis on "basic education" than on village-centered aspects of the program. Some progress has been made towards the achievement of all the original goals. Volunteer teachers are teaching in 44 villages in six clusters. The Secretariat has been established. The curriculum has been completed.
2. The loose democratic form of organization in the village clusters is excellent from a creative and village-centered educational viewpoint, but has some weaknesses in terms of line administration. There is a communication gap between the Secretariat and most other units including the Provincial and District Education Officers and Hill Tribes Welfare Development Centers. This makes for poor coordination, weak public relations and will cause difficulties in later institutionalization of project activities. Personnel and financial management have been particular problems.
3. A six-year centrally-planned basic education curriculum has been developed. This is a major achievement although the whole curriculum was designed to fit a prescribed set of specifications. However, this has been at the expense of development of other more individualized and village-centered nonformal education programs, such as health, agriculture, village-level construction, community development, personal counseling and teacher involvement as village advocate, which have been given much lower priority at all levels.
4. Some aspects of the program, such as the cluster concept, are already being replicated under other programs. Others, however, like the development of individualized village-planned, implemented and managed education have yet to be accomplished within the project itself. Techniques used in developing and testing the basic education literacy program may well be replicable in other areas. Foreign support and the image (and reality) of the project's comparative wealth and relative independence of the Secretariat may hinder replication and institutionalization.
5. Beneficiary participation has been more adequate in implementation than in planning or management. Villagers are participating in a wide variety of less formal and nonformal project activities. They decided where education centers would be built. They participate in the medical component. In many villages, people have proposed problem areas to teachers and, therefore, participated in the planning of nonformal activities. On the other hand, they do not participate in deciding what is to be learned, or how it is to be learned.
6. It does not seem likely that the EOPS figures of 60% of village children and 30% of adults will be achieved. At present, in the most successful cluster, attendance was running from 10% to 30% among the villages. This is a cluster in which some of the most dynamic and dedicated personnel have been involved for over six years.

PROJECT DESIGN & POLICY IMPLICATIONS. The high priority of the basic education program is at the root of the conceptual gap between what is called for in the Project Paper and what is happening in the field. Most of the classes observed were not learner-centered non-formal education but teacher-centered rote memory of letters and numbers geared to achieve a minimum basic education in Thai. Thus, the project would have to be classified as formal education. The individualized village-centered program called for in the Project Paper is lacking. This conclusion is substantiated by the Ministry of Education's endorsement of the curriculum developed by the Secretariat wherein completion is equivalent in "all rights and privileges" to the standard six year elementary curriculum of the Thai education system. The whole curriculum was designed to fit a predetermined, prescribed set of specifications. As recounted to the Team during its visit to the Northern Regional Nonformal Education Commission office, this means 20% fits the needs of the hill people; 20% the needs of the Government and 60% the needs of the larger society. The project's Secretariat plans to devote a major portion of its resources during the remaining three years in the

development, testing and refining of a graded set of instructional aids designed to help village teachers implement six class years of that curriculum leading to formal certification equivalent to the regular formal primary school. From the perspective of the AID Project Paper, this creates a dilemma. Should AID policy be rephrased to conform more closely to the intent of the RTG or should AID negotiate with RTG to achieve a program more closely resembling nonformal educational theory?

#### RECOMMENDATIONS.

1. Village teachers and Secretariat staff should place higher priority on participatory and individual village-centered educational activity and lesser priority on centrally-planned standardized activity, especially the basic education classes.
2. The Project Secretariat should be reorganized into a smaller number of units with clear lines of authority and responsibility to the head of the Secretariat and to the Director of the Northern Regional Nonformal Education (NRNFE) Center.
3. The Secretariat should establish more effective communication, coordination and cooperation with other related units at all levels and should work with the NRNFE Center and Department of Public Welfare to develop a time-phased action plan for the integration of successful project elements into the larger NFE program in the hill areas.
4. Personnel management at the village level should be more effective.
5. Reporting, planning and project documentation should be standardized at the Secretariat level.
6. The sponsoring and coordinating units should expedite more timely cash flow at all levels.
7. The Project Secretariat should devote more of its staff and other resources to helping village teachers with teaching techniques, methods, skills, and materials for local nonformal education aspects of the program and for generating participation by village committees and less to the basic education program.
8. Extension of the implementation phase for another period should be considered by sponsors of the project with specific focus on field testing, refinement, expansion and villager participation and management.

This evaluation was organized by Creative Associates, Inc. and conducted by Dr. George H. Axinn, Team Leader, of Michigan State University; Dr. Scott F. McNabb, of the University of Iowa; and Dr. Thomas M. Olson of the International Institute for Rural Reconstruction in the Philippines.

## EVALUATION OF THE PROVINCIAL WATER PROJECT BASE LINE SURVEY RESULTS - PHILIPPINES

### PROBLEM & OVERVIEW.

For the many residents of urban areas in the Philippines, a common problem affecting their well-being and productiveness is access to safe drinking water supplies which are reliable and economic. In order to develop and make available potable water, the government must develop the institutional basis and ensure that staff have the technical capabilities to extend such service to the urban populations. Attaining these goals involves replacing old, unreliable water systems with new wells, treatment plants, storage reservoirs, pumping and distribution systems and administrative and support facilities.

### U.S. ASSISTANCE.

To meet this need, USAID and the Government of the Philippines (GOP) through the Local Water Utilities Administration (LWUA) signed a Loan Agreement (No. AID.DLC/P-2020) on May 24, 1974 to develop water systems in five selected cities. [Cagayan de Oro and Davao City on Mindinao; San Pablo on Luzon; Tacloban City on Leyete; and Bacolod City on Negros Occidental. Baguio on Luzon was also included in the original design but later dropped.] By the beginning of 1979, the new water systems in the five selected cities were functioning.

PURPOSE OF EVALUATION. One of the conditions precedent to the Loan Agreement was that an evaluation would be conducted to measure performance levels and impact on health and economic development. At AID's request, a 5-year evaluation study of three of the five cities was developed. In 1976, LWUA contracted the Institute for Philippine Culture (IPC) to conduct the evaluation in two of the cities, Bacolod and Cagayan de Oro. The U.S. Census Bureau was contracted to provide assistance to IPC. In 1978, LWUA terminated the IPC contract and assumed responsibility for managing the study through its own evaluation unit.

This is the first of three reports in the evaluation of the Philippine Provincial Water Project. This baseline study aims to evaluate the health and economic conditions in Cagayan de Oro and Bacolod before the completion of the water supply improvements. It will also establish the similarity or dissimilarity of the three experimental groups before the project intervention with respect to key pre-defined variables and measure the cross-sectional associations between the variables.

### FINDINGS.

1. Fifty-three percent of Cagayan de Oro households and 32% of Bacolod households were already connected to the existing city water systems prior to the project's start. This group is designated **Experimental Stratum I** for the purpose of this study. On a per capita basis, the average annual income was \$383 for residents of Cagayan and \$234 for those of Bacolod.

2. Households in the areas to be served by the new water systems scored lower than those currently connected in many of the socioeconomic indicators measured. These include average annual household income and percentage of households with electricity. Other indicators, such as education or quality of house construction, show no consistent differences. This group is designated as **Experimental Stratum II** for the purpose of this study.

3. The areas that will not be served by the new water systems scored lower in selected indicators than either Stratum I or II households. For this group, Experimental Stratum III, quality of house construction is markedly lower in Cagayan and household income is lower in Bacolod. Overall, there does not appear to be an overwhelming difference in the standard of living between those to be served and those not to be served.

4. Forty-one percent of all households in both cities obtain water from more than one source for household use. Even among Stratum I households, this practice is widespread.

5. About 10% of all households engage in water-related businesses. Most of the households with businesses (53% in Cagayan and 81% in Bacolod) felt that existing quality of water supplied was adequate.

6. Eighty-two percent of the water sampled taken from the houses in both cities failed to meet Philippine national standards for safe drinking. Even in Stratum I households, more than 66% of the samples failed to meet the standard.

7. Eighteen percent of children in Cagayan and 9% of children in Bacolod had diarrhea during the 24 hours prior to the interview. The incidence of diarrhea was affected by several variables, including age, nutritional status, household methods of excreta and garbage disposal, distance to toilet, frequency and occasion of hand washing, etc.

8. Most children in the cities were malnourished with only 40% considered normal; 30% to 40% suffered from first degree malnourishment. These rates vary between cities and Strata. The level of nutrition was affected by several variables including age, income of household, history of breastfeeding and methods of excreta and garbage disposal, etc. .

9. These associations appear to be a consequence of a single underlying circumstance: children living in households with automatic flush toilets were less likely to have diarrhea or be malnourished than children using other toilets.

PROJECT DESIGN & POLICY IMPLICATIONS. There can be no doubt that the both of these cities, and presumably the other three cities which are the targets of the project, need improved water service. In terms of equity, the project, as currently planned, will extend water service into areas that have a somewhat lower standard of living than those served by the pre-existing system. Left out of the current scheme are a significant number of households whose standards of living are, to varying degrees, below both those of Stratum I and II.

This evaluation was written by Steven C. Tourkin, International Statistical Programs Center, Bureau of the Census, under the direction of Michael J. Hartz, Chief, Evaluative Studies Branch. Robert Fay and Robert Magnani of the Bureau of the Census and Ms. Conti and Ms. Galicia of LWUA assisted. Additional support and direction was provided by William Stuart, Karen O'Connor and Rita Petroni of the Bureau of the Census and Hermilo Balucan of LWUA.

## EVALUATION OF THE SURAKARTA WATER PROJECT (BASELINE SURVEY RESULTS) - INDONESIA

PROBLEM & OVERVIEW. The public potable water supply system of Surakarta was constructed in the late 1920's and had reached its maximum capacity by the late 1950's. The first serious shortages were experienced in the early 1960's. Since 1965 new service connections have not been allowed. By 1970, the lack of potable water had reached crisis proportions. A major factor contributing to the water crisis has been the rapid rate of population growth experienced since the 1920's. The population has grown from 163,000 people in 1920 to an estimated 460,000 people in 1976 and was projected to reach 538,000 in 1982 and 1 million by 2001. In 1971, the British government assisted in the development of a feasibility study but did not finance the project to provide an improved water supply system.

U.S. ASSISTANCE. In June, 1975, the Government of Indonesia (GOI) and USAID signed a project agreement to finance the Surakarta Potable Water Project (SPWP). SPWP was designed to replace, improve and to extend the existing system. The beneficiaries were to be (1) 7,877 currently connected households; (2) an estimated 660 non-domestic consumers who collectively employ about 27,700; (3) 78,000 lower-income people who will be served by private faucets and (5) thousands more poor and destitute persons who are expected to use public latrines and bathhouses. Overall the project is to benefit 188,000 people, about 35% of the 1982 estimated population.

PURPOSE OF EVALUATION. The project was to be evaluated on a "before and after" basis intended to measure the effects of the project on the target population. This document reports the "before" conditions and was conducted just prior to the project's implementation. Data were obtained from a household survey administered to a probability sample of households in the eight administrative districts in which the project will be implemented in its first phase and three other districts which have not and will not receive the project water system. These three districts were selected because of similar socioeconomic, demographic and geographic characteristics to households in the project area. It also documents the characteristics of each group at the time the baseline survey was conducted.

### FINDINGS.

1. Currently connected households show various signs of a higher standard of living than nonconnected households in the same areas. These include higher monthly household expenditures, better quality housing, and higher educational attainment.
2. About 50% of the currently connected households obtain water from more than one source. Well water is used for washing dishes, doing laundry and bathing.
3. Over 80% of the drinking water samples taken from connected households were classified as unsafe in terms of coliform count. A higher proportion of the non-project area households had safe water than the system-connected households in terms of coliform count. Ninety-four percent of the surveyed households report that they boil drinking water.
4. Among currently nonconnected households, nearly 67% obtain drinking water from open wells and 85% bring water in from outside sources. Over 50% said that they would like to connect to the new system. Nearly 50% were willing to pay up to \$1.12 per month for water service. Nearly 67% indicated they would not be willing to pay a connection charge.

5. Eighty-four percent of the project households used manual flush toilets or latrines. Only 47% of the non-project households used manual flush toilets. Fifty-three percent of non-project households used rivers as compared to 13% of project households.
6. A much higher percentage of non-project area households reported that their waste water was disposed of in a dirt gutter, drainage ditch or simply thrown out in the yard.
7. About 10% of all project area households report they have a water-related business in the home.

POLICY IMPLICATIONS. There are some important questions about project effects that can only be answered after the project is completed and a follow-up survey is performed. The baseline survey indicates that households with higher income and higher standard of living are the ones which now have connections to the the system. However, a system connection does not guarantee safe water or reliable availability of water. It is significant that more non-project area households had safe water than did system-connected households. One implication of this finding might be that connection to a system provides a false sense of security to the public, particularly if the water supplied through that system is unsafe. Availability of safe water for household and commercial uses is a problem throughout Surakarta. The project can succeed in providing safe and reliable water service on a equitable basis to a larger proportion of the city's lower income population only if the public supply system is regularly monitored for coliform content and if connection and monthly service charges are kept low.

The evaluation team which collected data for this report included Mr. Richard Robinson, Mr. Indira Machmudin, Mr. Sihono and Mrs. Rani Hertiono. Ms. Bethann Walmus was Bureau of the Census project manager for this evaluation.



## EVALUATION SUMMARY OF THE ASSISTANCE TO ENVIRONMENTAL CENTERS PROJECT - INDONESIA

PROBLEM & OVERVIEW. When the Indonesian Ministry of State for Development Supervision and Environment was created in 1978, one of its first actions was to request assistance in developing systems to provide GOI planners with knowledge and services necessary to devise natural resource management strategies and to assess environmental impacts of projects. The Government of Indonesia (GOI) is eager to develop a solid national environmental assessment capability for the purpose of ensuring environmentally sound development. This priority was underscored by the passage of the national Environmental Law which requires all major developmental activities to be preceded by an environmental impact assessment. Concomitant with such a law is having the capability of performing the required environmental assessments.

U.S. ASSISTANCE. USAID responded to the GOI's request with a two-year Grant Agreement (Project No. 4979-0314) in August 31, 1979 which provides \$500,000 to the Environment Center at ITB. The Project Activities Completion Date (PACD), initially set for August 31, 1981, was amended to August 31, 1982 because of a delay of one year in recruiting the long-term consultant for the project. The project's purpose was to have been achieved when between 5 and 10 research and study projects and training programs were established and ongoing at the Center; eight persons had received advanced degrees; an information clearing house with library established; and Center administrative staffing was completed. Its goal is to rehabilitate, conserve, and improve Indonesian environment and to ensure environmentally sound development.

PURPOSE OF EVALUATION. The three purposes of this evaluation are (1) to measure progress against project outputs, purpose and goal; (2) to identify and solve problems which may be inhibiting Project implementation, and (3) to identify and discuss issues related to USAID's future support to environmental centers. In preparing this report, project documents and files were reviewed, USAID and Center staffs' views solicited and Project consultant personnel views obtained.

### FINDINGS.

1. The education of eight Center personnel will not be achieved by PACD. Currently there is one M.S. candidate in the U.S. who will complete his studies in January, 1983. Two more have been accepted to the Asian Institute of Technology commencing in September, 1982. One other candidate has been accepted for M.S. study at the University of Hawaii.
2. The development of an information clearing house and library is successful; however, only 4% of the planned book and journal purchases have actually reached the project site. A detailed evaluation of this was made in July 1981 by a short-term consultant appointed by USAID/Indonesia. His report is on file at the Mission.
3. The Center has a complete, full-time administrative staff. There are some minor management problems but these are being solved.
4. There are currently eight ongoing projects at the Center. These come under the headings of "Human Settlements," "Industrial Ecology," and "Transmigration." Under the latter category, there is currently no project. In 1981 there were two. Another activity not under these three headings is "Development of an Environmental Impact Assessment Capability." This consists of training courses in Environmental Impact Assessment techniques directed at government officials, consultants and other researchers.

5. Although the project has been in existence for three years, only 50% of its original budget has been expended. It is unlikely that the remaining funds will be used by the current PACD.

PROJECT DESIGN & POLICY IMPLICATIONS. The project appears soundly conceived and timely in its implementation. The recent passage of the National Environmental Law has focused more attention on the project and will increase pressure in terms of research and education demands for professionals to be trained in environmental impact assessment. There are two primary constraints to the project, however. The first is the amount of time allowed for implementation. Most projects have four to five year implementation plans. In this situation, USAID is developing from scratch an institutional capability complete with an infrastructure. At the same time, it is asking that the fledgling institution perform a job normally carried out by more developed institutions. In fact, this is the first USAID project with the Ministry of Environment which does not have any operational staff. The problems arising from this time constraint have been the difficulty in recruiting a long-term advisor (it took a full year) and the difficulty in recruiting and sending participants to the U.S. for long-term training. Because of this, the project has already been extended by one year. The other constraint was USAID's administrative juggling of the project and internal management problems dealing with project responsibilities. The result of all the shifting that took place internally was to paralyze certain aspects of the project.

RECOMMENDATIONS.

1. The project should be extended two years to cover participant training in the U.S. for the participant who is already there, for the two participants accepted to AIY, and for a fourth staff member to attend the University of Hawaii.
2. The project's working budget is to be revised and submitted to USAID/Indonesia.

This review was conducted by the USAID/Indonesia's Project Officer, the Regional Environmental Advisor, the Mission Evaluation Officer, W. Knowland, and the long-term advisor, Mr. James Tarrant, and Hasan Poerbo, Director, PSLH-ITB.

## EVALUATION SUMMARY OF THE NORTHERN SUMATRA REGIONAL PLANNING PROJECT - INDONESIA

**PROBLEM & OVERVIEW.** In an effort to respond to its development planning needs in a four province area of Northern Sumatra, the Government of Indonesia (GOI) decided to try an approach which differs from the pattern established by earlier planning projects undertaken for other development regions. The key element in this approach called for a "Long Range Regional Planning and Development Strategy and Framework," one encompassing a 20 to 25 year timeframe.

**U.S. ASSISTANCE.** The Northern Sumatra Regional Planning Project (NSRP) (Project No. 497-0246) is a joint GOI/USAID effort to respond to the development planning needs for "Major Development Area A" of Northern Sumatra by assisting in the establishment of a coordinated provincial and regional planning program. The project was authorized in FY 1977 at \$2,255,000 of which AID's share is \$1,560,000. The Final Obligation was expected by FY 1979 and the Final Input by FY 1981. The implementing agency was the GOI through its Ministry of Public Works and Ministry of Home Affairs. The Project Officer was assigned from the Dept. of Public Works. Technical Assistance was contracted with the U.S. based firm PADCO. The original objectives called for the following outputs: (1) the establishment of a system for intermediate range provincial development planning in four provinces; (2) a one-year system of provincial action programming; (3) a long-range regional planning and development strategy and framework; (4) a provincial and regional information system and (5) a comprehensive manpower development program in provincial and regional planning, providing on-the-job training and skill development.

**PURPOSE OF EVALUATION** This is the end-of-project evaluation. The period covered by this evaluation is from June, 1979 to May, 1981. Its purpose is to describe and assess what the NSRP has accomplished during this three year life as measured against the goal, purpose and output statements in the original project design. Most of the evaluation was conducted on-site at project headquarters in Medan. Project reports, publications, statistics and basic documents were reviewed and interviews held with Project Team members, staff representatives of the Ministry of Public Works, technicians from the BAPPENAS of the four participating provinces, and members of the PADCO advisory team.

### **FINDINGS.**

1. **In March 1980, a major redirection of project implementation occurred and project efforts were refocused on a single pilot province, Riau.** From the start the project developed problems in establishing the planning organization as originally conceived. The four provinces originally targeted were not, in fact, a single logical area for planning purposes in terms of the flow of economic goods or processes. Rather, each of the four provinces was a development region by itself with its own characteristics. Therefore, the planning effort was refocused on Riau province which would serve as a model for similar follow-on efforts in the remaining provinces of the region. The change in project implementation goals was also partly attributable to the lack of trained technical manpower adequate to meet the needs of the project as called for in the original project design and to the fact that the Project Support Teams could not be established as originally conceived.

2. The change in project implementation focus necessitated substantive adjustments and modifications to the original objectives and outputs. The modified outputs are as follows: (1) provide a near and medium-term Strategic Development Framework at the provincial level; (2) establish an Annual Planning mechanism at the provincial level; (3) develop an information system to support the annual planning process and the Strategic Development Framework in one province and provide assistance to one other province; (4) establish a manpower development mechanism through direct participation in pilot project work and participation in workshops at key stages as activities progress.

3. Under its modified objectives, the project has developed a solid planning base for the pilot province and accomplished valuable staff development work that extends beyond the staff of the pilot province. Under each of its major output headings, the project has produced useful results. A better factual base for planning, for developing improved planning, programming, and budgeting techniques and for introducing and strengthening more effective inter-sectoral coordination and communications has been established. There will be a group of BAPPEDA staff members from each of the four NSRP provinces that is better equipped to undertake development planning work.

4. A major concern has been identifying possible follow-on approaches which could assist the provinces in completing planning work already begun. Current follow-on efforts should insure that the work of the project will continue to advance and additional, long term results achieved. However, additional work and follow-on technical assistance essential to complete the Strategic Development Framework for Riau, to further the transfer of the process to the other three provinces and to make fully operational the improved annual planning and budgeting process for Riau, is beyond the scope of the present project.

PROJECT DESIGN & POLICY IMPLICATIONS. The project's original design was too ambitious. Development in general, and development planning projects in particular, are complex processes that often must proceed at their own pace. To expect to attain far reaching objectives in a relatively short period of time has, in this case, proven unrealistic. A review of what has and has not been accomplished during the life of NSRP leads to the conclusion that more time and more resources in the form of long term consultants were needed to accomplish the work expected. It is a credit to the USAID Mission staff and to the concerned GOI officials that each was able to cope with the unexpected, assess the probable short and long term effects of changes in direction structure and support and to make appropriate, mutually agreeable, adjustments to redirect the planned courses of implementation and to salvage the project. This collaboration turned a potential failure into a qualified success and helped to fulfill the recognized need for which the project had been conceived.

#### RECOMMENDATIONS.

1. The USAID/NSRP Project Officer should continue working with the Director General of the Ministry of Home Affairs to explore possible inclusion of Riau Province in the PDP III for appropriate follow-on assistance.

2. The USAID/NSRP Project Officer and the Director of Public Works (Tata Kota & Tata Daerah) should continue efforts to facilitate provision of follow-on assistance for Provinces of Aceh, North Sumatra and West Sumatra through inclusion of LTA-12 Continuation project in BAPPENAS Bluebook for use by other donors.

This evaluation was conducted by Drs. Atar Sibero, Director General of BANGDA, Ministry of Home Affairs; Ir. Ruslan Diwiryo, Director Tata Kota & Tata Daerah, Ministry of Public Works; and Karl A. Baldwin, USAID/NSRP Project Officer.

## TOWARD AN IMPROVED PROVINCIAL DEVELOPMENT PLANNING INFORMATION SYSTEM IN INDONESIA

**PROBLEM & OVERVIEW.** For the Government of Indonesia (GOI), the various agencies involved in monitoring and reporting on the progress and status of numerous Provincial Development Planning (PDP) Projects are tied together and regulated by a common reporting framework. This is the Instruksi Menteri or INMEN which prescribes the forms which must be completed at each stage of planning, budgeting, implementing monitoring and completing PDPs. The INMEN reporting requirements stress two aspects: financial disbursements and attainment of physical targets. The primary function fulfilled by these reports are auditing and financial control. The ultimate consumer of this information is the Department of Finance. Relatively little is required in the way of overall planning statements, provincial strategies or other indications of the context in which a project is to be assessed in terms of broader PDP goals. Consideration of the frequently mentioned goals of the PDP program, for example building institutional capacity at lower levels of government; devolving planning responsibility; experimenting with innovative approaches to reach the rural poor, are never specifically addressed in any of the INMEN reporting requirements.

**U.S. ASSISTANCE.** For USAID, the primary reporting requirement is the provision of a quarterly report by the provincial planning consultant. These reports are intended to provide information on all projects within the province and necessitate field visits by consultants and BAPPEDA staff to determine the status of projects. In addition to quarterly reports, USAID staff participate in inspection visits to project sites to determine whether the project will be accepted for reimbursement. In general, USAID reporting requirements are oriented towards financial disbursements and the attainment of physical targets. As with INMEN requirements, the primary functions appear to be auditing and control of finances with relatively little attention given to program planning or provincial strategies.

**PURPOSE OF EVALUATION.** More relevant and accurate information both regarding the implementation of individual PDP projects and impact of the whole program is a widely recognized need among agencies involved in PDP activities. The purpose of this review and analysis is to recommend ways and means of achieving a system of reporting, monitoring and evaluation which can deliver timely, accurate and relevant information essential to and effective in the process of improving the quality of the PDP program. This report concentrates on identifying key issues and offering recommendations on basic approaches. In compiling this report, field trips and interviews were conducted, data collected and analyzed, and project documents, reports and other relevant materials were reviewed.

### **FINDINGS.**

1. USAID attention is focused on individual projects rather than on sectors or areas of activity, and overall goals of the PDP program are inadequately considered. USAID reporting requirements for consultants also fail to distinguish between distinct needs at various levels and therefore result in a dissipation of scarce resources.
2. In general, the weakness of the present PDP INMEN information system is that it fails to make a distinction between different needs at various levels of government. The same kind of information is made available at all levels of government. Much information now generated is not used and much information needed is not provided. Therefore, the higher levels of government, which need to assess the provincial development strategies and determine the impact of the PDP program, are often suffused in useless information on financial disbursement and on attainment of physical targets for individual projects but have little information which will allow them to assess strategies and measure program impact.

3. The reimbursement system presently in force has been a major factor in determining the character of the present information system. Because of the project-specific reimbursement system, all levels of the GOI emphasize inspection of physical achievements of individual projects rather than assessment of overall program achievements, many of which are non-physical in nature. The reimbursement system deflects the attention of USAID staff from assisting both BANGDA and provincial BAPPEDAs with the development and assessment of experimental projects. It places them in the role of inspectors of financial records and physical achievements.

PROJECT DESIGN & POLICY IMPLICATIONS. At the strategic level, the INMEN's current narrow focus on project reporting provides little or no basis for developing or assessing broader provincial PDP strategies. Each province does have a strategy of sorts, usually conceived at the beginning of its PDP program, which specify areas of both geographical and sectoral focus. While providing a framework for each province's program, these plans neither express experimental criteria nor call for testing of their underlying hypotheses. As time passes, they function as little more than definitions of boundaries for project activities. For an avowedly experimental project, this is a critical weakness. This problem is reinforced by USAID monitoring and information demands which tend to skew the information system toward disaggregated detail rather than broader strategy. The overall influence of the INMEN plus past USAID reimbursement procedures cannot be overemphasized. They have largely defined what information is demanded even though different information may be needed or wanted. In both BANGDA and USAID there is a substantial difference apparent between what high level managers say they want to know and the kind of information their systems are providing. As a corollary, much of what is collected is neither analyzed nor used. And the judgmental character of the monitoring system is intrinsically threatening, diminishing the prospects that active learning will take place.

#### RECOMMENDATIONS.

1. USAID staff should be concerned with provincial strategies and long-term development plans, the general direction and content of annual plans, and with helping BANGDA to determine the extent to which PDP program goals are being met. Except for focused technical inputs, USAID staff should concern themselves with broad strategic issues and not project implementation details.
2. The INMEN should be substantially revised so as to give emphasis to guidelines for the preparation of multi-year strategic program plans; the annual provincial strategy statement in the context of the multi-year plan; annual reporting on achievement of provincial strategic goals; specification of evaluation criteria keyed to administrative plans and achievement of project purposes; periodic reports linking planning to reporting and evaluation; and aggregation of project data at the provincial BAPPEDA level to enable preparation of analytical reports on sectoral or broad issues to the center.
3. The limited manpower resources of BANGDA staff should be directed to assisting provinces develop long-term plans and to assess the achievements of past programs and experimental efforts.
4. The present approach to reimbursement should be replaced by a funding and reporting system which will help focus attention on overall PDP objectives.

This review and analysis was conducted and written by M. Morfit, Team Leader; Mastuhu; D. Mickelwait; R. Tarigan; and J. VanSant.

SPECIAL EVALUATION REPORT ON THE ECONOMIC AND SOCIAL IMPACT ANALYSIS/WOMEN IN DEVELOPMENT PROJECT -  
PHILIPPINES

**PROBLEM & OVERVIEW.** The government of the Philippines (GOP), having undertaken an increasingly complex program of economic and social development, recognized a need for economic and social indicators to improve the planning process and to monitor and evaluate progress toward the achievement of plan objectives. Since the role of women in national development has been gaining increasing importance, an assessment of their status and participation in development activities, as well as important socio-economic indicators of their progress as a group, were also needed.

**U.S. ASSISTANCE.** The Economic and Social Impact Analysis/Women in Development Project (ESIA/WID) (No. 492-0295) is a 55 month bilateral agreement between the GOP and USAID designed to provide effective, national scale planning feedback to measure progress and accomplishments. The Project Grant Agreement is primarily between USAID/Manila and the Philippine National Economic and Development Authority (NEDA). USAID's contribution is \$2.5 million for the FY period 1978-81. Host country counterpart funding is \$2.35 million. Secondary agreements between NEDA and relevant Philippine agencies were developed to coordinate the project's five component parts. The project's general objective is to help improve the capability of the Philippine Government in monitoring and measuring economic progress, social change, and the impact of development projects, including the effects on women in their dual role as agents and beneficiaries of development. The five components are: 1) define and develop macro-level indicators for measuring/monitoring progress of medium and long-term development plans; 2) perform surveys and studies that define and specify the nature and effects of women's participation in development (WID); 3) develop micro methodologies for measuring and analyzing project progress and impact; 4) explore and examine administrative and operational feasibility issues related to promoting the use of project measurement systems, and 5) test whether the methods of micro analysis formulated can be used by government staff at the national level for evaluation of completed projects and prioritizing of proposed projects. This last component was not part of the original design but was incorporated in early 1981.

**PURPOSE OF EVALUATION.** The purpose of this assessment is to summarize actual accomplishments and performance of the project and its five components; to determine whether the project is on schedule and consistent with original objectives; to list and analyze problems encountered; and to develop specific recommendations to institutionalize project outputs and activities. This is the second technical evaluation. The first evaluation was conducted by the Monitoring and Evaluation Committee (MEC) of ESIA/WID Project in April/May, 1979. The current evaluation team was composed of three individuals, all external to the project, who reviewed project documents and reports, held interviews with ESIA/WID participants and with project and non-project related individuals in the GOP, USAID, and other donors including those with international organizations.

**FINDINGS.**

1. The outputs and accomplishments of the "Macro" component have been substantial; the 1980 first edition of Economic and Social Indicators has been published. The identification of areas of concern and the choice of indicators are significant contributions. However, there are some crucial areas which the system of indicators omits. These are poverty, income distribution, employment, health and nutrition. There also seems to be no unifying framework as called for in the project documents.

2. The WID Pilot Study (which tested three experimental indicators on women's participation), did not generate explicit suggestions as to the type of data to be pursued in order to measure the status of women's participation. The initial report was not acceptable to the Project Management Office (PMO) nor was it recommended for formal publication. Although the seven special studies were completed, the delay in the finalization of the Pilot Survey Report caused corresponding delay in the National Sample Survey. Thus the project is several months behind schedule.

3. The Region VI component achieved its three major outputs. Accomplishments included training NEDA and other regional agencies and local government personnel in designing and implementing project progress and impact measurement systems, having agency personnel prepare their own monitoring and evaluation designs; and documenting these experiences in a case study. However, NEDA regional staff were subject to multiple demands which dissipated the energy available for work on this component. Trained participants were not effectively used. Private sector consultants with multiple roles and self-imposed expectations often went beyond their terms of reference, perhaps at the expense of developing a more self-reliant component management staff.

4. The Micro component, when measured against its assigned numerical outputs, has accomplished considerable work; however, there remain important incompleting activities and many problematical aspects of the outputs. The problems include delays in implementation in certain activities, uneven quality of analyses, fewer than anticipated research projects selected for analysis, and more fundamental concerns of basic versus applied research value. Overall, the micro component is 6 to 10 months behind schedule.

5. The serious delay in completion of key micro component outputs presents a problem in the implementation of the objectives of the resource utilization component. It is not the delay per se that is the problem; it is the emergent, formative nature of the product that the micro component is responsible for generating. The emergent methodology must be set in a direction more amenable to the kind of testing called for in this component before a large scale replication of methods is begun.

6. The absence of a prior systematic external evaluation of this project is a serious omission. The first evaluation was in actuality an internal project program review. Many of the problems noted in this report would at least have been confronted if an evaluation had been conducted at the project's mid-point.

PROJECT DESIGN AND POLICY IMPLICATIONS. Perhaps the key to gauging the overall effectiveness of the project's design is the observation that a project like this is not mechanical. It has an idea of where it wants to go, but there are of necessity many unpredictabilities in getting there. Unpredictability means that course corrections are a continuing and sometimes crucial need. The project appears well conceived to fulfill a critical need and it appears to be well managed, particularly when the numerous advisory groups incorporated into project management are considered. However, the hierarchy suggested by the project's management structure does not correspond to the hierarchy of formal and informal relationships those same individuals observe outside the project. The strategy of a Consultative Council, composed of regional directors who were to analyze administrative problems pertaining to the maintenance and operations of monitoring and evaluation systems, did not work. The contribution of this project should not be gauged in terms of output only, but also in terms of continuing process. For example, the WID component findings could serve as a basis for program development and policy direction for the National Commission on the role of Filipino women. Overall, the project will lead to the establishment of a more strategic view. It is likely to pioneer an impact assessment and goal monitoring capacity at those points and places where the probability of sustainable growth is highest.



## RECOMMENDATIONS.

1. **THE MACRO COMPONENT:** Indicators of poverty and income distribution levels, and degrees of underemployment and malnutrition should be developed and a framework for broadly linking the different economic and social indicators among goals and social concerns should be attempted.
2. **WOMEN IN DEVELOPMENT:** The analysis of all three regions as originally scheduled should be undertaken. The identification and selection of appropriate indicators for women's role in development should be related to changing trends in women's roles. This will permit wider implications to be drawn within the context of changing social and economic conditions.
3. **REGION VI:** A systematic follow-up plan aimed at strengthening technical and managerial skills for the maintenance and operation of the monitoring and evaluation systems should be formulated.
4. **MICRO COMPONENT:** A local statistical consultant with expertise and knowledge of the basic Micro impact areas should examine the pooled data file to determine under what conditions the questions of Data Analysis II can be pursued.
5. **MICRO & RESOURCE UTILIZATION COMPONENTS:** A thorough external review should be implemented to determine what each concluded study contributes to the understanding of that type of project in the Philippines; whether it can be viewed as an impact study (applied vs. basic research value); and whether it should be published. The screened reports then should be presented to an appropriate policy audience.
6. **RESOURCE UTILIZATION:** Attention should be focused on the medium and long-term questions of what levels of project impact assessment capacities are sought for project monitoring, evaluation and development nationally and what specific steps can be taken to accelerate the process of impact assessment and utilization.

This evaluation was conducted by Dr. Bruce Koppel, Team Leader; Ms. Bituin Gonzales, and Dr. Augustin Kintanar, Jr.

## EVALUATION OF THE A.I.D. SOUTH PACIFIC REGIONAL DEVELOPMENT PROGRAM CHANNELED THROUGH PRIVATE VOLUNTARY ORGANIZATIONS

PROBLEM AND OVERVIEW. The South Pacific Region covers approximately 6 million square miles of territory with over 10,000 islands. Only 2 percent of that area is land and 86 percent of the land belongs to one country - Papua New Guinea (about 178,000 square miles). The population of the region is approximately 6 million people who are governed by 21 governments. Over half of the population is located in Papua New Guinea and almost 25 percent of all the languages in the world are spoken there. The economy of the South Pacific has been described as "affluent subsistence" because of its fertile soil and south-seas climate. Major development problems exist, however, shared and recognized by the countries of the region. These include: consumption exceeding production; human resources development, rural-urban drift, underemployment and unemployed school leavers, need for institutional change from traditional to modern money economy, lack of infrastructure, population growth and land tenure problems, need to bring women into the development process, and dependence on foreign aid for general budget support and development.

U.S. AND OTHER ASSISTANCE. Since 1977, USAID has contributed \$13.36 million to the South Pacific Region through intermediaries, a program that is unique to the Agency: \$2.71 million to regional programs; \$.674 million to the Accelerated Impact Program (AIP); \$8.53 million through 10 Private Voluntary Organizations (PVOs) in nine countries (see Appendix C). Assistance is primarily for village centered, self-help, discrete activities and training purposes focusing primarily on the micro level of development. According to the FY 1983 Country Development Strategy Statement (COSS), the goal for the entire regional PVO program is to increase the agricultural and fishing cash income possibilities for rural islanders and to assist them in addressing basic needs, primarily through appropriate education. The program is administered through the South Pacific Regional Development Office (SPRDO) established in 1978 in Suva, Fiji. The other major donors in the region are Australia, France, New Zealand, and Great Britain which give up to 40 percent of some countries' total budget in block grants. The Multilateral Development Banks (World Bank and the Asian Development Bank), UN agencies, EEC, numerous PVOs, volunteer groups and missionaries from many countries are also present in the region (see Appendix E).

PURPOSE OF THE PRESENT EVALUATION. The \$8.53 million AID program channeled through PVO intermediaries and their use of funds to plan and implement development projects is the subject of this evaluation. PVO administration and management, their effectiveness and impact on development activities were examined. Although each PVO grantee has responsibility for evaluation, AID reserved the right to undertake its own. This was the first AID evaluation of either specific projects or of the entire program. The team visited 30 project sites of 6 PVOs in five countries, conducted interviews with PVO operatives and project staff, host country authorities, PC Staff and Volunteers, AID staff and, to a limited extent, some beneficiaries. The most difficult task of this evaluation was obtaining information about beneficiaries from project staff records or through on-site visits.

### FINDINGS.

1. Projects which set in motion a sequence of development processes rather than discrete intervention are the most effective. Not many PVO projects are income generating. One that is has contributed significantly to increased agricultural production, and its beneficiaries, estimated at 2000 people, are directly involved in exporting products. Another project has benefited only six fisherman at this stage. But the development model could lead to an industry producing ten million tons a year from the nearby lucrative fishing waters.

2. PVO proposal goal statements are general in nature and do not reflect the specific income generating emphasis of the CDSS. At a recent conference, PVO, Peace Corps and SPRDO staff concluded that human resource development is their most fundamental goal. This is perceived as an intermediate step necessary for imparting skills before specific development programs can be tackled. Although general in nature, PVO goals demonstrate a strong basic human needs emphasis and an understanding of the region. There is an element of training in all projects and training is the most frequent activity among PVOs.

3. There are two basic approaches to development strategy and project management among the PVOs. A basic programming issue arises between PVOs which try to alter communal tradition as being antagonistic to development and PVOs which have designed projects to enhance communal values of sharing and responsibility. The latter are more successful in our judgment.

4. The use of PVOs has not lessened the host governments' preference for government to government assistance. The activities of all PVOs are done within the framework of the host country's national development plan and have been approved by the host government. One government, that of Western Samoa, is the most skeptical and critical of foreign PVO programs, although it views indigenous PVOs with less suspicion.

5. AID requirements for non-AID contributions to PVO project budgets are not being met in many instances. A number of PVOs look at the AID contribution as the entire project budget. In some cases, the non-AID contribution was not listed. In others, non-AID contributions consist of government or church-leased land and the sale of produce raised on a farm which may not be available until future years.

6. Agricultural training centers seem to have an especially difficult time recruiting staff, holding students and mobilizing an operating budget to sustain the institution. This has been identified as a problem which extends beyond AID/PVO-supported agricultural institutions. All three agricultural training centers operated through PVOs are struggling to hold students.

7. The AID project review process seems to have been inconsistent in its application to PVO project proposals. PVOs seem to have received what they asked for with the result that there are inequities in resources allocated to all PVOs. The practice of including the proposal as a part of the grant agreement has a positive effect of placing necessary information in one document, but it commits AID to the weak section of the proposal as well as the strong.

8. Appropriate evaluation plans are lacking in OPG proposals. Four projects have been evaluated by their own organizations. Of these, only the Western Samoa project provided sufficient detail on both costs and income to allow for cost benefit analysis of some of their sub-projects. SPRDO has recognized that evaluation is an incomplete item for this program and has made it a major focus for 1982.

PROJECT DESIGN AND POLICY IMPLICATIONS. The two major strong points of the program are human resources and local participation. While small compared to other major donors, the program is intended to engage people at the grassroots level where few other international donors or national governments' programs are directed. It is a program that meets our own legislative injunctions to help those who need it the most. Assuming that the U.S. Government believes it important to give some indication of its concern for these newly-independent nations, it gives the program a good return on a small investment. The most effective part of the program are projects which set in motion a sequence of development. Among those PVOs who have taken care to use village decision-making processes, self-help projects selected have not only generated widespread commitment but have accomplished development goals as well. Sustainability of project activities depends upon engendering a sequence of development processes. Short-term, discrete outputs are visually comforting but do not lead, necessarily and by themselves, to achievement of program purpose.

## RECOMMENDATIONS.

1. The PVO program should be retained at the current funding level and with the PVOs that are now in place.
2. The next phase of the program needs to concentrate on moving from outputs to achievement of project purpose. Projects which seek transfer of technical or specific information and skills are more effective than those of a general nature such as nutrition education or literacy.
3. As institution-building projects come up for extensions or additional funding, they should be examined for ways of increasing beneficiaries, reducing administrative costs, and ensuring the inclusion of quantifiable PVO contributions. Sustainability and replicability factors should also be given appropriate consideration.
4. Project proposals should be strengthened by including baseline data, more specific project purpose statements, quantifiable objectives, budgets based on previous expenditure history and specific evaluation plans.
5. The South Pacific Commission or other appropriate body might be asked to join AID in an assessment of the impact of agricultural training as developed in the YMCA rural clubs and that of training institutions.

This evaluation was conducted by: Genta A. Hawkins, Team Leader, Dr. Grace E. Langley and Dr. Gerald C. Hickey

## EVALUATION OF THE ASIA FOUNDATION'S PARLIAMENT LIBRARY MODERNIZATION PROJECT - BANGLADESH

PROBLEM & OVERVIEW. The Bangladesh Parliament Library (BPL) was located in a crowded room consisting of locked cabinets full of mouldering books and dusty papers tied up in bundles. There was no modern system of cataloging and classification; no systematic way to retrieve information from the estimated 50,000 volumes. There was no working space, and no new acquisitions were being systematically procured.

U.S. ASSISTANCE. In 1979, USAID/Bangladesh signed a three-year project agreement (No. 388-0045-02) with The Asia Foundation (TAF). The purpose of the project was to facilitate the development of a modern, democratic system of government through training of key Parliament and library staffs, by creating a fully operational, modern legislative reference library and by acquiring additional books, materials and library equipment.

PURPOSE OF EVALUATION. The purpose of this evaluation is to assess the project's overall achievement against its stated goals and objectives.

### FINDINGS.

1. Two key individuals have completed training abroad and have returned to their posts. These are the Assistant Librarian and the Parliament Superintendent. The latter individual returned soon after the 1982 coup d'etat and has not had any opportunity to apply his training in legislative training as the legislature was disbanded under Martial Law. At present he is director of a government hostel.

2. The library staff (21 individuals) received continued training over a six month period. This training was conducted by the TAF short-term consultant. In addition, the staff are taking U.S. Department of Agriculture (USDA) correspondence courses in Library Science. The first group is scheduled to complete its training by November. The Library of Congress short-term consultancy in subject cataloging did not work out due to severe budget cuts at the Library of Congress.

3. Over 2,666 titles have been acquired for the Parliament Library. In the last quarter, 779 titles worth \$28,492 were ordered. Many titles include multi-volume sets.

4. A total of 18,500 of the 39,000 current volumes have been classified, cataloged and labeled. In the past nine months alone, 6,500 books have been processed.

5. The microfiche machine has been installed at the Library. Although damaged in transit, it has been repaired and is functioning.

6. The Library has not been permitted to relocate in the new Sher-e-Bangla Nagar Parliament Building. There have been many postponements and reschedulings. At present it is not clear when this move may actually occur although it is now scheduled for sometime in the early part of 1983.

PROJECT DESIGN & POLICY IMPLICATIONS. The third year was a difficult one mainly due to political events. After the reimposition of Martial Law (March, 1982) the major project supporters within the Parliament were transferred elsewhere. Their replacements are not interested in the project and seek to reduce the library staff to a maintenance level. The Cataloging Supervisor has not been allowed to finish her contract and has been denied access to the building. These events have served to deflate staff morale and to obstruct project momentum. It may be that the project has lost its utility in the face of the current political climate in Bangladesh. A very strong and identifiable resource has been given to the Government of Bangladesh, but its future is difficult to predict.

**RECOMMENDATIONS.**

1. The microfiche equipment should be monitored to ensure it is properly maintained.
2. Training for all Library staff should continue primarily through the USDA correspondence courses.
3. Coordination and other links between the Library and other national and international libraries, organizations, etc., should be developed and maintained so that the Library can continue to exchange information in the international forum.

This evaluation was conducted and written by S. Wallen, Assistant Representative, TAF/Bangladesh.

## COOPERATION AND COLLABORATION BETWEEN THE AGENCY FOR INTERNATIONAL DEVELOPMENT AND THE PEACE CORPS IN THE PHILIPPINES

PROBLEM & OVERVIEW. Too often, the problem with developmental efforts is not a lack of resources so much as a lack of commitment, energy and initiative, at the local, implementation level. This is the critical juncture. AID and the Peace Corps (PC) are two separate organizations with a similar purpose but with different resources and operational strategies. For AID, the basic operational unit is the project. For the Peace Corps, it is the Volunteer (PCV). Both are committed to helping the rural poor of the developing nations in a manner that will be sustainable without outside resources. Cooperation between them is natural. This cooperation is supported by policy statements from the AID administrator and the PC Director. AID priorities are articulated in the annual Country Development Strategy Statement (CDSS) and currently focus on increasing agricultural productivity, developing small/medium scale enterprise in rural areas, improving local government capacities to mobilize and manage resources and reducing fertility and infant mortality. PC priorities, articulated in the Forward Plan Policy Guidance document, place special emphasis on assignments that support and promote local economic development and self-sustaining production capacity, particularly in areas of food and energy, developing or improving income-generating market mechanisms, and building local institutions and initiative.

U.S. ASSISTANCE AND AID/PC COOPERATION. In the early days of PC, contact with AID was kept to a minimum to allow the PCV to be judged as an individual and not as a member of the American foreign policy establishment. In the 1970's, PC and AID in the Philippines began working in similar grass roots rural development activities, and in this context some cooperation happened informally. In 1978, the AID Administrator and the PC Director made a joint policy statement asking AID Missions and PC Country Staff to begin cooperating more closely. The policy has been reaffirmed by each new AID and PC administration. In August of 1982, the AID Administrator and the PC Director made a policy statement asking for expanded cooperation. In the Philippines, this cooperation has occurred in several different ways. AID has encouraged PCVs to work on project-related tasks, with GOP or PVO projects funded by AID and through the special AID project called the Accelerated Impact Program (AIP). AIP funds community initiated activities with the help of PCVs. In the last two years, \$150,000 has been allocated for this program. AID and PC have also participated in joint conferences.

PURPOSE OF THE STUDY. AID would like to continue and expand cooperation with PC. This study describes the current cooperative activities, looks at the constraints on further expansion, and offers advice on how the present level of cooperation can be continued and expanded. This information comes from 50 interviews with AID and PC staff, PCVs and Filipinos associated with AID and PC projects and a review of AID/PC documents. The study looks at the AIP as a separate activity since it is new and has not been evaluated. A few of the AIP sites were visited and PC reports and evaluations of AID projects reviewed.

### FINDINGS.

1. AID and PC cooperation is already very significant. Most commonly, PCVs may work on project-related tasks, but they are not posted to work directly with a project. Sometimes PCVs are posted with GOP agencies to work directly on AID project activities or with PVOs that are funded by AID. Some PCV-initiated activities have become AID projects. There are several cases where PCV and AID project sites have both been used in training of PCVs. AID and PC have participated in two joint conferences.

2. The most productive communications occur between PCVS and AID project staff working in the same development sector. The current level of AID/PC cooperation has grown out of informal contacts. PCVs get technical advice, advice on development strategy and knowledge of available resources from AID staff. This is beneficial to the PCVs because few are equipped with high degrees of technical expertise or experienced in developmental planning. AID staff get insights into the day-to-day realities and process of project implementation.

3. The AIP fund has supported \$70,000 worth of useful and innovative efforts initiated by PCVs. AID has not been learning from the AIP experiences. By August, 1982, 62 projects worth \$70,000 had already been completed. These projects, for the most part, have been very successful, although there are some administrative problems with the fund.

4. There are limits to AID/PC cooperation, although they share similar goals and have appropriate channels of communication. The administration channels for effective communications are AID Director to PC Director, AID Program Office to the two special PC Associate Directors, and AID Project Officers to PC Regional Associate Directors. However, staff time in both organizations is already fully utilized. PCVs cannot be expected to have a high degree of technical expertise, to monitor AID projects, to handle project funds or to be key to project success. The PC can respond quickly to a request but can not guarantee a specific number of volunteers. AID can guarantee resources at a specific level but has a long and complicated process for developing project activities.

5. The study developed ideas for further expansion of AID/PC cooperation. A collaborative AID/PC project, AID staff working for PC for six months or more, a joint AID/PC project to build a Philippine National Volunteer Service, a PCV consult at the PID stage, a long term commitment to one area and sector, and a sharing of training resources are considered viable avenues of further cooperation.

COOPERATION AND POLICY IMPLICATIONS. The fact that 20% or more of AID project staff are former PCVs has brought an understanding of the value of PC to AID. The current level of AID/PC cooperation has developed from informal contacts which should continue to be the primary relationship. AID should not compromise the PCV's position which is primarily a relationship with his host community and his agency. No AID project's success should be premised on the role of a PCV. Involvement of PCVs in AID projects is a demanding and sensitive effort. A volunteer is meant to be a human resource who works with the members of a community to bring about change and not a leader, a source of funds or an extension of an AID project. AID's project development cycle takes at least two years and is very complicated, although AID becomes sure of the resources it can deliver well before the project begins. The PC's ability to supply appropriate volunteers for a project must be taken into account. Volunteer involvement should be phased into a project and this process should recognize and be sensitive to the PC's concerns that projects like AIP will change the volunteer's basic role in his/her community. Neither should the volunteer feel pushed to accept a leadership role that would threaten the sustainability of a project. At the same time, it seems appropriate to provide volunteers with resources such as are available through the AIP. Most volunteers interviewed felt this is a very important tool for their work. Continued, informal cooperation is valuable to the PCV because an AID project supplies resources to the agency he/she is working with and broadens the range of possible options and activities for effective project implementation. AID benefits from the PCV's involvement by gaining a front line worker who is concerned with change and the ultimate client groups of the project.



## RECOMMENDATIONS.

1. Continue the present high level of AID/PC cooperation and strengthen it through developing formal and informal methods of communication between AID Project Officers and PCVs working in the same sector.
2. Informal cooperation should be the most frequent type and PVO projects with PCV involvement should be encouraged. AID should consider sponsoring a conference for PVOs and PCVs.
3. AIP should be gradually expanded, and PC should help to make AID aware of the details of the individual projects. When details of The Small Project Assistance Fund are available, AID and PC should be able to reassess their role of the PCV in the AIP.
4. Meetings between Directors of both institutions should take place twice a year, at the staff level each quarter, and at the Project Officer/Regional Associate Director level as projects require.
5. AID and PC should pick two or three projects to focus on with formal cooperation. The ideas presented in finding #5 should be considered as a basis for this selection.

This evaluation was conducted by: John P. Comings, Ed.D.

## AN EVALUATION OF THE RENEWABLE NONCONVENTIONAL ENERGY PROJECT - THAILAND

PROBLEM & OVERVIEW. Thailand is a nation of finite resources and increasing population which is moving from a predominantly agrarian, subsistence economy to one more diversified, integrated and oriented to the international market. As more industry is established and as the population becomes more urbanized, greater demands for energy, for scarce natural resources and for employment of the rural population occur. The Royal Thai Government (RTG) has articulated a policy of reducing imported energy resources, arresting environmental degradation due to deforestation, and creating increased income opportunities in rural areas. This policy has been conceptualized in programs that develop RTG institutional capacity to perform and sustain energy policy planning, that introduce and test renewable energy technologies in rural areas, and that develop and test techniques for disseminating such technologies.

U.S. ASSISTANCE. The Thailand Renewable Nonconventional Energy (TRNE) project was conceived and planned in 1978 and a five year grant agreement for \$5 million was signed in August 1979. The RTG made \$3.2 million available in counterpart funding. The project has 14 components covering areas of institutional development, renewable energy technology demonstration in rural areas, and development and testing of technology dissemination techniques. It is managed and coordinated by the National Energy Administration (NEA). Technical assistance is contracted to Meta Systems (META) of the U.S. The Department of Technical and Economic Operation (DTEC) of the RTG approves budgets, supervises off-shore procurement, and manages counterpart funds for out-of-Thailand travel and training.

PURPOSE OF EVALUATION. This evaluation was to review project design, plans, expectations and accomplishments to determine if project objectives were being and can be met; to recommend those additional actions necessary to accomplish project goals or suggest needed changes in goals; and to describe modifications in project and component makeup to assure accomplishment of the existing and/or new goals. This evaluation was scheduled to take place when project work would be 60% completed. Team members attended a three-day project workshop, interviewed and visited representatives of all major project participants, and reviewed official and non-official documentation, files, memos, reports, etc.

### FINDINGS.

1. Sixty-two percent of the project's life has expired; about \$1.2 million (or 24%) of the total of \$5 million in U.S. grant funds and about \$450,000 (or 14%) of the RTG counterpart funds have been spent. Funds have been used mostly for project coordination and survey activities; RTG funds have been spent mostly on micro-hydro, woodlot and regional energy center components. The Project Paper contains few outputs, results or indicators of progress by which to confirm judgments about the chances of success of components and the project as a whole in the time less than two years of project life that remain.

2. Delays and management problems have made the original project design and some of the expectations, especially the development and testing of dissemination techniques for all technology components, impossible to accomplish by the Project Activities Completion Date (PACD). Delays occurred in organizing the project and in selecting the coordinating contractor. AID's decision to bypass some of the established procedures for grant-funded host country projects resulted in ambiguity in the contracting mechanism and contract terms and their interpretation which is still a major point of contention.

3. The project has experienced major changes in composition since its inception and minor changes are still occurring. The major change which took place during the early phase was the elimination or major curtailment of the project-financed renewable and nonrenewable energy resource assessments. A second major change was in the type and amount of training to be financed. Much less training activity is now anticipated and there may be no long-term academic training. A third major change is that of substitution of one technology component for one judged inappropriate. The criteria used to decide appropriateness have not been made explicit.

4. The project lacks a workplan which integrates and combines components and guides component leaders in making decisions about emphasis, approaches to analysis of results and the extent and type of effort to be placed on village or rural testing and impact evaluation. The initial overall workplan effort by META and RTG personnel was unacceptable to NEA and AID. Instead, individual component work plans were developed which are general activity descriptions, not sufficiently detailed to guide work execution or indicate and measure coordinated project outputs.

5. The delays in preparing and receiving approval for a training plan, continuing disagreements about what type of training is needed, and the limit on RTG counterpart funds have combined to forestall the initiation of any project-related training. A training plan has been developed but the \$54,000 counterpart fund is considered insufficient to meet the total training needs of the project. This concerns the component leaders who have prevented its approval.

6. Findings about specific components indicate that almost all the technology components were too ambitious and could probably not be completed by the PACD (July, 1984). Those technologies which may not be completed include the biomass gasification, pyrolysis of rice husks, and resource assessment on solar and wind energy. The need for micro-hydro and biogas components is questionable given their already widespread dissemination. In most of the components there is little evidence of planning for dissemination of tested technologies although this is called for in the Project Paper.

7. There appears to be a divergence between AID, NEA and some component leaders in how the project is viewed. AID views the project as defining technologies worthy of investment and beginning to disseminate these. NEA sees the project as mostly a preinvestment study. Component leaders vary in their opinions.

PROJECT DESIGN & POLICY IMPLICATIONS. The Team feels that although appropriate for Thailand at the time the project was signed, it was overly ambitious, contained too many components and unrealistic performance expectations, and did not consider the normal AID and Thai problems with startup. The project did not contain any element to combine and evaluate the results of all components. The comprehensive assessment of the social, economic, environmental and technical implications of the components, and the tying together and evaluation of results of the total project were not an explicit project activity. Since part of the project emphasized use of technologies already demonstrated elsewhere, this seems to be a serious shortcoming and probably reflects AID's lack of familiarity with the renewable energy field. At that time there was no performance data on Renewable Energy Projects in AID. A now obvious problem in the overall project design is the lack of a contingency plan or agreement for handling partially completed components at the end of the project. The Team feels that the overall project design should be maintained, for the most part, as a more desirable alternative than termination. However, the NEA's attitude or policy of emphasizing preinvestment should be adopted and AID should reevaluate its participation and define a role that will be compatible with mission skills, interests and policies. NEA, as the host country's implementation entity, should be clearly and firmly established as the Manager of the coordinating contractor and the coordinator. This will further the goal of institution building and personnel training. If the recommended package is adopted, failures in parts will not mean failure of the overall project. Those failures which do occur will be beneficial and positive learning experiences rather than negative and preventable outcomes of little utility in meeting project goals.

## RECOMMENDATIONS.

1. AID's role in directing the project and in overall decision-making needs to be reassessed. This reassessment should consider mission policies, skills and interests and the findings and recommendations of this evaluation.
2. NEA, rather than AID, should be firmly established as the manager of the coordinating contractor and coordinator.
3. All major participants, AID, NEA, DTEC, META, should immediately reopen discussion of contractual issues and their roles be clearly defined and mutually agreed to through face to face discussions.
4. A long term project coordinator is needed for at least one more year and a senior technical project management expert needs to be identified and selected for at least a two-month assignment. All parties appear to agree to these considerations.
5. An overall, integrated work plan and expanded training plan is a vital need and its preparation should involve revision of component plans and preparation of budgets to reflect inputs from the overall planning process and detailed execution plans. Expanded U.S. technical assistance is recommended for this phase.
6. Additional funds for the expanded training program should be earmarked and clearly identified following the preparation of the master workplan.
7. A project evaluation at the end of 1983 should be planned. It should review work on component results analysis and assess overall project impact.

This evaluation was conducted by Dr. James D. Westfield, Team Manager, Development Sciences, Inc. and Dr. Ulrich Ernst.