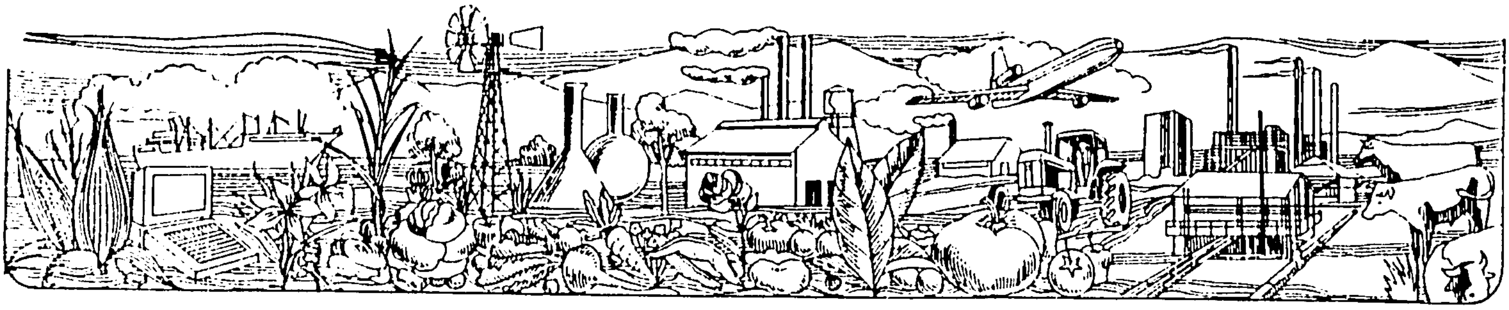

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FINAL EVALUATION OF THE IRRIGATION SUPPORT PROJECT FOR ASIA AND THE NEAR EAST (ISPAN)

Prepared for:

The Agency for International Development
Near East Bureau

by

AGRIDEC
AGRICULTURAL DEVELOPMENT CONSULTANTS, INC.

Evaluation Team

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FINAL DRAFT REPORT
November 1993

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PREFACE

The final evaluation of the Irrigation Support Project for Asia and the Near East [ISPAN] was conducted under the Scope of Work provided by the Near East Bureau of the Agency for International Development [AID] in Washington, D.C. -- see Annex A for the complete text of the Scope of Work. The final evaluation was undertaken by two consultants provided under an Indefinite Quantity Contract with Agricultural Development Consultants, Inc. [AGRIDEC] of Miami, Florida.

The consultants -- John Eriksen, team leader/agricultural economist, of Ithaca International Limited of Ithaca, New York and Gilbert Corey, irrigation engineer, of Moscow, Idaho -- worked on the evaluation from 1 September to 7 October 1993 -- see Annex B for the complete evaluation team itinerary.

For the first week, the evaluation team was in Washington, D.C. reviewing project reports, meeting and interviewing AID officials, ISPAN staff, and other concerned parties. The consultants also prepared an evaluation questionnaire which was subsequently sent to all USAID Missions in the Near East and Asia which had participated in ISPAN activities since the inception of the project, Egypt, Jordan and Bangladesh only excepted.

From 8 to 25 September 1993, the consultants travelled to USAID Missions in Egypt, Jordan and Bangladesh to observe ISPAN activities and to discuss project accomplishments and management with Mission staff, host government officials, and, in the case of Bangladesh, with resident ISPAN consultants. USAID Mission staff in these three Missions were also asked to complete the evaluation questionnaire and the responses were reviewed during the consultants' visit.

After returning to the United States, the evaluation team conducted additional interviews, reviewed USAID Mission responses to its evaluation questionnaire, prepared its preliminary draft report for review by AID officials in the Near East and Asia Bureaus, and participated in final oral briefings.

The consultants' final draft evaluation report, incorporating as appropriate the comments and corrections of the AID reviewers, was submitted to AGRIDEC for reproduction, binding and submission to the AID Near East Bureau.

In submitting its final evaluation report, the consultants would like to thank the many respondents who were kind enough to share with us their experiences with ISPAN activities and their opinions as to the future AID and Mission needs for expertise in water resource development after the anticipated project activity completion date [PACD] for the ISPAN on 30 June 1994 -- see Annex C for a complete list of persons interviewed. We also wish to express our appreciation to the project activity managers and other Mission staff who we were unable to interview directly but who responded to our evaluation questionnaire. By doing so, they provided us with valuable information on both ISPAN performance and their Mission's needs for continuing assistance with water resource activities.

EXECUTIVE SUMMARY

I. PURPOSE OF THE EVALUATION

This report is the final evaluation of the Irrigation Support Project for Asia and the Near East [ISPAN]. The evaluation report is divided into two sections. The first reviews the performance of ISPAN. The second evaluates AID's future needs for water resource expertise and alternative ways of satisfying those needs.

II. BACKGROUND

ISPAN, approved on 16 September 1986, was to be a mechanism to provide technical assistance to the Asia and Near East [ANE] Bureau and Missions on activities largely related to their irrigation portfolios. A Technical Support Center [TSC] was established in Washington. The staff of the TSC were readily accessible to ANE officials and the TSC itself was to be the center of an international network of irrigation professionals, actively synthesizing information on irrigation activities throughout the world and effectively communicating it to the Bureau and Missions.

Camp Dresser & McKee International, Inc. [CDM] was selected as the prime contractor for implementation of ISPAN. Under the prime contract signed on 14 August 1987, a consortium formed by CDM was to provide skills covering the major disciplinary specialties relevant to irrigation activities. This project consortium included seven organizations as sub-contractors to CDM. In addition, the prime contractor was authorized to procure the services of independent consultants and other organizations deemed necessary through other agreements negotiated over the term of the contract.

III. MAJOR FINDINGS AND CONCLUSIONS

A. ISPAN Performance

- ISPAN has produced a very large and diverse body of professional work. Activities have led directly to contributions in all the output categories listed in the Project Paper. Since November 1991, the project has worked on twenty-one different activities for the Bureaus, supported six regional activities, and assisted twelve USAID Missions in implementing seventy-five different assignments.

- The project has fully met all of the objectives set forth in the Project Paper. Moreover, with the broadening of its agenda, it has successfully discharged a number of other assignments not envisaged at project design.

- ISPAN has proven itself to be a flexible and responsive technical support mechanism for the Bureaus and USAID Missions.

- ISPAN publications and the direct interactions of its consultants with AID officials and representatives of other donor agencies have had significant impacts on the evolution of development programs and projects in the Near East and Asia regions.

- ISPAN's performance in servicing the needs of Missions has been truly outstanding. Senior management staff in all of the USAID Missions visited were unanimous in saying that they were very satisfied with their ISPAN buy-in arrangements.

- While questionaire scores across ANE Missions indicated a high general level of satisfaction with ISPAN performance, five Missions did express their dissatisfaction with ISPAN in certain areas. USAID/Egypt indicated dissatisfaction with the state of preparation of ISPAN teams upon arrival in country and ISPAN's timeliness in submitting the reports and other products. USAID/Indonesia also expressed its dissatisfaction with ISPAN's timeliness in submitting reports. USAID/Pakistan indicated it was dissatisfied with the quality of end-of-assignment debriefings and the quality of reports and other products received. USAID/Nepal did not agree that ISPAN assistance had led to improvements in the design or management of water resources programs in the Mission's portfolio and strongly disagreed with statements that ISPAN assistance had helped to improve the operation and maintenance of specific irrigation and/or other water delivery systems and that host country capacity to deal with water resource issues had improved. Finally, USAID/Philippines indicated that it disagreed with the premise that ISPAN would continue to be relevant to the Mission's program until the project's PACD.

- Shortages in core funding for the project and the lack of continuity in CDM senior management contributed to the applied studies/lessons learned component being less productive than anticipated. ISPAN lacked sufficient funding to design and execute applied studies and lessons learned papers until April 1992. Since that time, one lessons learned paper has been completed and was distributed in October 1993.

- At Bureau level, officials interviewed were unanimously enthusiastic in their comments as to the value of TSC staff to their own activities. ISPAN in general and the TSC in particular got high marks from all respondents as being able to respond very quickly to Bureau needs to assistance. Particularly cited was TSC staff work on the Bureaus' newly developed water resources sector strategy papers and the support papers produced as Department of State/AID inputs for the Middle East peace talks process.

- There is no doubt in the minds of the evaluators that AID has "gotten its money's worth" from ISPAN. This, however, is not the same as saying that the technical assistance provided under ISPAN was cheap.

- The evaluators do not support as a general premise the idea that "very large and relatively long-term buy-ins" are appropriate for centrally-funded projects. All things being equal, we would much prefer to see any future ISPAN-like project operate in a manner similar to that currently being used in the Central Jordan Valley water

resources study. This type of assistance and collaboration appears to us to be an ideal way for Missions tc access high quality experts not otherwise available for resident overseas assignments, provide for continuity in activity implementation, and ensure professional oversight for the entire design/implementation/ evaluation process.

- ISPAN participation in the Flood Action Plan activity in Bangladesh has been a very creative exception to the generally accepted rules about how Missions should use buy-ins. In this case, the evaluators are convinced that, if USAID/Bangladesh has been forced to go through AID's normal project design and/or contracting processes to get the types of specialized technical expertise it needed to support the American commitments to the Plan activities, the expert support would have arrived in Bangladesh too late to be effective players in the donor/host country interactive FAP process.

  In that event, AID would almost certainly have lost an exceptional opportunity to assist Bangladesh finding more rational ways to deal with its water resource problems. By using the ISPAN buy-in mechanism creatively and exceptionally, USAID/Bangladesh and the Asia Bureau have succeeded admirably in inserting highly professional expertise, new ideas and innovative technology into the FAP process in a timely manner.

- The formal end of the regional institutions component of ISPAN dates from 10 April 1992. On this date, the prime contract was amended to formally recognize the conditions which had existed through most of the brief life of this component and to remove any contractual obligations for involvement with regional institutions from the AID/CDM prime contract.

  It should be noted, however, that ISPAN has worked with local groups in almost every country in Asia and the Near East. In most cases, these groups are stronger than they were before. In India, for example, ISPAN is helping to strengthen the capability and reputation of one of the few private sector firms in the irrigation sector. Perhaps this should have been the way the original project was designed since ISPAN has made a very important contribution to building capacity in local institutions which was wholly in the spirit of what was intended in the regional institutions component.

- The principal consequence of funding limitations during the project has been that it constrained ISPAN ability to capture AID's own relevant experiences in the water resources sector and enrich them with contributions not directly linked to Mission buy-ins. They have also limited the project's capacity to synthesize valuable experiences within the Near East and Asia regions and disseminate this information to a broad audience on a regular basis.

- In the opinion of the evaluators, the ISPAN financial system in place at the time of the evaluation is fully appropriate to the needs of the project and the financial reporting requirements of AID.

B. **Requirements for a Follow-on Water Resources Support Activity**

- There is need for an ISPAN-type project and the need will continue as long as AID projects are involved with planning, procurement, management, disposal and/or quality of water for any of its intended uses.

- As discussion and negotiation are replacing confrontation in the modern world. Negotiators need rapid access to the best possible information in the form of reports, papers, facts and advice that has been carefully collected from the most knowledgeable specialists available. We believe that, for issues related to water resources, the most dependable mechanism for obtaining such information is an ISPAN-type project.

- The survey of twelve Near East and Asian Missions indicates that:

  - o Missions will require access to expertise for the design, implementation and evaluation of water resource activities broadly defined;

  - o Missions will need a mechanism like ISPAN to service their needs and those of the host governments engaged with water resource issues;

  - o The mechanism should be limited to provision of only those resources that cannot or will not be secured by the Missions themselves; and

  - o Missions have no clear choice of whether the mechanism be regional or global in scope.

- Regional water and environmental issues have become more important in AID's project portfolio. The Near East peace discussions and the Flood Action Plan for the Brahmaputra and Ganges River basins in Bangladesh are already areas of involvement through ISPAN. Other river basins -- e.g., the Nile and the Mekong -- will probably require attention in the future.

- An ISPAN-type project is ideal vehicle for using local technicians to assist Missions with studies, reports, guidance and/or service requiring advisors for longer than a few weeks. However, these activities are likely to be more successful if frequent expatriate assistance is provided to ensure that the programs are followed diligently and according to technical design.

- Good design requires a thorough knowledge of the environment into which the project will operate. Reasonable attempts should be made to learn as much as possible before the design stage. This can be done with experts in the appropriate fields who make rapid field investigations with local experts. The same group of experts should logically design and install a monitoring system to follow the project to

completion. It is important that AID maintain a highly qualified core group of experts for these assignments, rather than contracting anew for each project or activity.

- Some water resource training exercises can best be provided by specialists not closely involved with implementation of a particular activity. There are also needs for training materials that are practical, simply articulated and based on lessons learned where there has been successful implementation of transferable technologies.

- The advantage of a regional water resources project would be that it is easier to keep work focused on practical and real problems important to the region. Centrally-funded projects in the past have tended to be more academically-oriented, producing well articulated and scientific results but, too often, the work was not focused on real and current problems existing at the mission level.

  On the other hand, if a central bureau is to be given responsibilities for servicing the technical needs of the regions and missions, it would be advantageous to create a central project. A central project could bring experiences from all regions into the picture. Properly managed, there need not be concern over losing regional control. In fact, the buy-in feature would permit regions to shape activities to their particular needs.

  If global in nature, a future project would be involved with water related issues in all AID countries. Its world-wide mandate would provide a knowledge and experience base that should be more valuable to AID than if the project was designed to operate in only one region. Water resource management problems are sufficiently complex to warrant bringing the broadest possible range of experiences to bear on them. Finally, one centrally-funded project might provide cost savings through lower administrative costs per unit of output.

- Any new water resources project should be designed to respond to issues in the following areas:

  - o Water quality -- industrial and agricultural pollution, ground water quality, quality standards, and monitoring techniques.

  - o Water conservation -- loss reduction, irrigation efficiency, reuse of irrigation and industrial waste water, cropping patterns and monitoring techniques.

  - o Water supply -- mining of ground water, across and within country diversions, pumping techniques, water inventory, water spreading, and evapo-transpiration suppression.

  - o Excess water management -- flood control and management, surface and sub-surface drainage and erosion control.

- o Water rights -- current status, conflict resolution, water user associations, and new initiatives.

- o Water pricing -- current status, legal requirements, true value of water, and elimination of subsidies.

- o Health -- mapping the extent and importance of and preventing water-borne diseases.

III. Lessons to be Learned from the ISPAN Experience

- ◆ ISPAN has proven itself to be a highly flexible and responsive project mechanism of great value to the Bureaus and Missions.

- ◆ Broadening of ISPAN's agenda to include all aspects of water resources development and conservation was a wise strategic decision which increased the utility of the project to its clients.

- ◆ If an ISPAN-like mechanism is to perform optimally, AID management and contracts personnel must be able and willing to facilitate new approaches to novel technical assistance situations.

- ◆ Excellence requires time because experience is so important. Tradition indicates that field experience in water resources management is more important and helpful to implementation of projects than is purely technical and/or general knowledge.

- ◆ It appears that the American universities that participated in the ISPAN project may have had structures and resources better suited to implementing core-funded applied research and synthesis activities, than short-term consultancies. While certain professors contributed significantly on short-term consultancies, the universities overall proved themselves somewhat less suited to providing short-term support for Mission buy-ins than consulting firms. This is so because most university scientists teach at least part time and their availability is dependent upon class schedules. Universities generally budget faculty to be full-time, with strict regulations on off campus consulting. When faculty members accept such assignments, another faculty member is often overloaded and administrators tend to frown on this use of faculty time. Unless a particular university has a liberal consulting policy, it is often difficult for well-qualified -- and, particularly, more junior -- faculty to get released for short-term assignments of more than one or two weeks, except when classes are not in session.

IV. Recommendations

A. Project-Specific Recommendation

- During the remaining months of the projects, maximum concentration should be placed on completing the applied research/lessons learned reports already scheduled and synthesizing project experiences across the regions in the project completion report.

B. Recommendations for the Future

- Environmental aspects of water resources development can no longer be neglected. Water resource project can provide convenient and effective access to influence attitudes and environmental programs of aid recipient nations.

- Environmental, socio-economic and political aspects should be given more importance in water resource development.

- Population increases reduce per capita availability of fresh water. Since agriculture generally is the major user of water, improving on-farm use of water is increasingly important, not only to increased food production, but also because of its potential for releasing water for domestic, industrial and other uses.

- AID should have flexible, competent, experienced and broadly-focused technical assistance capacity available in the future in order to deal with water issues. It is unlikely that the restructured and "right-sized" agency will be able to adequately handle these important programs with available direct-hire technical staff.

- Because of the crucial importance of water as a development resource, any ISPAN-type follow-on program should be focused specifically on water -- i.e., not designed as an element of a broader environmental program.

- The unit should have the capacity to respond to Missions and Regional Bureaus with both short-term training and technical assistance and, as necessary, long-term technical assistance personnel on site for special programs or studies.

- The water resources mechanism should be global in nature, but care must be taken to guarantee that the focus is on Mission needs. Regional activities can be handled within a global project without loss of emphasis or detail.

- The model should continue efforts to secure the best technical experts, both within and outside the United States. Any new program should be designed with clear provisions for the placement of expatriate and local teams overseas. AID's normal contracting procedures may need modification to facilitate this type of program.

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LIST OF ACRONYMS USED IN THE REPORT

AGRIDEC	Agricultural Development Consultants, Inc. of Miami, Florida
AID	Agency for International Development in Washington, D.C.
ANE	Asia and Near East Bureau of AID
CARE	An international non-governmental organization
CDM	Camp Dresser and McKee, Inc., the prime contractor for ISPAN
DAI	Development Alternatives, Inc., a sub-contractor for ISPAN
DEVRES	Development Resources, Inc.
EIA	Environment Impact Assessment
FAP	Flood Action Plan in Bangladesh
GIS	Geographic Information System
IAV	Hassan II Institute of Agronomy and Veterinary Sciences in Morocco
IMPSA	Irrigation Management Policy Support Activity
ISPAN	Irrigation Support Project for Asia and the Near East
ISTI	International Science and Technology Institute, Inc., a sub-contractor for ISPAN
NESSI	North East Small Scale Irrigation Project in Thailand
PACD	Project Activity Completion Date
PID	Project Identification Document
SAGES	Senior Advisory Group of Experts working with the ISPAN Technical Support Center
TRG	Training Resource Group, Inc., a sub-contractor for ISPAN
TSC	Technical Support Center for ISPAN located in Rosslyn, Virginia
USAID	Overseas Mission of AID, as in USAID/Egypt
WASH	Water and Sanitation for Health Project
WMSII	Water Management Synthesis II Project

MAIN REPORT

FINAL EVALUATION OF THE IRRIGATION SUPPORT PROJECT FOR ASIA AND THE NEAR EAST [ISPAN]

I. PURPOSE OF THE EVALUATION

This report is the final evaluation of the Irrigation Support Project for Asia and the Near East [ISPAN]. The objectives of the evaluation, as set forth in the Statement of Work [Annex A], were to:

- Determine the extent to which the project has met its objectives;
- Assess the continuing validity and relevance of ISPAN to AID as a whole and to the Near East Bureau specifically under current AID policies and strategies;
- Assess the effects of external and unanticipated actions and events on the overall project;
- Assess the extent to which the contractor has been able to fulfill the scope of work under the contract; and
- Examine various alternatives which would meet the Agency needs, and specifically those of the Near East Bureau, in water resources over the next five to seven year period.

Given these objectives, the report is divided into two principal sections. The first reviews and examines the performance of ISPAN from project approval in September 1986 through September 1993, with special emphasis on the period since the mid-term project evaluation in September/October 1991. The second is devoted to identifying the future needs of AID and the Near East Bureau for water resource expertise and alternative mechanisms for satisfying those needs.

II. BACKGROUND OF THE PROJECT

A. Background

ISPAN, when approved on 16 September 1986, was seen as a successor project to the Water Management Synthesis II [WMS II] Project. Whereas the WMS II was centrally-funded, managed by AID's Science and Technology Bureau and worldwide in scope, ISPAN, was designed in a narrower context. It was to be a mechanism to provide technical assistance to the Asia and Near East [ANE] Bureau and Missions on activities largely related to their irrigation portfolios.

Under ISPAN, a Technical Support Center [TSC] was to be established as a project central office in the Washington area. The staff of the TSC were to be readily accessible to ANE officials and the TSC itself was to be the center of an international network of irrigation professionals, actively synthesizing information on irrigation activities throughout the world and effectively communicating it to the Bureau and Missions.

In mid-1987, Camp Dresser & McKee International, Inc. [CDM] of Boston, Massachusetts was selected as the prime contractor for implementation of ISPAN. Under the prime contract signed on 14 August 1987, a consortium formed by CDM was to provide skills covering the major disciplinary specialties relevant to irrigation activities.

This project consortium included seven organizations as sub-contractors to CDM. They were: CARE; Development Alternatives, Inc. [DAI]; Harza Engineering Company; the International Science and Technology Institute, Inc. [ISTI]; the Training Resources Group [TRG]; Cornell University; and the University of Arizona. In addition to personnel and consultants provided through the sub-contractors, the prime contractor was authorized to procure the services of independent consultants and other organizations deemed necessary hrough other agreements negotiated over the term of the contract.

As stipulated by the prime contract, CDM established the ISPAN TSC in Rosslyn, Virginia. Over the life of the project, the ISPAN TSC has maintained offices adjoining those of the Water and Sanitation for Health Project [WASH]. This project, for which CDM is also the prime contractor, is another major centrally-funded AID project concerned largely with improving sanitation and providing rural water supplies.

When the ISPAN prime contract was signed in 1987, it authorized CDM -- and its sub-contractors -- to implement ISPAN activities over a five year period. The contract contained an option to continue ISPAN operations for an additional two and one-half years subject to certain performance conditions. After receiving the mid-term project evaluation report from a DEVRES team [1991], AID waived competition for the nineteen and one-half month extension permitting the increase in the level of effort and extension of the contract.

B. ISPAN's Goal and Purpose

The goal of ISPAN, as stated in the Project Paper, was **to increase agricultural production, real farm incomes and distributional equity in those countries within the AID Asia and Near East [ANE] Region. This goal was to have been achieved by helping USAID Missions within the region to improve the efficiency, reliability, and equity of irrigation water delivery and use in the region's irrigation systems.**

The project purpose was **to assist USAID Missions to improve the quality and performance of their irrigation portfolios. The project purpose was seen as encompassing not only the then current generation of projects but any future projects. In addition, ISPAN was seen as a mechanism for improving the capabilities of regional support institutions -- e.g., research and training and consulting organizations -- to provide on-going assistance to USAID Missions and host government irrigation projects and organizations. Finally, the project as designed recognized the need to develop solutions for the complicated irrigation management problems facing the ANE region, to share experiences within the region, and to develop the skills of relevant professionals.**

C. ISPAN's Anticipated Outputs

ISPAN outputs as specified in the Project Paper were to include the following:

- The design and redesign of projects in response to USAID Mission and host country requests;
- Analyses of critical problems and recommendations for their solution again in response to USAID Mission and host country requests for assistance;
- Evaluations of AID-financed irrigation improvement projects to be conducted in a consistent way to allow cross-project comparative analysis and to promote inter-Mission sharing of information and synergy;
- Assessments of national and provincial irrigation sectors so as to examine irrigation from a policy perspective and through a variety of disciplines;
- Analyses of regional and sub-regional trends and longer-range strategic issues and development of responses to these issues;
- Information sharing among USAID personnel and their counterparts through workshops, conferences, joint teams, and information networks;
- Knowledge sharing with other regional projects and international centers;
- Training for irrigation professionals with outputs including trained individuals, curricula, materials, methodologies, and on-going courses; and
- Active well-utilized regional support institutions in support of the region's irrigation sector.

III. ISPAN PERFORMANCE

ISPAN as designed was to have four major components. They were:

- **Technical Assistance**

Under this component, technical support services in the form of multidisciplinary teams of specialists were to have been provided in response to requests from ANE Missions and host governments. Such support was to provide assistance at any point in the AID project cycle, including sector reviews, identification of projects, development of project papers, assistance of implementation of project activities, and evaluation of projects.

◆ **ing and Technology Transfer**

This com nent was to have included such activities as formal short courses, seminars, workshop study tours, field exercises, newsletters, and networking on matters related to irrigation development.

◆ **Applied Studies**

Applied studies were to be carried out under this component either as a direct service to Missions and host governments or to address broader regional and future-oriented goals.

◆ **Regional Institutions**

Under this component, three or four regional institutions were to have been selected to work with the prime contractor and provide services under the project. Through working with key regional institutions, the project was to institutionalize training capacity within the ANE region.

A. Findings

1. Factors Shaping ISPAN Performance

In summarizing ISPAN performance, project implementation has been broken down into two periods -- i.e., the period from project inception to the mid-term evaluation in October/November 1991 and the period from November 1991 to the present. This breakdown is useful for two reasons. First, ISPAN activities and performance during the first period have already been recounted and analyzed in the mid-term project evaluation [DEVRES, 1991] and need only to be briefly summarized in this report. Second -- and more importantly -- several events during 1991 have had significant impacts on ISPAN as a technical support mechanism and have shaped the project's direction and performance since then.

The following factors have influenced ISPAN's performance in the period since the mid-term evaluation:

◆ **Continued Sharp Fluctuations of the Availability of Core Funding**

Activity implementation over the life of the project has been affected by sharp fluctuations in the availability of core funding. In the first phase, loss of expected funding led to the discontinuation of several important activities. One was the participation of the senior advisory group of experts [SAGES] in water resource activities. The second was the production of several synthesis and applied research reports not directly tied to Mission buy-ins. The third was the entire project component on regional institutions which was effectively dropped from the project after 1990 -- and formally removed from the prime contract in 1992. Finally, lack of core funding -- other than that needed to sustain the ISPAN TSC --

meant that home office support for sub-contractors was essentially eliminated, annual planning meetings ended after three sessions, and contributed to the decline in project participation by the two American university sub-contractors.

The severe cuts in core funding in 1991 meant ISPAN was increasingly dependent on Mission buy-ins for its operational survival. This targeted project operations to an even greater extent on those activities which were of direct interest to Mission portfolios. In the process, concentration shifted away from production of applied studies and other reports on regional and cross-cutting issues which, though potentially of great interest to AID and the Missions, could not be funded from the limited budgets of the individual Missions.

The increased ISPAN dependency on Mission buy-ins had major consequences for the project. First, project planning became more difficult because the activity agenda was increasingly determined by the needs of individual Missions. Second, the staff and other resources of the ISPAN TSC were increasingly devoted to servicing the operational needs of the buy-ins, leaving little opportunity for the project's core staff to concentrate on broader regional and more strategic water resource issues.

Only in the last two years has the core funding situation improved to the point where more of ISPAN's resources could be refocused on complementary regional and cross-cutting issues -- e.g., assisting Bureaus in the development of regional strategies, producing the first applied research report, and improving the technical base to support the evolution of the Middle East peace process.

◆ **Broadening of the ISPAN Mandate**

The period has also seen the broadening of the ISPAN mandate. In design and early project implementation, ISPAN was focused on assisting the ANE Bureau and individual Missions to improve the performance on their irrigation portfolios. Over time, with the evolution in AID's strategic approach to development world-wide, the Missions' increasing interest in other types of water resources issues, ISPAN initiatives, and, finally, the recommendations of the mid-term evaluation, the project mandate has been broadened to include water resource activities not directly related to irrigation per se. This new emphasis has resulted in ISPAN work on issues of water quality, allocation of water rights, flood control techniques, treatment and recycling of water resources, and other topics.

◆ **Bureau Reorganizations Within AID**

During the life of ISPAN, AID has split and reorganized what was the ANE Bureau four times. First, there was the division of ANE into the Asia and Near East Bureaus. Then, the new Near East Bureau was combined with eastern European countries to form the Near East and European Bureau. Further moves re-split the Near East Bureau from involvement in Europe and added central Asian countries in the Asia Bureau. Finally, at the time of this final evaluation, the two Bureaus are in the process of being recombined as a new ANE Bureau.

VP

The splits, recombinations and, finally, reunification of the ANE Bureau over the last four years have obviously complicated the implementation of ISPAN. TSC staff have had to deal with shifting and multiple constituencies with differing needs and attitudes. Over time, AID senior management displayed wide mood swings toward ISPAN, ranging from overt hostility to its existence to warm recognition of the project's utility to the Bureaus and Missions. These reorganizations have complicated activity agenda setting for ISPAN, led to a pattern of delay and reshaping in implementation of discrete activities, and, of course, the availability of core funding from the two Bureaus.

Finally, as of the writing of this evaluation report, the relationships between Bureau managers and ISPAN staff appear to have reached a high point of cordiality and cooperation not seen since the earliest stages of project implementation -- to the great credit of all concerned parties. But, unfortunately, AID is embarking on yet another agency-wide reorganization which will undoubtedly introduce more short-term uncertainties and personnel changes into the final stage of project implementation, regardless of any long-term benefits it might have for the agency.

- **Decline in Short-Term Consulting Assignments in the ISPAN Portfolio**

Over the period since the mid-term evaluation, there has been a distinct shift in the type of assignments being executed by ISPAN personnel. Driven mainly by the changing needs of the Missions, there has been less emphasis in the past three years on the short-term, in and out consulting work which was assumed at project design to be the principal vehicle for ISPAN assistance. This has led to more concentration on longer term support for and involvement in Mission activities -- exemplified by current or completed ISPAN support of activities in India, Sri Lanka, Jordan and, of course, Bangladesh.

- **Expansion of Flood Action Plan [FAP] Activities in Bangladesh**

ISPAN's long-term involvement in Flood Action Plan [FAP] activities in Bangladesh was not foreseen in the original design of the project. It has required maintenance of a resident team of ISPAN specialists in that country since 1990 and this involvement, in financial terms at least, has constituted a major portion of the ISPAN agenda since that time.

While this activity has generated some spectacular contributions to the forwarding of FAP work over time, it has also caused an array of management complications between ISPAN, the Asia Bureau and the USAID Mission and raised contractual questions about the nature of and limitations that should placed on Mission buy-in mechanism.

- **Increasing Influence of the Middle East Peace Process on the ISPAN Portfolio**

Finally, the activity agenda and performance of ISPAN in its latter stages has been shaped by the evolution of the Middle East peace process. As the American foreign policy establishment has sought to respond creatively to changing conditions and new opportunities in the region, ISPAN has been asked to involve itself in a number of activities -- i.e.,

generation of specific technical reports, preparation of briefing papers, provision of short-term experts, assessment of regional training needs, etc. -- not envisaged at project inception.

For the Near East Bureau and relevant offices in the Department of State, ISPAN at present is largely defined as a mechanism to service the growing needs and to address some of the more complicated issues of the Middle East peace process. And, as evaluation team interviews revealed, ISPAN is seen as the most flexible and responsive mechanism AID has at its disposal to support the peace process.

2. ISPAN Outputs

Over the life of project, ISPAN has produced a very large and diverse body of professional work. Activities have led directly to contributions in all the output categories listed in the Project Paper -- see Section I.C above. Since November 1991, the project has worked on twenty-one different activities for the Bureaus, supported six regional activities, and assisted twelve USAID Missions in implementing seventy-five different technical support assignments.

Prior to November 1991, ISPAN had completed nine Bureau and ten Regional activities. It had also worked with nine USAID Missions in completing twenty-eight additional support assignments.

Annex E presents a listing of ISPAN activities and a brief description of all assignments since November 1991. Annex G indicates the sources of funding for all of these activities and their individual costs through the end of August 1993. Annex H presents a listing of all ISPAN reports resulting from these activities.

B. Conclusions

1. The Extent to which ISPAN has successfully met the Objectives as laid out in the Project Paper as amended

The evaluation team, after review of the impressive body of work produced by ISPAN and completing its interviews with a broad spectrum of project participants and beneficiaries, concludes that the project has fully met all of the objectives set forth in the Project Paper. Moreover, with the broadening of its agenda, it has successfully discharged a number of other assignments not envisaged at project design. In doing so, ISPAN has proven itself to be a very flexible and responsive technical support mechanism for the Bureaus and USAID Missions. And, finally, its publications and the direct interactions of its consultants with representatives of other donor agencies have had significant impacts on the evolution of their programs and projects in both the Near East and Asia regions.

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2. The Usefulness of the Project in Meeting the Needs of Missions and Bureaus in Water Resources

a. Has the project effectively met the needs of Missions through the buy-in mechanism?

Based upon the evaluation team's interviews with USAID and contract staff in three Missions in the Near East and Asia -- i.e., Egypt, Jordan and Bangladesh -- and the responses to the evaluation questionnaire received from twelve Missions, **the evaluation team concludes that ISPAN's performance in servicing the needs of Missions has been truly outstanding. Senior management staff in all of the USAID Missions visited were unanimous in saying that they were very satisfied with their ISPAN buy-in arrangements because they provided a very flexible mechanism to access a broad range of high quality specialists in a timely manner.**

Questionnaire responses from USAID Missions, as presented in Annex F, were tabulated and analyzed by the evaluation team. The questionnaire was structured such that a response of 1 indicated the most favorable response to the question posed and 5 was the least favorable. A score of 3 indicated no opinion.

In its analysis of responses, the evaluation team considered an average score of between 1 and 2 on any ISPAN performance question in Part A of the questionnaire -- i.e., questions 3 through 26 -- to indicate that Missions were very satisfied with ISPAN work. Average scores between 2.01 and 2.99 were considered to indicate Mission satisfaction in the performance area.

Judged by these criteria, Missions as a group were very satisfied with ISPAN work in 16 of the 24 performance areas queried and were satisfied with ISPAN performance in the other eight areas. There were no average scores higher than 2.50.

While average scores across all Missions indicate a high general level of satisfaction with ISPAN performance, individual Missions did express their dissatisfaction with ISPAN performance in certain areas. USAID/Egypt indicated dissatisfaction in two areas: the state of preparation of ISPAN teams upon arrival in country and ISPAN's timeliness in submitting the reports and other products by the deadlines specified in buy-in agreements. USAID/Indonesia also expressed its dissatisfaction with ISPAN's timeliness in submitting reports. USAID/Pakistan indicated it was dissatisfied in two performance areas: the quality of end-of-assignment debriefings by ISPAN personnel and the quality of reports and other products received. USAID/Nepal did not agree that ISPAN assistance had led to improvements in the design or management of water resources programs in the Mission's portfolio and strongly disagreed with statements that ISPAN assistance had helped to improve the operation and maintenance of specific irrigation and/or other water delivery systems and that host country capacity to deal with water resource issues had improved. Finally, USAID/Philippines indicated that it disagreed with the premise that ISPAN would continue to be relevant to the Mission's program until the project's PACD.

The evidence collected from Missions indicates that in the aggregate they are satisfied to very satisfied with the services and products they have received from ISPAN through their buy-ins. While individual Missions expressed dissatisfaction with ISPAN performance in certain areas, the evaluation team found no consistent pattern of Mission discontent in any performance area.

b. **What has been the typical mode of generating buy-ins?**

As far as can be determined from our interviews and review of project records, essentially all project buy-ins to date have originated from the Missions themselves and reflect Mission portfolio concerns and technical support needs.

ISPAN's role in "generating" buy-ins appears to have been limited. Staff from the TSC did do an introductory tour of Asia and Near East Missions early in the project to consult with Mission staff about their support needs, to make them aware of the range of ISPAN services, and to discuss the mechanism for accessing those services. ISPAN has also produced and distributed brochures describing ISPAN services and the access mechanism.

As project implementation proceeded and individual ISPAN activities were completed, project reports and other products were distributed and may have interested some Missions in additional buy-in activities. Finally, an increase in core funding since the mid-term evaluation has allowed ISPAN to resume production of a newsletter, which is widely distributed, and to conduct a series of monthly seminars on water resources issues in Washington, open to all interested parties. Both have been well received and are good advertisements for ISPAN's work.

To the extent that buy-ins have been "solicited" from the Missions during the project, the principal vehicle for doing so appears to have been an annual request from the Bureaus to their Missions. These messages, sent toward the end of each fiscal year, typically request Missions to outline their water resource program support needs for the coming fiscal year. Requests for assistance from ISPAN are then developed as operational buy-ins in a collaborative process between the individual Missions, Asia and Near East Bureau personnel, the ISPAN Project Officer, and the ISPAN TSC staff.

As would be expected in the latter years of project implementation, many of the buy-ins have been requests for follow-on work arising out of an individual Mission's prior collaboration with ISPAN personnel and consultants. Examples of this type of buy-in are: the series of team building and project coordination workshops and other training activities in Egypt, which build on the Mission's long history of collaboration with ISPAN; ISPAN's involvement in the phased design of a major water resources project in Morocco; and ISPAN's continuing involvement in water resource policy and technical issues in India and Bangladesh.

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c. **Has the project adopted a proactive approach in generating interest among client Missions in new approaches, technologies, etc. which have resulted in buy-ins?**

According to ISPAN TSC staff and respondents in the USAID Missions visited, the ISPAN mandate has not generally been interpreted as "proactive" in the sense of generating interest among Missions in a broad array of new approaches to water resource issues or advocating adoption of specific technologies. ISPAN TSC staff indicated to the evaluators that they do not consider themselves to be engaged in "selling" any particular approaches or technologies to the Missions. To the contrary, they maintain that they have deliberately tried to avoid being seen as having this "salesperson" role so as to engender more trust in their relationships with the Missions.

From the Mission perspective, several respondents indicated that they greatly appreciated the fact that ISPAN, while supplying them with an array of reports and other informational materials, did not present itself as an institutional advocate for any specific approaches or technologies. **These interviews left the evaluation team with the distinct impression that the vast majority of ISPAN staff and consultants have been -- and are now -- perceived as being genuinely responsive to the expressed needs and requests of the Missions in tailoring any recommendations, approaches and/or technologies to the specific situations and issues being studied. We have found no evidence to suggest that ISPAN has attempted to push any particular ideological syllabus on Mission or host country clients or operationalize any particular technological bias.**

d. **Has the project generated new thinking among the Missions or Bureaus which has been incorporated in new assistance projects?**

It is evident that the collaborative interactions between ISPAN staff and consultants and their clients in the Bureaus, USAID Missions and host countries have been very fruitful. Many new ideas and technologies have been introduced by ISPAN personnel and, after critical examination, adopted by the clients. Among the more outstanding examples of ISPAN's diverse assistance and interventions are the following:

- ISPAN design assistance with a major water resources project in Morocco which converted a PID design based upon a narrowly-based, empirically-invalid set of assumptions about silt accumulations in Moroccan reservoirs into a broad-based water resources project in one of Morocco's most important river basins.

- ISPAN contributions to the Flood Action Plan in Bangladesh which to date have resulted in the successful introduction of both GIS analytical techniques for flood control planning and environmental impact assessment guidelines and methodologies for project design.

- ISPAN contributions to the IMPSA policy formulation process in Sri Lanka which succeeded in opening the national debate over water resource policies to a broader and more diverse audience and, thereby, induced far more democratic participation in the policy formulation process.

- The innovative and facilitative approaches to team planning meetings, project and program coordination workshops, and regional seminars on water resource issues introduced by ISPAN staff and consultants in Egypt and several other countries.

- ISPAN technical and policy assistance to the development of the new regional water resources sector strategies for the Asia and Near East Bureaus, which demonstrate very considerable evolutions in AID thinking toward broadly-based approaches to water resource issues.

- The introduction of a more socially acceptable concept of "cost sharing" in Egypt which established a new basis for discussing the thorny issue of financing the costs of the massive irrigation systems in that country.

- The development of a highly responsive and effective technical assistance process for producing targeted, practical and action-oriented studies which meet the real -- and often politically sensitive -- needs of AID Bureaus and Missions.

- ISPAN contributions in analyzing pump policies and conjunctive water use in several countries which have changed the thinking and approaches of several donors and host countries to irrigation management projects.

In sum, then, it is the evaluators' conclusion that the ISPAN mechanism has been highly successful in introducing many new approaches to personnel in AID Bureaus and Missions, host country agencies, and other donor organizations. And, ISPAN interventions have been particularly valuable in several regional situations where the mere discussion of critical water allocation and management issues is often emotionally charged and politically sensitive.

e. Has the project been successful in leveraging assistance from other donors?

The evaluators have no evidence from project documents to suggest that ISPAN, as a project, was ever expected to play a direct role in "leveraging" development assistance from other donors in support of water resource activities. Moreover, we believe that, if ISPAN had attempted to play such a direct role, it would have seriously undermined the project's collaborative arrangements with both the client Missions and the Bureaus in Washington as a technical support facility.

This absence of a direct "leveraging" role for ISPAN vis-a-vis other donors, however, should not be taken by the reader as evidence that ISPAN activities have had no effects on the thinking and actions of other donor agencies. To the contrary, the evaluators believe that innovations introduced through ISPAN/USAID/host country collaborative activities have had -- and will continue to have -- very significant effects on how other donors conduct their business and allocate their resources. Examples of ISPAN effectiveness in influencing other donors include -- but are not limited to -- the following:

- Interactions between ISPAN consultants and World Bank personnel during the design of the Tadla perimeter water resources project in Morocco had significant impacts on the subsequent design of several components of the Bank's program for rehabilitation and management of the eight other large-scale irrigation perimeters in the country.

- Consultations between ISPAN consultants and representatives of the German Development Bank on the most effective ways to introduce decentralized management of potable water delivery systems in rural Tunisia facilitated the development of a unified donor stance on implementation of this program.

- The results and recommendations of the ISPAN study in the NESSI project in northeast Thailand were subsequently used by representatives of the European Community development agency in designing its project in the area.

- The research process and the results and recommendations contained in the ISPAN study of pump policies for irrigation in Indonesia are reported to have significantly affected the World Bank's approach to groundwater issues in that country -- and the project funding was reduced significantly from its projected level of $ 100 million to $ 54 million.

- And, finally, the Geographic Information System [GIS] and environmental impact assessment guidelines work under the Flood Action Plan [FAP] in Bangladesh have clearly influenced both donor and host country thinking and led to adoption of both GIS techniques and EIA guidelines and assessment methodologies in that country.

f. **Have the lessons learned and applied studies been effective means of synthesizing information and presenting it in a form which is useful to Mission staff or other users?**

ISPAN has had to constantly tailor its applied studies agenda to accommodate the recent evolution of AID thinking as to the place and importance of water resource issues in the agency's successive development strategies. The severe shifts in the availability of core funding for the project over the last six years, which are the inevitable result of the frequent changes in strategic emphases and senior management personnel in Washington, have caused ISPAN drop, modify or delay indefinitely design and implementation of many of the broad-based, synthesizing studies envisaged when the project was conceptualized.

Although the availability of core funding for the project has improved since the mid-term evaluation, due primarily to changed attitudes and more astute management at the Bureau level, there can be no doubt that, over the life of the project, the applied studies/lessons learned component has been less productive than it might have been had AID administrators facilitated project implementation as per the original Project Paper design.

It is also probable that, had CDM provided higher quality and more continuity in project manager leadership over the life of the project, the technical director might have had more time to accomplish some of the lessons learned studies on his own -- or with small groups of consultants.

The constraints placed on the development of the applied studies component within ISPAN have been only partially mitigated by the project's reliance on buy-in mechanisms to fund several of applied study activities. This is so because any Mission's interest in project buy-ins rightfully reflects its management's concern with its strategic approach to country-specific problems and its existing program/project portfolio.

While Mission interest has often resulted in the development of buy-ins on highly relevant country-specific issues and problems, it cannot be expected to extend to fully accommodate all the cross-cutting water resource-related issues pertinent even to the development of a defined geographic region, much less the entire AID development portfolio. That type of complementary study agenda can only be developed and funded by innovative leaders and managers at the center in Washington, who are cognizant of the evolving needs within the regions, have the luxury of being removed from the immediate and necessarily parochial concerns of Mission management, and have constant access to a world-wide network of specialists on water resource issues.

The fact that such an innovative senior management leadership team has not been in place in AID over the entire life of the project has been unfortunate for the evolution of ISPAN activities. The fact that the present AID management team has recognized the need for the two-pronged study approach to water resource issues and managed to assemble a modest funding package to support such studies is greatly to its credit.

ISPAN lacked sufficient funding to design and execute applied studies and lessons learned papers until April 1992. Since that time, only one lessons learned paper has actually been completed. The paper reviewed and analyzed policy approaches to engendering local participation in and decentralized management of water delivery systems in Sri Lanka and Tunisia [Eriksen and Poulin, 1993]. The findings, conclusions and recommendations of the paper were presented by the authors at a well-attended ISPAN water resources seminar at AID in June 1993. The seminar presentation evoked a lively discussion among the participants. The Asia and Near East Bureaus found the presentation to be interesting and useful. The report was distributed in October 1993.

3. The Adequacy and Effectiveness of Project Management and Project Design

a. How effective has the TSC been in meeting Mission and Bureau needs?

In evaluation team interviews, one Deputy Mission Director described the ISPAN TSC staff as "absolutely first-rate professionals" and went on to say that "there is no way we could have mounted our water sector activities as quickly as we did without ISPAN assistance". In another country, a senior host government official said that "ISPAN workshops are different from anything we have had before" and "no one is as professional as ISPAN facilitators, they are as aware of our activities as if they were living them -- Kathy Alison is tops". In the third country visited, USAID Mission officials said that "Peter Reiss has been very responsive to our needs" in designing and setting up a baseline water resources study and that "a very collaborative relationship between USAID, ISPAN and the university has developed". Finally, the same men indicated to the evaluators that "having ISPAN in an overseeing role for our baseline activity assures the quality of the final product and particularly the data analysis".

At Bureau level, officials interviewed were unanimously enthusiastic in their comments as to the value of TSC staff to their own activities. ISPAN in general and the TSC in particular got high marks from all respondents as being able to respond very quickly to Bureau needs to assistance. One senior manager said that he was amazed sometimes by the TSC's ability to respond overnight to difficult pieces of work and give him well-organized presentations on virtually any topic related to water resources. Another cited TSC staff work on the Bureau's newly developed water resources sector strategy paper and the support papers produced as Department of State/AID inputs for the Middle East peace talks process as outstanding examples of ISPAN's effectiveness in meeting his Bureau's needs.

Based upon the accumulated interview comments, questionnaire responses and other materials available to the evaluation team, **our conclusion is that the TSC, despite having several changes in the senior management position, has performed admirably over the life of the project. The TSC has proven itself to be a highly flexible and effective project mechanism for providing the Bureaus and Missions with high quality professional expertise and final products which are directly responsive to the clients' expressed needs.**

b. Does AID "get its money's worth" in maintaining a core group like this?

There is no doubt in the minds of the evaluators that AID has "gotten its money's worth" from maintaining the core group of high quality professionals and support staff provided under ISPAN for the TSC. This, however, is not the same as saying that the technical assistance provided under ISPAN was cheap. For this reason, we are reluctant, however, to have our specific conclusion in this case extended as a general endorsement of all technical support units within projects.

Clearly, the ISPAN TSC worked because it managed to retain the services of some exceptionally talented -- albeit well paid -- people over long periods of project implementation. They have made the TSC concept work for the benefit of their clients during periods of uncertainty and stress that must have stretched their collective patience and professionalism to the limit and for this they should be commended.

Conversely, there have been times during the project when CDM, as the prime contractor, might have been more responsive to AID officials' concerns about the quality of leadership being provided by the CDM's designated team leader. In this regard, AID officials reported that they had "to push pretty hard to get CDM to perform, at least on one occasion, in replacing a team leader".

c. Are very large and relatively long-term buy-ins appropriate for a centrally-funded project?

The evaluators do not support as a general premise the idea that "very large and relatively long-term buy-ins" are appropriate for centrally-funded projects simply because they are a convenient way for Missions to circumvent other more traditional AID mechanisms for contracting technical assistance. **All things being equal, we would much prefer to see any future ISPAN-like project operate in a manner similar to that currently being used in the Central Jordan Valley water resources study, where a small group of American experts is making periodic visits to Amman over an extended period to collaborate with a team of local researchers based at the University of Jordan. This type of assistance and collaboration appears to us to be an ideal way for Missions to access high quality experts not otherwise available for resident overseas assignments, provide for continuity in activity implementation, and ensure professional oversight for the entire design/implementation/ evaluation process.**

If the Central Jordan Valley study currently underway -- or previous ISPAN activities like the cost recovery study in Egypt or the pump policy study in Indonesia -- are good examples of the effective use of short-term American expertise in longer term Mission activities, the ISPAN participation in the Flood Action Plan activity in Bangladesh has been a very creative exception to the generally accepted rules about how Missions should use buy-ins.

In this case, the evaluators are convinced that, if USAID/Bangladesh had been forced to go through AID's normal project design and/or contracting processes to get the types of specialized technical expertise it needed to support the American commitments to the Plan activities, the expert support would have arrived in Bangladesh too late to be effective players in the donor/host country interactive FAP process.

In that event, AID would almost certainly have lost an exceptional opportunity to assist Bangladesh finding more rational ways to deal with its water resource problems. **By using the ISPAN buy-in mechanism creatively and exceptionally, USAID/Bangladesh and the Asia Bureau have succeeded admirably in inserting highly professional expertise, new ideas and innovative technology into the FAP process in a timely manner.**

d. How do long-term buy-ins affect "normal" buy-ins, if at all?

The ISPAN involvement in the Bangladesh FAP is the only project activity the evaluators think would be classified as a "long-term buy-in" in AID contracting terms -- i.e. it is the only one that has had expatriate specialists resident in the host country for more than one year -- although the IMPSA activity in Sri Lanka and ISPAN's program in India have had long-term local staff in certain positions.

In the case of Bangladesh, there is little doubt that the FAP activity, which has absorbed almost one-half of all ISPAN funding, has made demands on the ISPAN TSC staff at least proportional to its size and importance in the overall project. In this regard, ISPAN TSC staff stated that, as long as the USAID/Bangladesh buy-in is structured to provide sufficient funding for support of necessary staff, the FAP involvement will not affect other "normal" buy-in activities. In fact, they report that there have been some positive cross-effects from the FAP involvement including:

- The experience gained with GIS technology and EIA methodologies which have been relevant to activities in other Missions;
- The experience gained with working in an interactive multi-donor assistance environment; and
- Cost economies gained by piggy-backing trips by ISPAN personnel to other USAID Missions on travel to and from Bangladesh at no cost to the buy-in.

USAID/Bangladesh reported that, early in the FAP involvement, there were a number of problems in sorting out the proper managerial relationships between the Mission, the Bureau, the AID contracts office, the relevant host country agencies, and the ISPAN TSC. ISPAN resident staff in Bangladesh confirmed that these problems had made initiation of FAP activities somewhat difficult. They said that their principal difficulty over time was in establishing "who was the client" and what were the proper lines of authority and responsibility in receiving instructions and reporting.

Both parties agreed that most of the early buy-in management problems arose because all the project participants were moving quickly into a new type of relationship not envisaged in the Project Paper or experienced with any other ISPAN activity.

Overall, the evaluators have seen no evidence to suggest that the FAP involvement in Bangladesh has diminished the quality of ISPAN's assistance to other Missions and the Bureaus in any way.

e. Was the concept of support to regional institutions ever seriously addressed?

The ISPAN Project Paper anticipated that three or four regional institutions would be selected for long-term collaborative relationships with the project. A list of candidate institutions was even included in the Project Paper. ISPAN was to offer research and technical consulting opportunities to these institutions with the objective of further strengthening their capacities to serve as regional resources for international donors and host governments in irrigation development.

ISPAN anticipated a relationship which would permit active institutional participation in designing and carrying out applied studies and would include institutional staff in international consulting assignments, international seminars and workshops, and in publishing a number of regional irrigation newsletters.

Early in the project, TSC staff and representatives from the two American university sub-contractors visited candidate institutions in Asia and the Near East to discuss program possibilities and assess the regional institutions' capacities and interest in participation. As a consequence of these visits, the Hassan II Institute of Agronomy and Veterinary Science [IAV] in Morocco and the Central Luzon State University in the Philippines were selected for participation and sub-contracting negotiations were initiated. A third institution in India was to have been selected for the collaborative effort.

Unfortunately, soon after a regional irrigation management workshop in Kathmandu, Nepal in 1988, it became evident that core funding available for the project would not be sufficient to cover the costs of even a minimal program for the two institutions already selected. ISPAN made commendable attempts during 1988 and 1989 to involve the two regional institutions in a series of project design and evaluation activities in collaboration with the two American university sub-contractors. However, further cuts in ISPAN core funding in 1990 effectively doomed prospects for continuation of the regional institutions component.

In late 1991 and coincident with the ISPAN mid-term evaluation, the role of the selected regional institutions in the project effectively ended with the participation of seven specialists from IAV in the final project design of the Tadla water resources project in Morocco.

The formal end of the regional institutions component of ISPAN dates from 10 April 1992. On this date, the prime contract was amended to formally recognize the conditions which had existed through most of the brief life term of this component and to remove any contractual obligations for involvement with regional institutions from the AID/CDM prime contract.

It should be noted, however, that ISPAN has worked with local groups in almost every country in Asia and the Near East. In most cases, these groups are stronger than they were before. In India, for example, ISPAN is helping to strengthen the capability and reputation of one of the few private sector firms in the irrigation sector. Perhaps this should have been

the way the original project was designed since ISPAN has made a very important contribution to building capacity in local institutions which was wholly in the spirit of what was intended in the regional institutions component.

f. Was the concept appropriate to a centrally-funded project?

The evaluators see the concept of involving staff and resources of regional institutions in specific ISPAN/USAID Mission activities as highly appropriate. For example, the participation of Moroccan specialists from IAV in the design of the USAID water resources project in the Tadla perimeter greatly enriched and facilitated the design process. And, we believe that the USAID/ISPAN activities in other countries and the regional institutions themselves could have benefitted and been similarly enriched by greater participation in the project.

This said, however, the evaluators believe that any participation of regional institutions -- and American universities for that matter -- in an ISPAN-like project should be strictly limited to activities which directly further the specific objectives of the project. This type of centrally-funded project should not be seen by AID or the contractual participants as an opportunity for institutional support activities not essential to execution of buy-ins or expeditious discharge of assignments from the Bureaus.

g. How have changes in AID management, Bureau organization, and policy directions affected ISPAN?

In six years of ISPAN implementation, the project has had five different AID project officers and more changes in AID officers responsible for administration of the CDM prime contract. In addition, there have been five different restructurings of the regional Bureaus and at the highest levels, three changes in national administration and AID leadership.

While some of these changes were inevitable, others, in the opinion of the evaluators, can be attributed to poor management within AID. The cumulative effects of the multiple changes has been a great deal of uncertainty in the implementation of the project. As one interviewee said ISPAN management has been "jumping from log to log" trying to stay afloat for the last three years.

For this effort, ISPAN management and staff must be given very high marks for their steadfastness in remaining focused on the essential activity tasks before them. They successfully maintained a high degree stability in project operations through some very challenging times when certain senior AID managers adopted a distinctly short-sighted and hostile stance toward the place and value of the project in the Bureau's portfolio.

The uncertain project environment engendered by the changes within AID led directly to increasing the costs and lowering the efficiency of the project implementation process. ISPAN staff have been forced to devote limited management time and resources in rewriting ISPAN Action Plans to accommodate shifts in AID policy directions. Annual work plans

have had to be adjusted to include support for Bureau activities not anticipated when the project was designed. For example, with the multiple reorganizations of the regional Bureaus, ISPAN was asked to contribute to the development of two different Bureau water resources strategies when no specific work in this area was envisaged in the Project Paper.

Although many of these new activities have been extremely useful to AID and have proven the great utility of AID's having access to the ISPAN support mechanism, they have demanded rapid changes in emphasis in the ISPAN implementation agenda. Similarly, frequent changes of contracts officers for ISPAN have forced project managers to implement activities under shifting interpretations of AID regulations and changes in paperwork requirements as contracts officers changed. Delays in the execution of contracts have increased the costs of recruiting for ISPAN activities as consultants were forced to withdraw from scheduled assignments and replacements had to be recruited and passed through the approval process.

h. **How has the project performed when faced with these variations in oversight and direction?**

As stated above, the evaluators believe that ISPAN management and support personnel have responded with an exceptionally high level of professionalism to the uncertainties in AID direction and variations in oversight engendered by changes in personnel and policies within AID. We believe that the entire staff of the ISPAN TSC should be commended highly for their collective effort to keep a valuable and highly productive project on track over the last three years.

i. **Have limitations on the flow of financial resources affected the project?**

The principal consequence of funding limitation has been that it constrained ISPAN ability to capture AID's own relevant experiences in the water resources sector and enrich them with contributions not directly linked to Mission buy-ins. It has also limited, until very recently, the project's capacity to synthesize valuable experiences within the Near East and Asia regions and disseminate this information to a broad audience on a regular basis.

In terms of specific activities envisaged in the Project Paper, the loss of core funding eliminated participation from the senior advisory group of experts [SAGES], stopped ISPAN support for consortium member home office back-stopping, and forced discontinuation of annual project planned meetings after the third session.

Sharp reductions in core funding at certain points in the project, coupled with the shift to greater reliance on buy-ins, appear to have reduced incentives to participation for the two American university sub-contractors and increased proportionally the roles of DAI, ISTI, TRG and, to a lesser extent, Harza in project implementation. Finally, funding limitations caused discontinuation of the participation of regional institutions in project activities after September/October 1991.

j. **How has ISPAN performance been affected by its involvement in activities not envisaged in the Project Paper?**

There is a general consensus among persons interviewed for the evaluation that ISPAN has responded in a superior fashion to AID shifting priorities over the life of the project. It has provided valuable support for activities not envisaged in the Project Paper. In doing so, it has proven many times over its utility to AID as a very flexible mechanism, unmatched in its capacity to respond rapidly to the complex demands of the Bureaus and Missions.

The experiences in dealing with the unanticipated requirements of the evolving AID development agenda have undoubtedly demanded a higher level of managerial expertise with ISPAN than is normally expected in other project situations and required TSC staff to be better managers of project resources.

The broadening of the project agenda -- and ISPAN's successful discharge of its additional responsibilities -- has, in the opinion of the evaluators, deepened influence of and respect for ISPAN consultants in the Bureaus and among the Missions.

k. **Has an appropriate financial system been put in place to account for core-funded and buy-in activities?**

The evaluators have reviewed the accounting reports produced by the ISPAN financial system and discussed the capabilities of the system with relevant TSC staff The monthly and quarterly reports reviewed -- Annex G for sample reports -- clearly present the status of each ISPAN activity and categorizes it under one of three funding types Accounting for each activity is shown as obligated amounts, costs invoiced during the current month, total costs invoiced from inception to date, and the balance remaining for the activity.

In the opinion of the evaluators, the ISPAN financial system in place at the time of the evaluation is fully appropriate to the needs of the project and the financial reporting requirements of AID.

l. **Has this financial system been responsive to the needs of the Missions?**

Prior to July 1992, apparently adequate financial accounting information was not getting out to field missions in a timely manner. ISPAN was supplying financial accounting information on Mission buy-ins only to the regional Bureaus in Washington. The Bureaus were responsible for conveying accounting information to the Missions.

This two-step transmission system for financial reporting apparently was not performing to the satisfaction of the Missions. In an effort to address the Missions' concerns, the Project Officer suggested that a new reporting system be developed to send information to all missions and an agreement was concluded between the Bureaus and ISPAN to modify the reporting system.

For the last fifteen months, therefore, ISPAN has been supplying monthly buy-in status reports directly to all Missions. The new system is reported by all parties interviewed to be successful.

C. Lessons to be Learned from the ISPAN Experience

- The evolution in AID's experience over time with the design and implementation of the Water Management Synthesis Projects and ISPAN has demonstrated that projects do improve over time and that valuable lessons are learned and acted upon by project designers and implementors.

- ISPAN has proven itself to be a highly flexible and responsive project mechanism of great value to the Bureaus and Missions.

- Broadening of ISPAN's agenda to include all aspects of water resources development and conservation was a wise strategic decision which increased the utility of the project to its clients.

- If an ISPAN-like mechanism is to perform optimally, AID management and contracts personnel must be able and willing to facilitate new approaches to novel technical assistance situations.

- It appears that the American universities that participated in the ISPAN project may have structures and resources better suited to implementing core-funded applied research and synthesis activities, than short-term consultancies. While certain professors -- e.g., Dr. Michael Walter from Cornell and Dr. Donald Slack of the University of Arizona -- contributed significantly on short-term consultancies, the universities overall proved themselves somewhat less suited to providing short-term support for Mission buy-ins than consulting firms. This is so because most university scientists teach at least part time and their availability is dependent upon class schedules. Universities generally budget faculty to be full-time, with strict regulations on off campus consulting. When faculty members accept such assignments, another faculty member is often overloaded and administrators tend to frown on this use of faculty time. Unless a particular university has a liberal consulting policy, it is often difficult for well-qualified -- and, particularly, more junior -- faculty to get released for short-term assignments of more than one or two weeks, except when classes are not in session.

D. Recommendations

- During the remaining months of the projects, maximum concentration should be placed on completing the applied research/lessons learned reports already scheduled and synthesizing project experiences across the regions in the project completion report.

IV. ANTICIPATED REQUIREMENTS FOR A FOLLOW-ON WATER RESOURCES SUPPORT ACTIVITY

ISPAN and the predecessor Water Management Synthesis Projects were created to facilitate AID's access to expertise in the irrigation water management field. The rationale was that the expertise would also improve through its experience with the AID activities.

Management of irrigation water was considered sufficiently unique to require special attention, since direct transfer of American irrigation technologies into developing nations is risky and more experience was needed.

A. Findings

1. Performance and Need

The ISPAN project has followed the above stated model, having expanded its scope and certainly increased its experiences. It has provided convenient and rapid access to technical help, expertise has improved due to a credible selection process and perhaps as important, the improvement has come from the experience gained through execution of the project.

The project has evolved into a flexible, experienced vehicle that is tackling subject matter beyond the narrowly-defined field of irrigation. In that process, management techniques and operational mechanisms were needed that were not anticipated in project design.

There is need for an ISPAN type project and the need will continue as long as AID projects are involved with planning, procurement, management, disposal and/or quality of water for any of its intended uses. At any given time, there is much accumulated technical expertise and wisdom within AID's professional staff; however, this expertise and wisdom often does not get documented and passed to the next generation. The loss of information is phenomenal. A central or regional funded project would provide continuity.

The survey of twelve Near East and Asian Missions [Annex F] indicates that:

- Missions will require access to expertise for the design, implementation and evaluation of water resource activities broadly defined;
- Missions will need a mechanism like ISPAN to service their needs and those of the host governments engaged with water resource issues;
- The mechanism should be limited to provision of only those resources that cannot or will not be secured by the Missions themselves; and
- Missions have no clear choice of whether the mechanism be regional or global in scope.

2. Regional Focus

Recently, regional water and environmental issues have become more important in AID's project portfolio. Water and its inherent relevance has always had regional as well as site specific importance; however, recent and historic political events worldwide have focused attention on the regional importance of water. The Near East peace discussions and the Eastern Water Studies with the resulting Flood Action Plan for the Brahmaputra and Ganges River basins in Bangladesh are areas of current heavy involvement by ISPAN. Water is the key resource. Final settlement of important water issues in these regions will require years and much cooperation among nations.

ISPAN was able to become directly involved and to make significant contribution to these efforts because the nature of its mandate permits flexibility to function where and when needed.

There are other river basins -- e.g., the Nile and the Mekong -- that might require attention in the future. These, if not now, will eventually require assistance by the world community since water is the production and environmental base in any river system. The United States government will assuredly play a role.

3. Technical Assistance

The technical quality and quantity of ISPAN's output has been timely, well done and, considering the need to respond to rapidly developing issues, sizable. ISPAN has been able to assemble technical advisors who are experienced, able and qualified in the various diverse assignments called for. A contributing factor is ISPAN's practice of securing the best possible advisors through competition and not necessarily using prime or sub-contractor personnel.

Placing advisors in-country on long-term assignments is an unusual and interesting arrangement not necessarily anticipated in the project design. ISPAN is regionally funded, controlled and managed and Missions are somewhat out of the management loop and sense a lack of control. This has not caused undue difficulty; however, future central or regional projects should provide clear detail regarding procedures and operational rules for central/regional project personnel, whether local or expatriate hire, working overseas for more than a month or two.

An ISPAN type project is ideal where local hire technicians can be used to assist Missions in need of studies, reports, guidance and/or service requiring advisors for longer than a few weeks. Examples include the Sederhana study in Indonesia, the Jordan Valley Baseline Survey and assistance to the Mission in India, where a relatively low cost in-country operation is implementing a long-term program. However, these activities are successful only if frequent expatriate assistance is provided to ensure that the programs are followed diligently and according to technical design.

4. Project Preparation and Evaluation

AID has increasingly used contractors to prepare project analyses and designs. Project preparation is important and skill and experience are needed. Project evaluations likewise should be done by experienced, highly trained professionals who understand AID's portfolio in any given field and geographical area.

Good project design requires a thorough knowledge of the environment into which the project will operate. Reasonable attempts should be made to learn as much as possible before the design stage. This can be done with experts in the appropriate fields who make rapid field investigations with local experts. The same group of exerts should logically design and install a monitoring system to follow the project to completion. It is important that AID maintain highly qualified sources instead of contracting anew for each and every project.

ISPAN is ideally situated for these activities because of its involvement in water related activities on a regional scale and because of the continuity and knowledge it brings through its continued experiences with many associated issues.

5. Training

ISPAN has been highly successful in carrying out training programs. The project workshops in Egypt have been especially helpful to project start-up and in providing implementation corrections at mid-project. All participants (host country, contractors and USAID) are unanimous in praise for the role ISPAN planners and facilitators played in the success of these workshops.
There are some training exercises that can best be provided by agents not closely involved with implementation of a particular activity. There are also needs for training materials that are practical, simply articulated and based on experiences learned where there has been successful implementation of transferable technologies. ISPAN has been helpful here also.

6. Broader Water Issues

Current worldwide attitudes require that social and environmental issues related to water development be given greater emphasis. Water quality, soil and plant degradation, resettlement, wildlife preservation and water rights are all issues requiring more and more attention.

During the past two years, ISPAN's has been asked to broaden its scope to include issues not directly related to irrigation. The Eastern Waters Study, the Water Resources Action Plan for the Near East, the Gulf of Aqaba Environmental study and the Jordan Valley Baseline Survey are a few examples of ISPAN's responsiveness. This has had a positive effect on the value of project output and is more in line with AID's current directions.

B. Conclusions

1. The Concept of Regionally or Centrally-Funded Projects

a. Given the trends of AID funding and staffing, does the concept make sense?

Discussion and negotiation are replacing confrontation in the modern world. Negotiators need rapid access to the best possible information in the form of reports, papers, facts and advice that has been carefully collected from the best knowledge and data available. Who will collect, store and update such information? We believe that, for issues related to water resources, the best dependable source is an ISPAN type project that has this as one of its functions.

Increasingly, AID does not have the funding nor the technical expertise to meet the needs for managing large water resources portfolios. The trend, for some time, has been to reduce these in favor of working cooperatively with other donors where AID provides technical expertise and training. The trend also has been to direct attention away from infrastructural actitivies in favor of institutional development programs.

Regional water and environmental issues are becoming increasingly important and have led to changes in development focus. Water and its inherent relevance has always had regional as well as site specific importance; however, recent and historic political events have focused attention on the regional importance of water resources. AID is responding to these issues and ISPAN has and is playing an important role.

Regional water issues will become more and more important as peace among nations becomes real. The Middle East, Southeast Asia and the Nile systems are important because of water rights issues among nations. Usually these settlements lead to assistance programs from nations outside the direct arguments. Water quality is another concern that currently receives much attention; so much so that a new field of research and development has evolved even in developed countries. Concepts, standards and procedures need to be implemented in all nations. This will be a major focus of new water resources efforts regardless of AID's involvement.

Since there are regional water problems and more are anticipated, it makes technical and economic sense to address them globally.

b. What are the advantages/disadvantages of a regional versus a central funded project?

This is difficult to evaluate since the reorganization of AID is in process. If operations and management of AID remains essentially unchanged, the advantage of being regional is that the project would be easier to keep focused on the practical and real problems important to the region. Centrally funded projects, in the past, have tended to be more academically

oriented, producing well articulated and scientific results but, too often, not focussed on real and current problems existing at the mission level.

On the other hand, if a central bureau is to be given the charge of the technical servicing AID with direct responsibility to the regions and missions, it would be advantageous to create a central project. A central project would bring experiences from all regions into the picture. Properly managed, there need not be concern over losing regional control. In fact, the buy-in feature would permit particular regions to dominate the activity.

If global in nature, the project would be involved with water related issues in all AID countries. Its world-wide mandate would provide a knowledge and experience base that should be more valuable to AID than if the project was designed to operate in only one region. Water resource management and the associated technical, social, political and environmental problems is sufficiently complex to require special attention from the aggregation of all experiences possible. Further, the management of one centrally funded project versus more than one regional project would provide cost savings because of less administrative cost per unit of output and reduced numbers of technical staff.

c. What kinds of services can a regional or central funded project provide well, or not provide well?

Regional and/or central funded projects should be designed to provide technical help to Missions and Regional Bureaus in situations where procurement is otherwise difficult or impossible. This includes:

- Provision of advice, papers, strategy and reports on issues that suddenly arise where AID neither has the appropriate technical expertise nor is there sufficient time to procure assistance through normal contracting processes;
- Provision of continuity of AID technical experiences beyond one or two projects;
- Service where it is important that the assistance have knowledge and experience from other areas of the world;
- Provision of training needs assessments and training on regional bases;
- Examination of issues that extend beyond the confines of a single country or region;
- Using AID's and other's experiences to design and provide management and technical guides to improve project implementation; and
- Perform special service activities for Missions with reduced direct hire AID staffs.

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Central/regional funded projects should not be utilized for long-term technical assistance assignments where close working relationships with local government institutions are required to implement a particular project. This is not due to lack of qualifications, it is simply that other mechanisms can do this particular job equally well and the work is highly site specific. Other than this, there is no reason to believe that there are any contractual services that could not be provided by a properly designed regional or central funded project.

d. **Can a regional/central project fill gaps in AID's technical staff?**

Certainly part of the rationale is to provide technical assistance in areas where AID personnel are deficient in numbers and/or technical credentials.

Personnel on contract to AID cannot replace direct hire technical staff, however they can become their eyes and ears to provide needed information especially on sensitive issues.

2. **The Importance of Water Resources**

a. **Is water resources important enough to the Near East Bureau to warrant a specific stand alone project?**

Water issues are inseparable from peace initiatives in the Middle East. They must be addressed. The United States is already involved with policy development regarding these serious issues. Regional knowledge and experience regarding the political, economic, social and technical aspects of natural resources are required.

In order that there be consistent dialogue on political, social and technical issues, there is need for regional standards, special knowledge and experience of the region and accurate quantitative and qualitative information readily available to AID. This can best be accomplished by an entity not directly identified with any specific country program.

There are other regional/central funded projects, operating and anticipated within AID, dealing with water related issues such as environment, health, agriculture, policy, etc. Currently there are thirteen centrally funded and two regional funded projects concerned with agriculture, environmental and health issues, some are water related. However, ISPAN is the only one with talent, expertise and a mandate to deal with water resources planning, policy, effective use, conservation and management in the agricultural sector. The WASH project currently deals only with potable water and other environmental and health-related projects have only implied focus on water.

Water is important enough in most regions to warrant special attention. Water should not become buried within other projects with different agendas. Most host countries will place water -- its control, management, conservation and quality -- high on the priority development needs. In order to be effective and have influence on development directions, AID should do likewise.

b. What is the rationale for a project?

In spite of major emphasis and billions of dollars spent on irrigation in the past twenty years, water resources management and development improvement continues to be a major concern in the developing world. This is caused by population expansion and the ever increasing need for more food, but, perhaps just as important, the regional nature of water is being emphasized as countries attempt to work out amicable agreements over the management and protection of common water sources. Increased attention on environmental degradation also brings agricultural use of water directly into the development picture, regardless of location.

A properly designed and managed centrally-funded water project, the purpose of which is to provide AID with technical assistance in a broad area of activities, provides a flexible vehicle having high quality output, rapid response time and acceptable cost per unit of time or product.

Rapidly changing world conditions create situations where AID needs technical help that can react quickly to issues with little prior notice. Often these issues are water related. The Middle East peace initiative is a good example. Many working papers were produced expeditiously. Without a regional project in place, it would have been impossible to provide the quantity of work needed.

Regional or centrally-funded projects permit exploring new ideas that are not possible through other contracting mechanisms. The contractor can be called upon for rapid response information on issues that were not contemplated prior to project initiation.

Rapid response to AID needs is an essential attribute of central/regional funded projects. The scope requires that it be able to respond to a variety of problems in a given area, therefore it must have a stable of talent and current knowledge about the subject. This is essentially the basis for this mechanism.

Global issues are best served by global projects. There is strength in seeing a broader picture.

3. The Expected Requirements for Water Resources Services

a. What are the requirements in the Near East region over the next 5 to 7 years?

There are many areas that require attention, if not now, in the near future. Most of these are also appropriate for regions other than the Near East. The need will be for studies to provide readily available knowledge, position papers, reports and analyses. Some will lead to projects. All will lead to world discussion. Important ones are:

- Water quality -- industrial and agricultural pollution, ground water quality, quality standards, monitoring techniques, etc..

- Water conservation -- loss reduction, irrigation efficiency, reuse of irrigation and industrial waste, cropping patterns, monitoring techniques, etc..

- Water supply -- mining of ground water, across and within country diversion, pumping techniques, water inventory, water spreading, evapo-transpiration suppression, etc..

- Excess water management -- flood control and management, surface and sub-surface drainage, erosion control, etc..

- Water rights -- current status, conflict resolution, water user associations, new initiatives

- Water pricing -- current status, legal requirements, true value of water, subsidies, etc..

- Health -- water borne diseases, importance, extent and control.

There will be a need for coordination among donors when all of the above issues are discussed and plans for improvements made. The solution of water issues are important for stable peace and there is little margin for error.

A new Palestinian state will require practically everything related to water supply, control, use, conservation and quality and management control. The need for intensive and extensive planning and training will be enormous.

b. What types of projects are expected?

AID no longer considers irrigation water management as a unique technology for project design. To improve stability, future projects should consider the water resource from its origin through the delivery system, on to farms and finally through the waste systems, both below and above ground. In all related processes, the environmental aspects must be given special consideration and in many cases these issues will require special techniques and will govern whether or not projects are implemented.

Projects will necessarily encompass aspects of efficient use of water, enhancement of water quality and/or improvement of water management in the general sense. To increase the effectiveness of hardware directed projects, there will be a need for specific planning and training efforts incorporated into all projects.

The opportunities for project ideas are great and careful planning will be needed to address them in a logical sequence Timing and order will also be somewhat dependent on the unfolding regional events. The Bureau needs to be flexible enough to handle new issues rapidl..

Project planning will be subjected more and more to regional and global scrutiny. In this regard donor and host country coordination will be essential.

Large projects will certainly fall into the categories. These will include water for human consumption, as well as agricultural water supply and use:

- Water resources planning -- apportionment to various uses, flood protection and management, watershed management, erosion control, diversions, treaties, etc..
- Strengthening the water delivery -- better measurement, quality control, reduced losses, more precise timing, more user involvement, removal of health hazards, etc..
- Improving water management -- standards, improved methods of application, better measurement, involvement of users, reuse of waste, reduced contamination of ground and surface waste water, training, etc..
- Increasing water availability -- pumps, storage, distribution, treatment, ground and surface water law, trans-country and in-country diversion, dams, desalinization, etc..

Smaller projects or components of larger projects to strengthen the sector might include:

- Water rights and pricing -- surveys, constraints, opportunities, etc..
- Water inventory -- monitoring use and disposal, identify extent of regional shortage, extent of losses through poor management, extent and source of quality problems, etc..
- Training of users and suppliers -- water measurement and inventory, conservation techniques, environmental concerns, health concerns, quality measurement, etc..
- Policy issue studies -- quality standards, private sector roles, cost sharing and constraints to regional cooperation.

This is not meant to imply that AID would or should initiate projects in all of these areas. However, AID should be the leader in providing the technical help and software to enhance the success of projects whose purposes are to improve regional harmony and water management techniques in all sectors.

Whatever projects are designed and implemented, it is important to identify precise and detailed monitoring mechanisms to be in force during implementation and after project termination. Water is such a scarce resource in the region that small error gaps in knowledge can mean large mistakes in implementation direction.

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c. Is there a need for a central or regional funded project for water resources?

Given the requirements for water resources services and the assessment of project needs, stated immediately above, and the rationale for a regional/central project presented in 2.a and 2.b above, little can be added here in support of a regional or central project in water resources. The Near East is especially important at the moment but other regions will have need for the same type of project, although their need may not be immediate. This implies that a global project would be more beneficial to AID than a project with only regional focus. The global experiences and knowledge would enhance its value to any one region.

4. Alternatives to a region/global funded project

Each Mission, in need of overall knowledge and assistance in water resources, could contract for the technical expertise to perform the type of studies and services provided by a central or region funded project. Obviously, not all Missions would perceive a need and coordination among Missions would require special attention and there would not be a regional focus. Regional issues require regional focus.

A better alternative would be for AID to directly hire the appropriate experts keeping in mind that, besides purely technical, expertise is required in the historic, environmental, economic and social aspects; but given the emphasis on reduced government this is not likely. It would, however, be more cost effective.

Another alternative to a regionally funded project in the Near East is to incorporate most of what a regional project could accomplish into on-going Mission projects. This would practically eliminate formally programmed continuity, cooperation among nations and the flexible rapid responses to immediate issues that are inherent in a regional project unless AID personnel at the center were assigned this coordinating role.

ISPAN could be extended to provide for the needed technical assistance and service; however, this is not an alternative because ISPAN already is a regional project.

Whatever mechanism is used to procure technical assistance, it must be recognized that, in water resources management in the developing world, the talent is definitely limited. There are few -- if any -- organizations in the United States that can be called upon to provide all of the experience and knowledge needed in water resource development and management from their own resources. Even so, the known expertise in the United States has not been fully used. There is also expertise in the low-income countries that has not been tapped for anything other than local assistance.

C. Recommendations

Water is a baffling resource. It does not "stand still" for management as do other natural resources. Among other things, it flows, seeps, evaporates, escapes, returns, becomes polluted, then purified and can do all of these naturally. Artificial management further complicates it's behavior. Water resources planning and management, whether for use, disposal or control will always be key elements in any nation's growth. Agriculture, municipal, industrial, navigation, tourism and pollution control are all users that share a resource that sometimes is in excess but often is in short supply.

We therefore assume that AID will always be involved with water as it relates to recipient country economic and cultural growth. The consequent problems -- technical, social, economic, political and environmental -- will always be important and in need of refinement. Resulting issues are not peculiar to any one region; they are global and experienced technical and non-technical assistance will be in demand and important to project success.

The following recommendations are made based on our findings and on the future of AID's programs as we currently perceive them.

- Environmental aspects of water resources development can no longer be neglected. However, many aid recipient governments are currently apprehensive regarding environmental issues, feeling they have more important development issues. Water resource projects can provide convenient and effective access to influence attitudes and the environmental programs of these nations.

- Environmental, social and political aspects should be given more importance in water resource development as regional issues dominate.

- A different set of specialists is required when quality and environmental issues are considered in water projects. Public administration and chemistry are fields that come to mind, in addition to the engineering, social, training and economic expertise available at ISPAN.

- Excellence requires time because experience is so important. Tradition indicates that field experience in water resources management is more important and helpful to implementation of projects than is purely technical and/or general knowledge.

- Population increases reduce per-capita availability of fresh water. Since agriculture generally is the major user of water, improvement of on-farm use of water should be given increased importance because of the potential to release water for domestic and other uses and to increase food production.

- AID should have flexible, competent, experienced and broadly focused technical assistance in order to deal with water issues in the future. It is unlikely that the

restructured and "right-sized" agency will be able to adequately handle these important programs from its own internal technical resources.

- A mechanism should be maintained by AID to provide technical assistance in a broadly defined field of water resource planning, development and management as it relates to its various uses.

- The mechanism should be staffed with -- or have ready access to -- a stable of true experts in the field of water resources who have relevant experience in developing nations and special knowledge of and experience with the inherent political, social, economic and environmental aspects of regional water problems in the areas of AID's involvement. The unit should be sufficiently funded to enable it to maintain data bases of AID and other's experiences in water development, respond to AID rapidly, professionally and effectively and have easy facility to place personnel (expatriate and/or local) in-country for relatively long periods of time depending as necessary.

- Because of the crucial importance of water as a development resource, any ISPAN type follow-on program should be oriented on water and not on the broader environment.

- The unit should respond to Missions and Regional Bureaus with short-term training and technical assistance, long-term teams at site for special programs or studies, reviews and reports. Important examples include:

  - o Review past water project records to collect, organize and analyze economic, social and technical performance data into usable data bases and improve them over time.

  - o Provide Missions with the latest known information regarding specified in-country project activities and other information or data considered relevant from projects outside the country in question.

  - o Participate in water resource project planning, design and evaluation whenever possible and to use these experiences together with analyses of similar activities to prepare and update "lessons learned" guidebooks of experiences.

  - o Prepare training manuals and guides specifically for designers and implementors of water resources related projects and provide training in their use.

  - o Maintain a bibliography of training aids and technical literature in the water resources field and provide it to Missions with recommendations regarding specific items.

- The mechanism should be global in nature, but care must be taken to guarantee that the focus is on Mission needs. Regional activities can be handled within a global project without loss of emphasis or detail.

- The model should continue efforts to secure the best technical experts, both within and outside the United States. There are foreign individuals and firms qualified in this field. Where possible they should assist with buy-in activities.

- The model should contain clear language regarding the operations and management rules regarding placement of expatriate and local teams overseas. AID's normal definitions, regulation and procedures may need modification to facilitate project management and communication.

- Because of the importance of water issues everywhere, the project could become involved in many coincident activities. A simplified monitoring system should be installed so that the AID Project Officer would know the status of each activity on a continuing basis. In this regard, the Project Officer should be a major player in project implementation.

- Specific guidelines should be made regarding the type, extent and amount of buy-in activities and their relationship to core funding.

- There should be a minimum number of sub-contractors. CDM has secured excellent technical assistance from outside the sub-contractor's reservoir of talent.

REPORT ANNEXES

ANNEX A

IRRIGATION SUPPORT PROJECT FOR ASIA AND THE NEAR EAST
FINAL EVALUATION STATEMENT OF WORK

ANNEX A

IRRIGATION SUPPORT PROJECT FOR ASIA AND THE NEAR EAST
FINAL EVALUATION STATEMENT OF WORK

BACKGROUND

The Irrigation Support Project for Asia and the Near East [ISPAN] was authorized in September, 1986, as an eight year project. The project is currently entering its final year of implementation and the Near East Bureau is currently considering alternatives for meeting the bureau's and the field missions' needs in the important water resources sector.

The purpose of this evaluation is to determine whether the project has met its stated objective and to determine (with special emphasis on the Near East countries) if there is a continuing requirement for services in the water resources field both by the Near East Bureau and field missions. Further, if there is a requirement, what are the alternatives for meeting this need.

The **project purpose** was to assist Missions improve the quality and performance of their irrigation portfolios. The project was designed to provide technical support to Missions to address problems, conduct assessments, assist with project designs and evaluations, provide assistance for the development of training curricula, materials, etc. and help assess and share information about lessons learned and experiences throughout the ANE Bureau.

This will be the second evaluation of ISPAN. The initial evaluation was conducted by DEVRES during late 1991. One of the important Lessons Learned from the evaluation was that:

> Water must be conceptualized broadly as a natural resource affecting multiple user constituencies. A.I.D. activities and portfolios at the bureau and mission levels cannot reasonably address one component such as irrigation without due consideration of the total water sector.

Consequently, one of the technical recommendations was to:

> Pursue a change from irrigation support to broader water resources and environmental support of Asia and Near East Mission projects.

Over the past several years, ISPAN has attempted to make this transition, although the name change recommended in the evaluation was not pursued. The evaluation team should review the specifics of this transition and review the implications of the broadening, in terms of competition with other centrally funded environmental or other projects which may have water components.

As of March 31, 1993, ISPAN reported that it is working on 49 continuing program activities and one new activity in 9 countries in the Near East and Asia. Additionally, a number of activities are regional or for the bureau.

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ARTICLE I -- THE PROJECT

Title: Irrigation Support Project for Asia and the Near East
Project Number: 398-0289
Contract Number: ANE-C-00-7044-00
LOP Funding: $ 26 million
Core Funding: $ 9.6 million
Buy-in Funding: $ 16.4 million
PACD: June 30, 1994

The project has four components:

- Technical Assistance. Service to Missions was intended to be the core of the ISPAN project. It was envisioned that teams of mixed-discipline specialists would respond to requests from Missions and host country governments and would provide assistance at any point in the project cycle, including sector reviews, identification of projects, project paper development, etc..

- Training and Technology Transfer was to include such activities as formal short courses, seminars, workshops, study tours, field exercises, newsletters, networks, etc.. Through working with key regional institutions, the project was to institutionalize the training capacity within the region.

- Applied studies were to be carried out as a direct service to Missions and host governments and to address broader regional and future-oriented goals.

- Regional Institutions. Three or four regional institutions were to have been selected to work with the primary contractor and provide services under the project.

ARTICLE II -- OBJECTIVE

The contractor shall provide a team which shall <u>evaluate</u> the above project including the following:

- Determine the extent to which the project has met its objectives.

- Assess the continuing validity and relevance of ISPAN to A.I.D. as a whole and to the Near East Bureau specifically under current A.I.D. policies and strategies.

- Assess the effects of external and unanticipated actions and events on the overall project.

- Assess the extent to which the contractor has been able to fulfill the scope of work under the contract.

- Examine various alternatives which would meet the Agency needs, and specifically those of the Near East Bureau, in water resources over the next five to seven year period.

ARTICLE III -- STATEMENT OF WORK

I. Evaluation. The following evaluation components shall be considered and addressed in the team's report. The discussion of each component is to be concise, yet is to identify important factors affecting implementation, and place them in the context of achieving the project purpose. Recommendations shall be based on specific information or examples, and be directed to increasing the chances of success of future activities or projects.

A. The contractor will determine the degree of success the project had in reaching its stated objectives and the utility of the project to Missions and AID/W Bureaus.

There are three main areas of concern: the extent to which the project has successfully met the objectives as laid out in the Project Paper and as subsequently amended (whether informally or formally); the usefulness of the project in meeting the needs of Missions and Bureaus in water resources; and the adequacy and effectiveness of project management and project design.

1) Evaluate the project to determine the extent to which it has successfully completed the objectives set forth when the project began and as subsequently amended.

2) Assess the adequacy and effectiveness of the project in meeting the needs of Missions and Bureaus. The following should be addressed:

- Has the project effectively met the needs of Missions through the buy-in mechanism?

- What has been the typical mode of generating buy-ins? Have these been instigated by Missions, Bureaus or the project itself? Has the project adopted a proactive approach in generating interest among client missions in new approaches, technologies, etc. which have resulted in buy-ins?

- Has the project generated new thinking among the Missions or Bureaus which has been incorporated in new assistance projects, etc.? Has the project been successful in leveraging assistance from other donors?

- Have the lessons learned and applied studies been effective means of synthesizing information and presenting it in a form which is useful to mission staff or other users?

3) Assess the adequacy and effectiveness of project management and project design:

- How effective has the Technical Support Center (TSC) been in meeting Mission and Bureau needs? Does A.I.D. "get its moneys worth" in maintaining a core group like this? Are there alternative means of managing a support project such as this?

- ISPAN has provided services for several very large and relatively long-term buy-ins. Are these appropriate for a centrally funded project? How do long-term buy-ins affect "normal" buy-ins (if at all)?

- Was the concept of support to regional institutions ever seriously addressed? Was it appropriate to a centrally funded project?

- A.I.D. management staff and approach has varied considerably over the life of the project. Staff have changed, Bureaus have reorganized, policy directions have changed, etc.. How has this affected the project and how has the project performed with these variations in oversight and direction? Have limitations on the flow of financial resources affected the project?

- ISPAN resources have recently been heavily utilized to support the Middle East peace process, they have also been heavily used for other Bureau activities such as preparing bureau strategy documents. The Project Paper did not foresee this role of ISPAN as a support project for Bureau initiatives. How has this affected the performance of the project as viewed from central or Mission perspectives?

- Has an appropriate financial system been put in place to account for core funded and buy-in activities? Has this system been responsive to the needs of missions?

B. Determine the anticipated requirements for a follow-on water resources support activity for the NE Bureau.

- Given the trends of A.I.D. funding and staffing, does the concept of regional or centrally funded projects make sense? What are the advantages/disadvantages of a regional versus a centrally funded project? What kinds of services can a regional/centrally funded project provide well, or not provide well? Can a regional/centrally funded project fill gaps in A.I.D.'s technical staff?

- Other regional/centrally funded projects deal in areas related to water such as environment, agriculture, health, policy, etc.. Is water resources important enough to the Near East Bureau to warrant a specific stand alone project? Support the conclusion with specifics from the field and develop a rationale for the concept.

- What are the expected requirements for water resources services in the Near East region over the next five to seven years? What types of projects are expected? Is there a need for a regional or centrally funded support project for water resources?

- What are the alternatives to a regionally funded project? Could the expected services be provided through an existing project or one which is currently planned? Could ISPAN be extended to meet expected demand?

II. **Process.** The evaluation team will follow the format and guidelines established by A.I.D. in the supplement to Chapter 12, A.I.D. Handbook 3, entitled "A.I.D. Program Design and Evaluation Methodology Report No. 7". The team will use the following data collection and interview methods:

1) Review the relevant project papers and contracts, progress reports, and previous evaluation reports.

2) Conduct interviews and discussions with field staff to maximize their input into the evaluation process. Due to limitations of funds, travel will be restricted to two countries in the Near East. Communication with other missions through telephone, fax, E-mail, etc. are encouraged.

3) Meet with other relevant officials including A.I.D. Washington and project staff.

ARTICLE IV -- REPORTS

The evaluation team shall submit to USAID/NE/DR/PI various documents both in paper form and on 3 1/2 inch diskettes. All documents shall be completed using Word Perfect 5.1, Lotus 123, or DBase III+ (or another software package upon the prior approval of NE/DR/PI). The evaluation team shall submit the following as deliverables:

A) Work Plan: Within five working days of the commencement of this evaluation the team shall submit to NE/DR/PI five copies of a work plan, including a schedule of activities (who, what and when) and due dates for each of the deliverables listed in this section for NE/DR/PI approval.

B) Field Briefings: At the conclusion of each field visit the team will brief appropriate A.I.D. personnel on the results of the visit.

C) Draft Final Report: Within two weeks of returning to the U.S. the team shall submit to NE/DR/PI five copies of a preliminary draft of the final report for Bureau review and discussion.

D. Oral Briefing: Within one week of presenting the draft final report the team shall present an oral briefing of their findings, conclusions and recommendations to Near East and Asia Bureau staff for discussion and review.

E. Final Report: Within two weeks of receiving written comments on the draft final report the team shall submit thirty (30) bound copies and one unbound copy of its final report to NE/DR. The format of the report will follow A.I.D. guidelines established in "the Supplement of Chapter 12 of A.I.D. Handbook 3". The final report shall consist of:

1. A short (3-5 page) executive summary that includes major findings, conclusions and recommendations.

2. Project Identification Data Sheet.

3. The main body of the report, including background materials, description of major activities, findings, conclusions and recommendations. The body of the text, exclusive of the executive summary and annexes, should not exceed 30 single-spaced pages.

4. Any annexes that may support the conclusions and recommendations. The report will include an analysis of the state of knowledge of treatment of wastewater for reuse as irrigation water for agriculture and/or aquaculture in villages in Egypt.

The report will be written jointly by the evaluation team under the coordination of the team leader, who will be responsible for debriefing appropriate A.I.D. staff.

The final evaluation report will be completed by the team leader in the contractor's office prior to the end of the contract period or at a reasonable later date agreed upon with the contractor, but in no case later than 30 days after completion of the evaluation.

ARTICLE V -- RELATIONSHIPS AND RESPONSIBILITIES

The team will work under the technical directions of Mr. Herbert Blank, NE/DR/PI, of the Near East Bureau of A.I.D..

ARTICLE VI -- PERFORMANCE PERIOD

The evaluation and analysis will begin in September, 1993. The approximate schedule for the work is as follows:

Days 1-10	Travel to Washington, D.C., review documents, briefings with appropriate A.I.D./W project management staff, ISPAN project staff, users, communication with field staff, etc..
Days 11-18	Travel to Cairo, Egypt, meet with USAID staff, host government officials and cooperating staff.
Days 19-22	Travel to Amman, Jordan, meet with USAID staff, host government officials and cooperating staff.
Days 23-27	Travel to Dhaka, Bangladesh, meet with USAID staff, host government officials and cooperating staff.

Days 28-40 Travel to Washington, D.C., meet with ISPAN project management staff, other staff members from the Asia and Near East Bureaus, communications with field staff, complete the evaluation and write the report. Submit draft report. Conduct oral briefing.

ANNEX B

EVALUATION TEAM ITINERARY

EVALUATION TEAM ITINERARY

9/1/93	Arrive in Washington, D.C.
9/2/93	Initial evaluation briefing at AID/Near East Bureau and discussions at ISPAN.
9/3/93	Discussions at AID/Asia and Research and Development Bureau and at ISPAN.
9/4/93	Review of ISPAN reports and other documents.
9/6/93	Review of ISPAN report and other documents and development of questionnaire for transmission to USAID Missions in the Asia and the Near East.
9/7/93	Interviews with AID officials and other participants in ISPAN activities.
9/8/93	Interviews with AID officials and other participants in ISPAN activities and evaluation team departs for Cairo, Egypt.
9/9/93	Evaluation team arrives in Cairo, Egypt.
9/15/93	Evaluation team departs Cairo, Egypt and travels to Amman, Jordan.
9/19/93	Evaluation team departs Amman, Jordan for Dhaka, Bangladesh.
9/20/93	Evaluation team arrives in Dhaka, Bangladesh.
9/23/93	Evaluation team departs Dhaka, Bangladesh.
9/24/93	Evaluation team arrives in Washington, D.C..
10/6/93	Evaluation team presents draft report and debriefs with AID officials.
10/7/93	Evaluation team departs Washington, D.C..

ANNEX C

LIST OF PERSONS CONTACTED BY THE EVALUATION TEAM

ANNEX C

LIST OF PERSONS CONTACTED BY THE EVALUATION TEAM

I. Agency for International Development/Washington

H.G. Blank	NE/DR/PI
M.L. Winter	NE/DR
K.A. Prussner	NE/DR
G.S. Jackson	NE/DR
K-A. Jones	ASIA/DR/TR
M.B. Kux	ASIA/DR/TR
T.J. Miller	ASIA/DR/TR
G.T. Atwood	ASIA/DR/TR
A.R. Hurdus	R&D/AGR
T.S. Gill	R&D/AGR/RNR
D.J. Deely	R&D/ENR
M. Salazar	R&D/ENR

II. USAID Missions

D.J. Clark	ADO/USAID/Egypt
C.J. Weber	AGR/ILD/USAID/Egypt
R.B. Backus	AGR/ILD/USAID/Egypt
D. Smith	AGR/ILD/USAID/Egypt
C. Houston	AGR/ILD/USAID/Egypt
J. Anania	AGR/ILD/USAID/Egypt
R. Ehrich	WEA/USAID/Egypt
C.A. Dutto	WEA/USAID/Jordan
A.A. Ahmad	WEA/USAID/Jordan
M.A. Azar	WEA/USAID/Jordan
R. Brown	Mission Director, USAID/Bangladesh
F. Young	Deputy Mission Director, USAID/Bangladesh
K.J. Mullally	Director, Office of Food and Agriculture, USAID/Bangladesh
H.K. Gunther	Deputy Director, Office of Food and Agriculture, USAID/ Bangladesh
D.A. Atwood	Chief, Agriculture and Food Policy Division, Office of Food and Agriculture, USAID/Bangladesh
D.C. Anderson	ISPAN Project Officer, Office of Food and Agriculture, USAID/ Bangladesh
P. Chaudhury	Program Specialist, Office of Food and Agriculture, USAID/ Bangladesh

III. ISPAN Project Staff, Contractor and Sub-Contractors Representatives

R. Thomas	Project Director, ISPAN Technical Support Center
P. Reiss	Technical Director,ISPAN Technical Support Center
K. Alison	Human Resources/Training Specialist, ISPAN Technical Support Center
S. Fisceri	Office Manager, ISPAN Technical Support Center
J. Kaleh	Travel Officer, ISPAN Technical Support Center
M. Blackmon	Computer Specialist, CDM
K. Pittman	Project Manager, ISPAN/Bangladesh
T. Martin	Team Leader for Geographic Information System Component [GIS], ISPAN/Bangladesh
Ahmadul Hassan	Technical Coordinator for FAP-19 Component, ISPAN/ Bangladesh
D. Savory	Image Processing Specialist for GIS, ISPAN/Bangladesh
Iffat Haque	Image Processing Specialist, ISPAN/Bangladesh
Chapal Choudhury	GIS Analyst, ISPAN/Bangladesh
Syed Iqbal Khoru	GIS Specialist, ISPAN/Bangladesh
Pia Afrina	Senior Scientist, ISPAN/Bangladesh
Sharmanddi Ahmed	GIS Specialist, ISPAN/Bangladesh
Aneeqa Shipeen Syed	Junior Scientist, ISPAN/Bangladesh
M. Pooley	Consultant, ISPAN/Bangladesh
M. Walter	Department of Agricultural Engineering, Cornell University, Ithaca, New York
W. Gormley	Training Resources Group, Alexandria, Virginia
B. Rassas	International Science and Technology Institute, Washington, D.C.
M. Ouereshi	Harza Engineering Corporation, Chicago, Illinois
C. Oot	CDM International, Cambridge, Massachusetts
D. Slack	Department of Agricultural and Biological Engineering, University of Arizona, Tucson, Arizona
M. McGovern	Development Alternatives, Inc., Bethesda, Maryland

IV. International Donor Agencies

G. LeMoigne	Senior Advisor/Water Resources, World Bank, Washington, D.C.
N. Katz	World Bank
J. Hayward	World Bank
T. Garvey	World Bank
N.S. Peabody III	World Bank
S.A. Rana	Head, Agriculture Unit, World Bank, Dhaka, Bangladesh
R. Wallace	Resident Flood Plan Coordinator, World Bank, Dhaka, Bangladesh

V. Other Informants

D. Seckler	Winrock International, Rosslyn, Virginia
E.D. Stains	Potential Unlimited, Inc., Alexandria, Virginia
F.L. Hanigan	Vice President/Geonex International Operations, Inc. and Team Leader, Egyptian Survey Authority Project, Cairo, Egypt
R.E. Dixon	Morrison-Knudsen Engineers, Inc. Team Leader for the Preventive Maintenance/Channel Maintenance Component of the Irrigation Management Systems Project, Cairo, Egypt
Y.M. Youssef Eid	Deputy Manager, Preventive Maintenance/Channel Maintenance Component of the Irrigation Management Systems Project, Cairo, Egypt
R.W. Smail	Sheladia Associates, Inc. Chief of Party, Professional Development Component of the Irrigation Management Systems Project, Cairo, Egypt
Bayoumi Attia	Project Director for the Planning, Studies and Models Component of the Irrigation Management Systems Project/Ministry of Public Works, Cairo, Egypt
L. Busch	Chief of Party for the Planning, Studies and Models Component of the Irrigation Management Systems Project/Ministry of Public Works, Cairo, Egypt
El Assiouty	Professor of Hydraulic Engineering, University of Cairo, Cairo, Egypt
C. Hackbart	Chief of Party, Irrigation Improvement Component of the Irrigation Management Systems Project, Cairo, Egypt
M. Lowdermilk	Irrigation Improvement Component of the Irrigation Management Systems Project, Cairo, Egypt
S.M. Abou-Zeid	Project Director for the Main Systems Management Component of the Irrigation Management Systems Project, Cairo, Egypt
A. Tczap	Chief of Party for the Main Systems Management Component of the Irrigation Management Systems Project, Cairo, Egypt
S.H. Fahmy	Project Director for IMS Monitoring Office, Ministry of Public Works, Cairo, Eqypt
E.J. Loomis	Institutional Advisor, National Agricultural Development Project, USAID/Jordan
F.R. Qushair	Program Advisor, National Agricultural Development Project, USAID/Jordan
M.R. Shatanawi	Director of the Water and Environment Resesearch and Study Center, University of Jordan
I.O. Ghawi	Director of ISPAN Study, Faculty of Agriculture, University of Jordan
M. Samir El Habbab	Agroeconomist, University of Jordan

M. Fayyad	Water Quality Specialist, Water and Environment Research and Study Center, University of Jordan
M. Dabbas	Soil Scientist, Ministry of Agriculture, Amman, Jordan and Field Scientist for the ISPAN Study
Masroor-ul Haq Siddigl	Chief Engineer, Flood Plan Coordination Organization, Ministry of Irrigation, Water Development and Flood Control, Dhaka, Bangladesh
A.M. Shafi	Superintending Engineer, Flood Plan Coordination Organization, Ministry of Irrigation, Water Development and Flood Control, Dhaka, Bangladesh

VI. ISPAN Evaluation Questionnaire Recipients

R.H. Goldman	USAID/India
D.R. Aurora	USAID/India
G.E. Anders	USAID/Sri Lanka
J.A. Grayzel	USAID/Philippines
C.M. Uphaus	USAID/Morocco
J.H. Mullenax	USAID/Morocco
R.A. Bloom	USAID/Nepal
J.L. Gingerich	USAID/Nepal
J.A. Graham	USAID/Tunisia
B.H. Hill	USAID/Tunisia
R. Nishihara	USAID/Indonesia
J.B. Swanson	USAID/Pakistan
P.H. Deinken	USAID/Thailand
R. Klees	USAID/Thailand
D.J. Clark	USAID/Egypt
C.J. Weber	USAID/Egypt
C. Dutto	USAID/Jordan
F.R. Qushair	USAID/Jordan
E.J. Loomis	USAID/Jordan
R. Brown	USAID/Bangladesh
F. Young	USAID/Bangladesh
K.J. Mullally	USAID/Bangladesh
H.K. Gunther	USAID/Bangladesh
D.G. Andersen	USAID/Bangladesh

ANNEX D

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REPORT BIBLIOGRAPHY

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ANNEX E
SUMMARY OF ISPAN ACTIVITIES

SUMMARY OF ISPAN ACTIVITIES

I. ISPAN ACTIVITIES CLOSED PRIOR TO 12 NOVEMBER 1991

Bureau:

Activity No. 611A — June 1988: Closed

Bureau: Team Planning Meeting: Training of Trainers for ANE Staff.

Activity No. 615A — June 1988: Closed

Bureau: ISPAN Annual Planning Workshop.

Activity No. 639B — October 1990: Closed

US: ISPAN Annual Report No. 1.

Activity No. 660B — May 1989: Closed

Bureau: ANE Irrigation Strategy.

Activity No. 679C — December 1989: Closed

Bureau: Occasional Paper on Start-up Workshops.

Activity No. 683C — January 1990: Closed

Bureau: International Drainage Workshop.

Activity No. 685C — January 1990: Closed

Bureau: System Turnover and Local Participation.

Activity No. 686C — January 1990: Closed

Bureau: Design for Performance.

Activity No. 687C — January 1990: Closed

Bureau: Farmers and Agencies, Lessons Learned.

Regional:

Activity No. 601A — November 1987: Closed

Regional: Workshop on Training Needs and Strategies for Integrated Agricultural Development.

Activity No. 609A — April 1988: Closed

Regional: Irrigation Management Workshop.

Activity No. 617A — June 1988: Closed

Regional: Regional Institutions Site Visits.

Activity No. 618A — June 1988: Closed

Regional: Preparation of a Monograph on Cost Recovery and Financing.

Activity No. 627A — June 1988: Closed

Regional: ANE Agriculture Sector Strategy for the 1990s.

Activity No. 635B — May 1989: Closed

Regional: Phase II: Training Needs and Strategies for Irrigated Agriculture.

Activity No. 644B — January 1989: Closed

Regional: Training Strategies Workshop.

Activity No. 651B — October 1990: Closed

Regional: Institutional Strengthening Regional Network.

Activity No. 653B — May 1989: Closed

Regional: Technology Transfer/Information Sharing.

Activity No. 666B — August 1989: Closed

Regional: Training Guidelines Report Translation.

Bangladesh:

Activity No. 629B — October 1988: Closed

Bangladesh: Review of the Water Sector and USAID's Program.

Egypt:

Activity No. 602A — December 1987: Closed

Egypt: Project Management System for Irrigation Management System Component Projects.

Activity No. 603A — December 1987: Closed

Egypt: Management Training Program.

Activity No. 608A — August 1988: Closed

Egypt: Assessment of Energy Issues in Egypt's Irrigation Sector.

Activity No. 636B — January 1989: Closed

Egypt: Professional Development Start-up Workshop.

Activity No. 637B — January 1989: Closed

Egypt: Regional Irrigation Improvement Project Start-up Workshop.

Activity No. 638B — January 1989: Closed

Egypt: Water Research Center Start-up Workshop.

Activity No. 640B — October 1990: Closed

Egypt: Irrigation Management Systems Project Evaluation.

Activity No. 655B — June 1989: Closed

Egypt: Planning Studies and Models Start-up Workshop.

Activity No. 656B — June 1989: Closed

Egypt: Preventive Maintenance Start-up Workshop.

Activity No. 658B — June 1989: Closed

Egypt: Main Systems Management Start-up Workshop.

Activity No. 659B — June 1989: Closed

Egypt: IMS Steering Committee Start-up Workshop.

Activity No. 676C — November 1989: Closed

Egypt: Scope of Work for the IMS Evaluation.

Activity No. 678C — November 1989: Closed

Egypt: Mobilizing Resources.

India:

Activity No. 610A — March 1988: Closed

India: Evaluation of the HALWD Project in Himachal Pradesh.

Activity No. 612A — July 1988: Closed

India: Development of ISPAN Program in India.

Activity No. 632B — November 1988: Closed

India: Strengthening the Strategic Analysis Unit.

Indonesia:

Activity No. 605A — January 1988: Closed

Indonesia: Small Scale Irrigation Management Project (SSIMP) Start-up Workshop.

Activity No. 606A — January 1988: Closed

Indonesia: Management Training Assessment of Small Scale Irrigation Management Project (SSIMP).

Morocco:

Activity No. 614A — June 1988: Closed

Morocco: Supplemental Irrigation Project Team Planning Meeting.

Philippines:

Activity No. 628B — August 1988: Closed

Philippines: AAP Applied Studies Design.

Activity No. 663B — September 1989: Closed

Philippines: Accelerated Agricultural Project.

Activity No. 682C — January 1990: Closed

Philippines: NIA Training Assessment.

Sri Lanka:

Activity No. 633B — November 1988: Closed

Sri Lanka: Institutional Support for Irrigation Management Policy Planning and Implementation.

Thailand:

Activity No. 641B — January 1990: Closed

Thailand: NESSI Applied Study.

Activity No. 668B — August 1989: Closed

Thailand: NESSI Closing Policy Workshop.

Tunisia:

Activity No. 607A — January 1988: Closed

Tunisia: Improved Water Resources Management Project Identification Document Preparation.

Activity No. 616A

June 1988: Closed

Tunisia: Special Studies SOWs for IWRM Project.

II. ACTIVITIES OPEN DURING THE PERIOD 12 NOVEMBER 1991 TO PRESENT

Bureau:

Activity No. 661B — **June 1989: Closed**

Bureau: Eastern Waters Study Follow-up. ISPAN contracted the services of Professor Peter Rogers to follow-up the Eastern Waters Study (EWS) in India at the request of USAID/New Delhi.

Activity No. 677C — **November 1989: Inactive**

Bureau: Improving Irrigation Scheduling. ISPAN is using core funding for a study of irrigation scheduling in Sri Lanka. The study is at a standstill because the study site is inaccessible due to hostilities in the area.

Activity No. 693C — **June 1990: Closed**

Bureau: Water Management Synthesis II Working Paper. The remaining funds from the S&T buy-in mentioned in 666B were used to commission the Consortium for International Development (CID) to prepare a paper entitled "Developing Irrigated Agriculture to Improve Performance". The objective of the report was to conceptualize and summarize the lessons learned about irrigation development from the Water Management Synthesis II (WMS II) Project experiences.

Activity No. 724D — **June 1993: Active**

Bureau: Water Resources Strategic Framework. For the Asia Bureau, ISPAN continued to supplement and make changes in the draft water strategic framework in response to Bureau reviews. This document was initially presented to the Bureau on 18 December 1992 but has undergone substantial change since then, mainly in the direction of emphasizing the need for support of good governance and appropriate policies, in addition to the technical and management support needs.

Activity No. 724F — **February 1991: Active**

Bureau: Water Resources Policy Strategy. Near East Bureau: A background report on water sector actions for the Near East Bureau had been prepared under Activity 724D. It identifies major issues, presents individual country profiles, and discusses options for the Bureau in the sector. Major issues in the region are water scarcity, water quality, and management. It has been finalized and was approved by the Bureau during the period. A companion action plan has been prepared by the Bureau. The two documents have been combined into a single document which was prepared for publication during the next reporting period. Funding of this activity is for final editing and publication of the document.

Activity No. 731D **August 1991: Closed**

Bureau: Middle Eastern Water Summit. The Near East Bureau initially asked ISPAN to assist in a regional water summit to be held in Istanbul. However, the summit was canceled soon afterwards.

Activity No. 733E **April 1992: Active**

Bureau: ISPAN Newsletter. The second issue of *WATER* was printed and mailed to over 500 individuals and organizations.

Activity No. 738D **July 1992: Active**

Bureau: Mideast Regional Water Schemes. During the prior period, ISPAN provided technical assistance on a second report for the Water Sharing Working Group of the Middle East Peace Talks.

Activity No. 739E **July 1992: Closed**

Bureau: Gulf of Aqaba Environmental Issues. In July 1992, the Near East Bureau of USAID and State Department requested ISPAN to assemble and categorize all known information on the marine ecosystems and coastal land use which affects the Gulf of Aqaba, identify the major activities of riparians and donors in the Gulf during the past 15 years and define the critical environmental issues in the Gulf. Visits to Egypt, Israel and Jordan were carried out during July and the report was compiled, edited and printed in September. The report, called the Gulf of Aqaba Environmental Data Survey, was distributed at the Environmental Working Group meeting in the Hague. The Environmental Working Group is one of five supporting the Middle East Peace Talks.

Activity No. 742E **September 1992: Active**

NE Bureau: Environmental and Natural Resources Workshop. The Near East Regional Environmental and Natural Resources workshop was held in Cairo, Egypt 28 February - 4 March 1993. The overall goals of the workshop were: to identify specific steps needed to strengthen the NE Bureau and Missions' respective capabilities to develop, manage and monitor environmental projects and programs in the region; to enhance communications, cooperation and understanding among and between environmental officers from Missions and the Bureau; and to provide Mission staff with the opportunity to interact with AID/W personnel and NE regionally funded project staff who support regional and mission environmental programs.

Participants included representatives from the Morocco, Tunisia, Egypt, Jordan and Oman Missions and NE Bureau and other Washington-based staff, plus members of the ISPAN and PRIDE teams and specialists involved in the environmental area. A workshop report is now in progress.

Activity No. 747F **November 1992: Active**

Bureau: Policy Lessons Learned. During the previous period, ISPAN had fielded a team of two consultants to prepare a lessons learned paper on policy formulation based on project experiences and consequences in Sri Lanka and Tunisia. The paper, which contrasts approaches for water policy development in the two countries, was largely completed during the period. It was reviewed by both the Asia and Near East Bureaus and by the Tunisia and Sri Lanka USAID Missions. Their comments have been incorporated into the report which will be published in the ISPAN applied study series during the next period. The report provides lessons learned from both policy efforts and identifies a number of characteristics of successful policy development activities. The authors of the report also gave a presentation to AID in June as part of ISPAN's monthly water seminar series, which is sponsored by the two bureaus.

Activity No. 748F **November 1992: Active**

Bureau: Environmental Sustainability of Water Resources Applied Study. Field work was conducted in Egypt, Morocco, Pakistan and Thailand for a study on sustainability of water resources and systems. In each country a "case" was selected for study consisting of a medium-sized city and its rural environs. Issues evaluated included water availability and distribution, water quality degradation, environmental health and water management. The selection of the cases ensured that any urban/rural conflict issues would be included. A draft country report was left with the mission in each case. Final country reports and the overall synthesis report are under preparation. The synthesis report is intended to give guidance to donor agencies on actions to take during project preparation to support sustainability.

Activity No. 749F **December 1992: Active**

Bureau: Water Resources Seminar Series for USAID. A monthly seminar series on *Water Resources* continued in this quarter. The series is sponsored by the Asia and Near East Bureaus, with the support of ISPAN. Four seminars were held during this quarter. In April, Dr. Robert Young, Colorado State University and Dr. Paul Riley, Utah State University presented the results of an ISPAN study on "Building a Consensus for a Water Cost Recovery Policy in Egypt" for 32 attendees. Two seminars were held in May. First, Dr. George Radosevich, professor of water law at Colorado State University discussed the Mekong Commission in a presentation entitled "Inside the Mekong River Commission: Dealing with Transboundary Water Issues" for 32 attendees. The second May seminar was a review of the World Bank's New Water Resources Management Strategy presented by Dr. K. William Easter, World Bank consultant and Gershon Feder, WB Agriculture Policy Division Chief for 30 attendees. The fourth seminar held during this quarter was entitled "Contrasting Approaches for Water Policy Development in Sri Lanka and Tunisia" presented by John Eriksen, consultant and Roger Poulin, consultant for 45 attendees. Additional seminars are currently planned through early 1994.

Activity No. 751F **December 1992: Finished**

Bureau: Near East Wastewater Treatment Workshop Scope of Work. The purpose of this activity is to write a scope of work for low cost techniques for water and wastewater treatment.

Activity No. 752F **January 1993: Active**

Bureau: ISPAN Publications Support. This activity was opened to capture costs associated with reprints of ISPAN publications under activities which have been closed, annual and quarterly reports, redesign of the ISPAN report cover.

Activity No. 754F **June 1993: Active**

Bureau: Assessment of Water Users Association Performance and Sustainability. The purpose of this activity is to conduct an applied study of water users association performance and sustainability in Asia and the Near East, focusing on system turnover and enhanced political participation (democratic initiatives). The study will begin in September 1993.

Activity No. 756F **June 1993: Active**

Bureau: Water Technologies Seminar. A consultant (Mark Svendsen of IFPRI) was provided to participate in the Vienna Seminar on Water Technologies in Arid and Semi-arid Areas with Special Reference to the Middle East Region, 7-9 June 1993. By agreement among the participants, there are no written proceedings of the seminar. The results will be presented orally in the Beijing meeting in the fall.

Activity No. 757F **June 1993: Active**

Bureau: NE Water Conservation Scope. For the Near East Bureau, outline terms of reference were prepared for a study related to the Middle East water peace talks. This study, to be overseen by the World Bank, is to be on water conservation in the West Bank and Gaza. Its purpose will be to identify economically feasible short- to medium-term measures to bridge the gaps between supply and demand through water loss reduction and demand management.

Bureau: Middle East Training Needs Assessment Scope. The Near East Bureau and Department of State requested ISPAN to revise a proposed terms of reference for a Middle East training needs assessment that had been initially prepared by the European Commission. The proposed objective of the needs assessment, tentatively scheduled for August/September, is to identify and prioritize water-related training needs for personnel from the Middle East working in the water sector.

Activity No. 758F — June 1993: Active

Bureau: Experts for Sri Lanka Water Resources Strategy and Action Plan. ISPAN has been asked by the Asia Bureau to provide water resources experts as part of the planning process leading to a comprehensive water resources strategy and action. The experts would assist an Asian Development Bank team working with the Government of Sri Lanka. The experts would provide in seminars and workshops their perspectives on water resources planning. A small number of U.S. and regionally-based experts is expected in September.

Activity No. 759F — July 1993: Active

Bureau: Support to Missions. The purpose of this activity is to provide technical assistance to Missions. Funds were transferred from 931F into this activity.

Activity No. 760F — August 1993: Active

Bureau: Middle East Training Needs Assessment. Scope of work is to design and implement a training needs assessment with the EC and the U.S. State Department in Jordan, the occupied territories, Israel and Egypt as part of the water working group of the Middle East Peace Talks.

Regional:

Activity No. 634B — November 1988: Closed

Regional: Eastern Waters Study. The Bureau for Asia and Near East commissioned ISPAN to review flooding and water management in the Ganges and Brahmaputra river basins, and to assess and compare various proposals which had been made for their improvement. The study examined political, economic, engineering, legal, environmental, and social aspects of improved resource management in the basins.

Activity No. 671B — September 1989: Closed

Regional: Irrigation & Drainage Research. At the request of the former S&T Bureau of USAID, ISPAN funded an applied study of US-based and US-supported research in irrigation and drainage. The report was reviewed, accepted by S&T, and has been distributed.

Activity No. 673B — October 1989: Closed

Regional: EWI Regional Research Coordination. This activity enabled ISPAN to follow-up some of the recommendations made in the EWS from October 1989 and develop ideas for EWI to implement these recommendations. The initial outline EWI program was substantially revised following by the US's buying into the donor funded Bangladesh Flood Action Plan coordinated by the World Bank in December 1989.

Activity No. 697C **August 1990: Closed**

Regional: EWI-I TSC Administrative Support. This activity enables ISPAN/TSC to provide administrative support to EWI Program Management (Activity 670B) under the first funding tranche of EWI, EWI-I. Support includes person-months for financial monitoring, subcontracting for consultants, secretarial, travel and visas and communications. This activity has been continuous and funding Tranche EWI I was fully utilized by November 1991, and the activity is being closed down.

Activity No. 698C **September 1990: Closed**

Regional: EWI-II TSC Administrative Support. Same as Activity 697C but for the second funding tranche of EWI, EWI-II, and these funds were utilized from November 1991 after the exhaustion of 697C funds.

Activity No. 699C **September 1990: Active**

Regional: EWI-III TSC Administrative Support. Same as Activity 697C but for the third funding tranche of EWI, EWI-III. Part of the funding for this activity was allocated from a Dhaka Mission buy-in to the GIS Phase II (see activity 709C) in September 1991.

Bangladesh:

Activity No. 647B **March 1989: Closed**

Bangladesh: Water Sector Assessment. ISPAN assisted USAID/Dhaka in the preparation of a water sector assessment in 1989.

Activities 670B, 672B, 674B, 675B, 735E, 736E

EWI: Program Management. Management of the EWI program continues to be provided from both Dhaka and the TSC. The TSC in Washington provides backstopping, financial information, recruitment, and liaison with AID/W, the World Bank, U.S. NGOs and long-term consultants working on EWI.

During the quarter, the Activity Manager spent two weeks in Washington briefing USAID, the World Bank, the EWI Advisory Group and ISPAN/TSC staff on the current status of EWI. He presented a briefing on the World Bank funded River Bank Protection Project for the Executive Director's assistant and other USG representatives from Treasury, State Department, EPA and AID at the World Bank.

During the remainder of the quarter, the Activity Manager was in Dhaka, overseeing EWI and working on a possible extension of the GIS and Environmental studies through May 1994.

Activity 684C **January 1990: Inactive**

EWI: Nepal. No activities.

Activities 701C, 702C, 711C

EWI: Advisory Group, International Meetings and Panel of Experts. (701C) In May, Peter Rogers travelled to Dhaka to participate in the 3rd Conference on the Flood Action Plan. In June, Peter Lydon travelled to Washington to meet with David Seckler, Keith Pitman and Kathy Alison to begin scoping the synthesis report that will be prepared by the Advisory Group this fall and winter.

(702C) Three Bangladesh staff from the Environmental study and GIS activity made official presentations at two international meetings during the quarter.

Ahmedul Hassan, member of the GIS study team and Dr. Aminul Islam, member of the Environmental study team, both participated in a conference on "Floods in Bangladesh: Alternative Solution Strategies", 3-4 April at the University of Illinois at Urbana-Champaign. The conference was sponsored by the National Science Foundation and conducted by the Bangladesh Environment and Flood Committee in America (BEFCA). Dr. Islam's paper was entitled "Flood Control and Environment: Experiences and Alternatives" and Mr. Hassan's paper was on "Information Technology for Informed Decisions in the Flood Action Plan."

Raguib Uddin Ahmed, wetlands specialist on the EWI Environmental study, participated in the 14th annual meeting of the Society for Wetland Scientists 30 May - 3 June in Edmonton, Alberta where he presented a paper on Wetland Conservation and Water Resource Development in Bangladesh. He also spent several days in Washington, briefing AID and World Bank staff.

(711C) Darrell Deppert, the U.S.-funded fisheries expert member of the expatriate Panel of Experts, also travelled to Dhaka to participate in the FAP conference. During his TDY, he continued his reviews of FAP documents and reports, as well as meetings with other members of the POE.

Activities 704C, 705C, 710C

EWI: Flood Response/Flood Proofing. These supporting studies were designed to provide background information for guidance of the FAP regional planning efforts. **(704C/705C)** Flood response was defined as anything people do to either prepare for, cope with or recover from floods. The study also sought opinions on some possible public intervention measures. The overall objective of the study was to identify effective measures to avoid or reduce the adverse human, infrastructural, and economic effects of flooding, particularly in unprotected areas. Recommendations were based on data on responses of sampled households, males and females, and whole communities to floods. The study covered a total of 51 villages. All reports are completed and have been submitted to the Flood Plan Coordination Organization (FPCO) for review.

(710C) The overall objective of the flood proofing study was to identify and implement effective flood proofing measures or measures that would avoid or reduce the adverse effects of flooding on the social and economic activities of communities and on infrastructure. Phase 1 consisted of a review of flood proofing measures that could be tested in pilot projects to be undertaken in Phase II. CARE expressed an interest in undertaking flood proofing activities as part of their new program starting in October 1993. A Flood Proofing Pilot Project has been prepared by the ISPAN team and CARE and submitted to USAID for funding under CARE's program for the next three years.

Activities 706C, 707C, 737E

EWI: Environment. The third and final EIA case study, centering on the coastal Bhelumia-Bheduria Project, was completed and the draft report submitted to FPCO for review. Work began on the final revisions to the EIA users' manual. Preparatory work began on a draft paper on institutionalization of EIA within the water resources sector.

The draft report on nutritional consequences of fish biodiversity was revised following review within the FAP. A previously drafted report on the kala-azar epidemic in Bangladesh and its relationship to flood control embankments was revised following expert review by the ICDDR,B epidemiologist. These reports complement previously completed environmental health subject reports on the relationship of disease vectors to flood control and a survey of the health and nutritional impacts of the Meghna-Dhonagoda project.

Mapping, database development and preliminary draft reporting were completed for the Jamuna River portion of the national charlands inventory and a draft report for submission is nearing completion. Field surveys were completed for the Meghna, Padma and Ganges river components of the inventory, and database development and initial draft reporting are in progress. A supplementary study of the socio-economic patterns of char communities was approximately three-quarters completed and was extended in scope to address clıar flood-proofing issues.

Nutrient analysis of soil samples, surface water and blue-green algae from the Chandpur Irrigation Project was completed and a draft report on the effects of flood protection on soil fertility was completed.

An EIA training team was established and began development of training modules for a series of EIA skills workshops for GOB personnel and local consultants. A series of executive seminars on environmental management and EIA was held for high ranking GOB personnel.

Activities 708C, 709C

EWI: Geographic Information System. Work continued on the collaborative work of FAP 16 and FAP 19 for the Jamuna Charland Inventory with revisions to some of the draft mapping and analysis. Digital mouza maps were developed for the Meghna Padma and Ganges Rivers with color copies made on 1993 geo-corrected satellite images. Maps were provided to field teams conducting the National Charland Inventory. Field verification for all rivers was

completed.

Under the new pilot project for application of radar image technology, meetings were held with officials of the Thailand National Research Center and the European Space Agency. A radar image for the Sylhet area was successfully transmitted and recorded at the Bangkok receiving station on 28 May. A ground truth program was conducted during the period 26-28 May in the Moulavibazar area with some 65 field test sites being recorded. Participating were staff from FAPs 17, 19 and 25. Because radar imagery penetrates cloud cover it is expected to be important in assessment of flood extent.

The technology applied under the Digital Elevation Modelling (DEM) Project has been transferred to FAP 25 (Flood Management Model) but work continued on FAP 19 for the purposes of data validation and comparison with land types derived from the earlier Land Resource Appraisal project funded by FAO. A detailed digital elevation model was also built for the Serajganj area at the request of FAP 20.

Preliminary analysis for the first phase of a pilot study for disaster management and relief was produced including base mapping and risk/vulnerability analysis for two Thanas in the Chittagong coastal district. A field visit was made jointly with CARE during April. The Regional CARE Office in Chittagong was very interested in the study and agreed to cooperate on a second field visit scheduled for July.

The soil information based on agro ecological zone units was completed for the National Database Project.

A GIS training program for managers was designed and planned for initial presentation as part of the EIA training course to be held during July.

FAP 19 expatriate inputs included Mike Pooley, a GIS specialist, providing technical assistance to the disaster management and other studies. David Savory joined the team in May with primary responsibility to work through to October on the Charland Inventory. Scott Bartling, a GIS specialist with previous experience on FAP 19 was recruited for a five-week input to develop analysis techniques for the disaster management pilot study. Michael Emch, a Fulbright scholar working in Bangladesh, was recruited for a four-month period to prepare GIS training material and present training courses for GIS managers and EIA trainees.

FAP 19 continued regular meetings with project leaders and team members for discussing issues and implementing GIS applications. Active discussions and provision of GIS products this quarter have included: FAPs 4, 16, 17, 20, 21/22, 25, CARE, Disaster Management Coordination Unit (now the Disaster Management Bureau) and the Surface Water Modelling Center.

A GIS User Group meeting was held at the Crop Diversification Project offices with support from FAP 19. Once again attendance was high at about 50 people. FAP 19 instigated the formation of two new working groups identified as important by the main GIS User Group. One

working group focusses on GIS database issues including standards, the other is addressing issues related to the use of Global Position Systems (GPS) with particular respect to GIS applications.

The FAP 19 Interim Report was accepted at a meeting of the FAP Review Committee held on 21 June.

Egypt:

Activity No. 657B — **June 1989: Closed**

Egypt: Survey and Mapping Start-up Workshop. As part of the start-up workshop series for sub-components of IMS, ISPAN facilitated both a team planning meeting and start-up workshop for the Survey and Mapping component of the IMS Project. The workshop was held in May 1990.

Activity No. 688C — **May 1990: Closed**

Egypt: Structural Replacement Review Workshop. Following the initial 8 start-up workshops requested by the USAID/Cairo ILD office and the Ministry, ISPAN designed and conducted a review workshop for the Structural Replacement sub-component of the IMS. The workshop was held in Cairo in 1990.

Activity No. 692C — **April 1990: Closed**

Egypt: Irrigation Management Systems Project Evaluation. In May and June 1990 ISPAN undertook a major project evaluation of the Irrigation Management Systems Project for USAID/Cairo.

Activity No. 714D — **November 1990: Closed**

Egypt: Project Planning and Implementation Workshop for the Irrigation Improvement Project. The Ministry and Mission requested ISPAN to facilitate a project planning and implementation workshop for the IIP component of the IMS project in Egypt in November 1990. Specific items on the agenda included integration of the new team leader and discussion of an approach for completing feasibility studies. A special session was held on cost recovery, a key element of the IIP. Fifty two key individuals from the Ministry, contract team and USAID participated in the November 1990 workshop in Alexandria, Egypt. The workshop report was completed and distributed in March 1991.

Activity No. 715D — **January 1991: Closed**

Egypt: Main Systems Management Monitoring and Review Workshop. In 1991, ISPAN planned a series of monitoring and review workshops for the Ministry of Public Works and Water Resources.

Activity No. 716D — **January 1991: Closed**

Egypt: Planning Studies and Models Monitoring and Review Workshop. ISPAN conducted this workshop in Alexandria in 1991.

Activity No. 718D — **January 1991: Closed**

Egypt: Training of Trainers Workshop. Two ISPAN trainers conducted a five day training of trainers in 1991.

Activity No. 719D — **January 1991: Closed**

Egypt: Water Research Center Monitoring and Review Workshop. ISPAN trainers conducted this three day workshop in Port Said in 1991.

Activity No. 726D — **June 1991: Finished**

Egypt: Cost Recovery Study No. 1 - Irrigation System Costs. ISPAN conducted an applied study for USAID/Cairo and the Ministry of Public Works and Water Resources.

Activity No. 734E — **June 1992: Active**

Egypt: IMS Review Workshop. USAID/Cairo requested that ISPAN design and implement a review workshop with the Steering Committee of the Irrigation Management Systems (IMS) Project which was originally scheduled for September 1992. ISPAN has previously conducted ten start-up workshops and review workshops for most of the components of the umbrella IMS Project. In September, the Mission, at the request of the Ministry of Irrigation, Public Works and Water Resources, postponed the workshop until April 1993.

The workshop was held in Port Said 1-4 April for thirty-two senior government and USAID staff. This workshop provided an opportunity for the group to discuss critical issues of sustainability and cooperation and coordination of the various IMS components and agree on necessary steps needed to ensure this coordination and sustainability are planned for prior to PACD in September 1995.

Activity No. 755F — **May 1993: Active**

Egypt: IMS/IIP Evaluation Preparation. At the request of USAID/Cairo, ISPAN prepared a proposal for conducting this final evaluation. The proposal was sent to the Mission for consideration. This activity is the first time ISPAN has been required to compete for an assignment. (It was unsuccessful.)

India:

Activity No. 619A — July 1988: Closed

India: Madhya Pradesh Minor Irrigation Project - Task 1. During the period, ISPAN completed providing technical assistance to USAID/New Delhi to the Government of Madhya Pradesh. Technical assistance has been given in the design and installation of a minor canal system. The assistance was provided over a three year period, with a number of visits to India scheduled for the consultant, John Merriam.

Activity No. 620A — July 1988: Closed

India: Madhya Pradesh Minor Irrigation Project - Task 2. USAID/New Delhi requested ISPAN to provide technical assistance in the design of farmer organizations to improve their participation in the operation of the irrigation system. Working with Department of Irrigation engineers, an institutional specialist, Ted Ehera, made a number of visits to the project site over a three year period. Through the assignment there was training for department staff in institutional development, the creation of an irrigation association based on traditional organizational patterns, and training for farmers.

Activity No. 621A — October 1988: Closed

India: Introduction of Microcomputers into the Madhya Pradesh Department of Irrigation. This was Task 3 of ISPAN's technical assistance program to strengthen the Madhya Pradesh Irrigation Department (GOMP/ID), financed through a buy-in from USAID/New Delhi under the Madhya Pradesh Minor Irrigation Project.

Activity No. 622A — January 1988: Closed

India: Strengthening the GOMP/ID Bureau of Designs for Hydropower and Irrigation Projects (BODHI). This was Task 4 of ISPAN's technical assistance program to strengthen the GOMP/ID, financed through a buy-in from USAID/New Delhi under the Madhya Pradesh Minor Irrigation Project.

Activity No. 623A — July 1988: Closed

India: Assistance in Manpower Assessment and Induction Training to the Madhya Pradesh Irrigation Department. Funding from this activity was used to cover to Activity No. 665B. The remainder was deobligated.

Activity No. 625A — August 1988: Closed

India: Evaluation of the Water Resource Management and Training Project. ISPAN had provided a two-person team to carry out a mid-project evaluation of the Water Resource Management and Training (WRM&T) project through a buy-in from USAID/New Delhi.

Activity No. 626A — **July 1988: Closed**

India: Water Management Technology and Research Specialist. ISPAN provided a Water Management Research Advisor to the Office of Irrigation and Water Resources in USAID/New Delhi for one year.

Activity No. 631B — **February 1989: Closed**

India: Development of Computerized Data Library and Processing Centers. This activity provided assistance to the Government of Maharashtra Irrigation Department to develop computerized data bases.

Activity No. 645B — **February 1989: Closed**

India: Dam Safety Conference. ISPAN assisted USAID/New Delhi in 1989 by providing technical assistance participation in a dam safety conference.

Activity No. 648B — **May 1989: Closed**

India: Maharashtra Minor Irrigation Project - Modeling. ISPAN assisted the Maharashtra Department of Irrigation in a multiphased activity including additional applications of the Minor Irrigation Management Information System (MI-MIS) which had been established under Activity 631B. The work was finished in 1991.

Activity No. 649B — **May 1989: Closed**

India: Maharashtra Minor Irrigation Project - Scheduling. ISPAN supplied the technical services of Elvert Oest to assist USAID/New Delhi in the design and implementation of infrastructure improvements tied to the Maharashtra Minor Irrigation Project. The work was completed in early 1992.

Activity No. 662B — **September 1989: Closed**

India: Cost Recovery Workshop. At the request of USAID/New Delhi, ISPAN designed cost recovery workshops for the Government of India and USAID on Recurrent Cost Financing for Sustainable Irrigation and Strategies for Cost-Effective Irrigation Operation and Maintenance. The workshops were not funded.

Activity No. 665B — **July 1990: Closed**

India: Madhya Pradesh Midterm Evaluation. ISPAN conducted a midterm evaluation of the Madhya Pradesh Minor Irrigation Project in March 1990. The team included Don Slack (team leader), John Eriksen, and Milton Barnett. The final report has been sent to USAID/New Delhi.

Activity No. 713C **September 1990: Canceled**

India: Flood Studies. The program manager visited New Delhi in the spring of 1990, and several very ambitious flood warning system proposals were put forward by the Government of India (GOI). No further progress has been made on these particular proposals.

ISPAN initiated a study proposal in the second quarter to synthesize the results of earlier and ongoing flood response and proofing studies conducted by the Centre for Water Research, College of Engineering, Patna, Bihar funded by USAID/New Delhi, ODA, IIMI, and the Ford Foundation. The intention was to compare and contrast the differing experiences in Bihar (on the Gandak river which is almost fully embanked) and Bangladesh. The study proposal was turned down by USAID/New Delhi in the third quarter as they moved out of all water sector activities during the current year. In consequence, the Bureau deobligated the money from India and reobligated it to the ISPAN/EWI Bangladesh program.

Activity No. 732E **January 1992: Closed**

India: Final Evaluation of the Water Resources Management and Training Project. From January through mid-March 1992, ISPAN fielded a four person team for the evaluation of WRM&T. The team examined the institutional capacity developed under the project at the state and national levels, the development of staff capabilities, assessed the adaptive research program and systems of technology transfer, the relevancy of the technical assistance, and the net impact of the project. The report was approved and distributed in May 1992.

Activity No. 743E **October 1992: Active**

India: Water Management Support Program - Activity Planning and Management. During the period, the ISPAN Technical Director and activity manager spent three weeks in India reviewing program progress. The in-country ISPAN program coordinator and program manager joined him at the second TAC meeting. The ISPAN Delhi office is in full operation now with long-term staff provided through Consulting Engineering Services, Ltd.

Activity No. 744E **December 1992: Active**

India: Water Management Support Program - Science and Technology Exchanges. Activities in the component focused largely on conducting study tours in the U.S. for senior government officers and training officers from CTU , both on river basin planning and management. Six senior officers visited a number of institutions in the U.S. during their two weeks. Short-term consultants went to India for several S&T studies: Real Time Operation of Reservoirs and Geographical Information Systems. In May, Tim Martin, team leader on the GIS study in ISPAN's Eastern Waters Initiative, spent nearly a week in Delhi reviewing the proposed GIS program and equipment needs in the Remote Sensing Directorate. In June, Victor Baker of the University of Arizona and V. Kale of the University of Pune visited the National Institute of Hydrology at Roorkee to advise on the completion of a multi-agency demonstration project on the paleo flood hydrology of the Narmada River. In addition, George McMahon of

CDM/Atlanta spent time in the U.S. refining the HEC-5 model for reservoir operation, modifying the software as requested by CWC. He will make a two week visit to India in July, once he completes the changes.

Activity No. 745E **December 1992: Active**

India: Water Management Support Program - Promoting Farmer Organizations.

Visits by program management continued to the participating institutions during the period. All but four of the 13 states have been visited thus far. The program directors were joined by the ISPAN Technical Director at a one day workshop in May on farmer organizations, organized under the program. They were joined by Andy Manzardo who presented an assessment of water users associations efforts in India. The assessment report is mentioned in the program's scope of work as a requirement. They also visited prospective institutions in Kerala and discussed the program with government officers and visited field sites in Himachal Pradesh. The sites had been supported under the USAID Hill Areas Development Project as part of the Mission's portfolio in the water sector.

In a major management advance, the Joint Project Management Committee, which includes USAID, CWC, and ISPAN, agreed to a proposal by the latter covering local and expatriate technical assistance for the FO and OPC components under 745E and 746E. All of the participating states will be divided into four clusters, each of which has one or more institutions which will be the focus of action research efforts. The other states will receive significantly less support, largely for workshops or very restricted research efforts. Each cluster will have two locally hired consultants, one focusing on FO, the other on OPC. These eight consultants will be supported by two expatriate consultants, one an expert on farmer organizations, the other on irrigation line agencies. Both must deal with policy and operational issues. A team planning/program start-up meeting is being planned for August.

Activity No. 746E **December 1992: Active**

India: Water Management Support Program - Improving Irrigation Bureaucracies. In-country and U.S. program management participated in a one day workshop on operational and procedural changes in May. See 745E also for further discussion.

Indonesia:

Activity No. 652B **June 1989: Closed**

Indonesia: SSIMP Mid-term Evaluation. ISPAN provided a team for the mid-term evaluation in July and August 1989.

Activity No. 654B **May 1989: Closed**

Indonesia: Sederhana HPSIS System. Under this activity, ISPAN conducted a long-term applied study, funded by USAID/Jakarta on "Privatization and Sustainability of Small-Scale Irrigation: A Reassessment of Sederhana and HPSIS Systems". This examined a decade of USAID technical and financial support for small-scale irrigation development throughout Indonesia. The field work was done in 1989. The final report was submitted in September 1991.

Activity No. 669B **March 1990: Finished**

Indonesia: Sederhana Applied Study Local Staffing. This activity provides additional Mission funding for the Privatization and Sustainability applied study. The funding largely covers the services of Pusat Pengembangan Agribisnis, a subcontracted firm in Jakarta. The report was completed and distributed during the period.

Activity No. 680C **February 1990: Closed**

Indonesia: SSIMP Mid-Term Review Workshop. ISPAN conducted a midterm review workshop in 1990.

Activity No. 695C **August 1990: Active**

Indonesia: National Pump Irrigation Policy. USAID provided funding to ISPAN to conduct a long-term applied study of pump irrigation throughout Indonesia. The study was conducted in partnership with the Ford Foundation which is funding a local consulting group. The report entitled, Policy Alternatives for Pump Irrigation in Indonesia examined eight policy areas: pump irrigation potential, environmental concerns, roles of the public and private sectors, institutional options for pump irrigation development, appropriateness of technologies, economic viability of pump irrigation, legal framework and institutional support, and strengthening the capacity of water users associations. The ISPAN team included Sam Johnson as team leader, Peter Reiss, Keith Pitman and Dr. Suprodjo from Gadja Mada University. The report has been published and distributed.

Jordan:

Activity No. 753F **April 1993: Active**

Jordan: Jordan Valley Baseline Survey. The survey of water practices and water quality in the Jordan Valley was finally launched during the period following a lengthy wait for Contracts Office approval. The survey initiation included a team planning meeting in the ISPAN TSC office with the two expatriate consultants, an irrigation engineer and agricultural economist, prior to their three week trip to the field. The University of Jordan, serving as a subcontractor, is providing the bulk of technical assistance. The entire team working in Jordan had a planning meeting, made a number of visits to the valley, and prepared survey guidelines and instruments.

The survey was been divided into six major components: on-farm water use efficiency, irrigation diagnostic, economics of agricultural production, agricultural economics diagnostic survey, water quality, and conveyance system. An interim report was prepared by the team and submitted to the Mission for review. The report also includes a timeline.

Morocco:

Activity No. 613A — **June 1988: Closed**

Morocco: Supplemental Irrigation Project Paper Design. ISPAN fielded a joint American-Moroccan team to design a supplemental irrigation project. Moroccan team members were provided through the Institute of Agronomy and Veterinary Science Hassan II, which has since been selected to be an ISPAN Regional Institution. The project financed the construction a number of small, multi-purpose dams for soil and water conservation and supplemental irrigation water and provided technical assistance to assist in reducing unit costs of construction and in developing farmer-user groups for maintenance of the completed works. The Project Paper was approved by AID.

Activity No. 696C — **July 1990: Closed**

Morocco: Water Policy Studies. In November and December 1990, ISPAN designed a proposal for a soil and water conservation project for USAID/Rabat in Morocco's second largest basin. See ISPAN Report No. 36. This activity should be closed.

Activity No. 727D — **July 1991: Closed**

Morocco: Water and Soil Conservation Project Paper Design. ISPAN fielded a large team in September and October 1991 to prepare the technical annexes to a project paper for USAID/Rabat. The assignment followed an earlier effort by ISPAN during the previous period which was a pre-proposal design for both upstream and downstream components. The team in the second assignment was asked to limit its work to the downstream component, particularly water use efficiency in the context of a national disengagement policy in which the Government of Morocco is abrogating regulations on agricultural production. This new project builds upon that policy and upon other USAID efforts, such as the Mission's Agribusiness Project. The report has been approved by the Mission and the GOM and was distributed in February 1992.

Nepal:

Activity No. 646B — **February 1989: Closed**

Nepal: Irrigation Management Project Mid-Term Evaluation. An ISPAN team evaluated the Irrigation Management Project for USAID/Kathmandu in March 1989.

Activity No. 664B **August 1989: Closed**

Nepal: Irrigation Management Project Redesign. ISPAN prepared a re-design of the Irrigation Management Project in September/October 1989.

Oman:

Activity No. 728D **June 1991: Closed**

Oman: Water Laboratory Technical Assistance Project. ISPAN is supplying technical assistance to the Ministry of Water Resources in the Sultanate of Oman to design and equip a modern, high capacity water quality laboratory in Muscat. This is part of a national water resources inventory and assessment which will be the basis for future planning and management. Donald Muldoon, Laboratory Manager from CDM, has reviewed laboratory layouts and advised the architect on technical requirements. Under his direction, CDM has prepared draft specifications for the major laboratory equipment, much of which will be automated. Assistance will continue in equipment procurement and in its installation and the training of laboratory staff.

Pakistan:

Activity No. 604A **January 1988: Closed**

Pakistan: Evaluation of the Institutional Strengthening and Rehabilitation Components of the ISM Project. ISPAN was requested to field a six-person team to carry out an evaluation of the institutional strengthening and rehabilitation components of the ISM project through a buy-in from USAID/Islamabad. The purpose of the evaluation was to assess project progress and review and evaluate management issues with a view to recommending improvements based on host government institutional capabilities and constraints. The team reviewed aspects of the project related to rehabilitations works, increasing the O&M capability of the provincial Irrigation Departments, procurement of new construction and maintenance equipment, workshop improvements, improved hydraulic design capability, development of management information systems, training, and improvements in water management at the federal level. The evaluation report was accepted by the Government and USAID, and provided the basis for the successful redesign of the project and the approval and funding of the second phase.

Activity No. 624A **August 1988: Closed**

Pakistan: Evaluation of the Command Water Management (CWM) Project. ISPAN provided a four-person team to carry out a mid-project evaluation of the CWM component of the ISM project through a buy-in from USAID/Islamabad. The team consisted of Russ Betts (DAI) team leader, Peter Reiss (DAI and the ISPAN-TSC), Gene White (DAI), and Tariq Husain (consultant). M.I. Chisti, Advisor to USAID/Islamabad, was also a member of the evaluation team. Dennis Hamilton of Training Associates Inc. in Bangkok conducted a TPM in Islamabad. The evaluation assessed the progress to date, particularly in the area of institutional development. The team assessed the CWM project approach in key areas such as increased

farmer participation, coordinated institutional, physical, and operational improvements in specific command areas, and the establishment of new sub-project management offices to coordinate water delivery and non-water inputs. The team provided recommendations aimed at improving implementation for the duration of the project. The draft evaluation report has been accepted by Government of Pakistan (GOP) and USAID/Islamabad.

Activity No. 630B — **August 1988: Finished**

Pakistan: Private Tubewell Development Applied Study. Through its Applied Studies Program, ISPAN supported a two-year study of private tubewell development in Pakistan. The study is complete and the final report has been distributed.

Activity No. 690C — **February 1990: Closed**

Pakistan: Irrigation Systems Management II Project Start-up Workshop. The Pakistan mission requested that ISPAN provide two facilitators to conduct a start-up workshop for Phase II of the ISM activity in March 1990 in Quetta, Pakistan.

Activity No. 740E — **July 1992: Finished**

Pakistan: Command Water Management Project Final Evaluation. ISPAN conducted a final evaluation of the CWM Project. The report was approved and printed.

Philippines:

Activity No. 725D — **March 1991: Closed**

Philippines: National Irrigation Administration Training of Trainers Workshops. In 1990, a team of ISPAN institutional development specialists assessed the training capabilities of the National Irrigation Administration (NIA) (Activity 682C). One of the primary recommendations of that report focused on the need for a training of trainers and organizational development intervention that would strengthen the training skills of the NIA trainers. The intervention was also to focus on how to institutionalize the new training methodologies that were introduced in the training of trainer courses. Two ISPAN trainers travelled to the Philippines three times (in April, July and November, 1991) and conducted the TOT workshops. A final summary report on the three TOT workshops and organizational assistance was completed and distributed in March 1992.

Sri Lanka:

Activity No. 643B — **January 1989: Closed**

Sri Lanka: Irrigation Systems Management Project Monitoring Procedures and Workshop. ISPAN provided two facilitators to conduct a workshop on a project monitoring and institutional development activity. Seventy participants attended the four day workshop in April 1989.

Activity No. 650B **March 1989: Closed**

Sri Lanka: ISMP Monitoring Procedures and Workshop Supervision. Core funding was used to establish this activity which was designed to provide backstopping, follow-up and continuity to the development of an effective project review workshop for Sri Lanka (Activity 643B). The funds were deobligated/returned to core during the reporting period because there were enough funds in 643B to cover this requirement.

Activity No. 689C **February 1990: Closed**

Sri Lanka: Irrigation Systems Management Project Mid-term Evaluation and Second Annual Review Workshop. ISPAN provided a project evaluation team and two facilitators to work together on a mid-term evaluation and review workshop. The evaluation and workshop were conducted in 1990.

Activity No. 691C **April 1990: Closed**

Sri Lanka: Irrigation Management Policy Support Activity. ISPAN carried out a long-term program to provide support for the implementation of the government's participatory irrigation management policy. The program was staffed in 1990 with Godfrey de Silva serving as director of the Secretariat, managing a team of long-term staff and consultants. IIMI is providing assistance under a subcontract to CDM. IMPSA produced nearly one hundred staff working papers and ten policy papers during its life. The latter are being turned into cabinet papers for GOSL approval.

Activity No. 729D **August 1991: Closed**

Sri Lanka: IMPSA Extension. This activity extended the IMPSA program by six months and amended the budget. See Activity No. 691C.

Activity No. 730D **August 1991: Closed**

Sri Lanka: Land and Water Rights Project Identification Document. ISPAN fielded a three-person team to Sri Lanka to assist the Mission in the development of a PID for a new project. The project was expected to focus on user rights to water resources in a country where most of the land and water resources are owned by the State. The ISPAN was later revised into the current project design thinking on control over resources for the SCOR Project.

Thailand:

Activity No. 642B **October 1990: Closed**

Thailand: NESSI Applied Study Supervisory. This activity was used to provide core funds to augment funding for the NESSI applied study.

Activity No. 667B **August 1989: Finished**

Thailand: Basin Management Study Design. As a follow-on the NESSI applied study, USAID/Bangkok provided funds to ISPAN to undertake a long-term study design in North and Northeast Thailand. The study proposed an examination of conflicting demands over water in the two provinces.

Tunisia:

Activity No. 681C **January 1990: Closed**

Tunisia: National WUA Strategy Design. An ISPAN consultant joined staff of WASH and the Institute of Development Anthropology to design a national strategy for creating and strengthening water users associations for potable and irrigation systems in Tunisia. The work was completed in 1990.

Activity No. 694C **July 1990: Closed**

Tunisia: WUA National Strategy. ISPAN is working jointly with WASH and the Institute of Development Anthropology on the creation and strengthening of a national strategy for water users associations. During the first year of the program, ISPAN conducted a study tour of Sri Lanka and the Philippines for senior Tunisian officials and a comparative study of approaches to organizing water users associations and staffing the governorate offices in Le Kef, Kairouan, and Kasserine. During the period, ISPAN conducted a mid-term strategy review with WASH, an institutional analysis to determine how best to situate a unit dedicated to the organizing activities, and a study to determine if multipurpose associations hold promise within the Tunisian context. The program concluded synthesis of the work and the formulation and presentation of the strategy to the Government of Tunisia and USAID. With remaining funding and the approval of USAID/Tunis, ISPAN prepared several materials to publicize the program, including a video, color brochure, pamphlet on WUAs, and posters for WUA offices.

ANNEX F

QUESTIONNAIRE USED AND RECIPIENT RESPONSES

ANNEX F
QUESTIONNAIRE USED AND RECIPIENT RESPONSES

Please find attached a brief evaluation questionnaire from the members of the ISPAN Final Evaluation Team [J.H. Eriksen and G. Corey]. The team began its work on the ISPAN evaluation last week at AID/W and will be travelling to USAID Missions in Egypt, Jordan and Bangladesh to observe ISPAN field activities from 8-25 September 1993. Unfortunately, neither the time nor the resources allocated for the evaluation will allow the team members to meet with each of you to discuss ISPAN past or present activities in your country.

The evaluation team would, however, like to solicit your views and opinions on a number of issues related to both ISPAN's performance over the last seven years and the future of AID water resource support activities after ISPAN's anticipated PACD on 31 May 1994. In addition to responding to the questionnaire itself, we would very much appreciate comments from you on any particular issue you believe to be of relevance to the evaluation.

Thank you very much for your cooperation in responding to the questionnaire during this exceptionally busy period. **PLEASE FAX YOUR COMPLETED QUESTIONNAIRES AND COMMENTARIES, IF ANY, TO THE ISPAN FINAL EVALUATION TEAM, C/O TIM MILLER, ASIA/DR/TR AT (202) 647-9843 OR (202) 647-1805.**

ISPAN FINAL EVALUATION QUESTIONNAIRE

In responding to the following questions, please select the response [0 to 5] that most appropriately describes your Mission's experience with ISPAN or your opinions about your Mission's future needs. If you would like to qualify or expand upon your responses, please attach your comments referenced to the appropriate question number.

1	=	Strongly agree
2	=	Agree
3	=	No opinion
4	=	Disagree
5	=	Strongly disagree
0	=	Does not apply to our specific Mission experience

Score

A. ISPAN PERFORMANCE

____ 1. The Mission has participated in core-funded ISPAN activities.

____ 2. The Mission has participated in Mission-funded buy-ins with ISPAN.

____ 3. Bureau personnel in AID/W have been effective in facilitating Mission requests for ISPAN services in a timely manner.

____ 4. The ISPAN Technical Support Center has responded promptly to the Mission's requests for assistance.

____ 5. In servicing Mission buy-ins, ISPAN has provided highly qualified technical assistance personnel.

____ 6. ISPAN has fielded technical assistance personnel conforming to the Mission's specific needs and criteria.

____ 7. ISPAN technical assistance personnel arrived at the Mission well briefed and prepared to execute their scopes of work.

____ 8. ISPAN technical assistance personnel sent to the Mission performed their in-country assignments in a professional manner and in conformance with the Mission's request.

____ 9. End-of-assignment field debriefings provided by ISPAN technical assistance personnel fulfilled Mission needs and expectations.

____ 10. The Mission received the ISPAN reports and/or other products within the time period specified in the buy-in contract(s).

____ 11. The ISPAN reports and other products received were of high quality and met the Mission's needs.

____ 12. The Mission has received ISPAN reports, applied studies, newsletters and other research products not related to a specific Mission buy-in on a regular basis.

____ 13. These ISPAN reports and other products have been useful to Mission and host country personnel.

____ 14. Mission and/or host country personnel have participated in in-country and/or regional training activities conducted by specialists provided through ISPAN.

____ 15. Training activities carried out with ISPAN assistance have been of high quality.

____ 16. The training activities were designed and implemented to be responsive to specific Mission and host country requirements.

____ 17. Training activities were accompanied by appropriate evaluation exercises to solicit participants' opinions of their effectiveness.

____ 18. The types of resources available through ISPAN have been supportive of the Mission's evolving strategy and portfolio.

____ 19. ISPAN assistance has enabled the Mission to improve the quality and performance of its strategy and portfolio.

____ 20. The design of water resource activities in the country has improved because of the assistance provided by ISPAN.

____ 21. The management of water resource programs in the country has improved because of the assistance provided by ISPAN.

____ 22. The operation and maintenance of specific irrigation and/or other water delivery systems has improved because of the assistance provided by ISPAN.

____ 23. The Mission's capacity to deal with water resource issues has improved because of the assistance provided by ISPAN.

____ 24. The host country's capacity to deal with water resource issues has improved because of the assistance provided by ISPAN.

____ 25. The implicit broadening of ISPAN's mandate from a narrow focus on irrigation activities to a more expansive definition of appropriate water resource activities after 1990 was compatible with the evolving needs of the Mission.

____ 26. Assistance from ISPAN will continue to be relevant to the Mission's program through ISPAN's PACD in May 1994.

(10)

B. **FUTURE REQUIREMENTS**

____ 1. Implementation of the Mission's strategy and management of its portfolio over the next five years will require continued access to expertise for the design, implementation and/or evaluation of water resource activities broadly defined.

____ 2. Specific water resource issues are sufficiently important to the Mission and the host country that they cannot be adequately handled in the context of the anticipated agency-wide environmental program.

____ 3. AID will continue to need a mechanism like ISPAN to service the needs of missions and host governments engaged with water resource issues.

____ 4. Any mechanism to support missions and host governments in the development of sustainable water resource systems in the future should be located in the new Bureau for Global Programs, Field Support and Research, be worldwide in scope, and provide for mission buy-ins for specific activities.

____ 5. Any mechanism to support missions and host governments in the development of sustainable water resource systems in the future should be based in the reunited ANE Bureau and concentrate its efforts on region-specific water issues.

____ 6. Any centrally-based support mechanism for water resource activities should be limited to provision of only those resources that cannot or will not be secured directly by missions themselves.

10

SUMMARY OF USAID MISSION RESPONSES TO EVALUATION QUESTIONAIRE
PART A -- QUESTIONS ON ISPAN PERFORMANCE

USAID Mission	Question Number									
	1	2	3	4	5	6	7	8	9	10
Morocco	1	1	1	1	2	2	1	1	1	1
Egypt	2	1	2	2	2	2	4	2	2	4
Jordan	1	1	1	1	2	1	2	1	2	1
Oman	2	2	2	2	2	2	2	2	2	2
Pakistan	4	2	1	1	1	1	1	1	4	2
India	0	2	1	1	2	2	2	1	2	2
Nepal	4	2	2	3	2	2	2	2	2	2
Bangladesh	1.3	1	3	2.3	1.5	1.5	1.8	1.3	1.3	2.5
Sri Lanka	2	1	2	2	2	1	1	2	1	3
Thailand	2	2	2	2	1	2	1	1	1	1
Indonesia	1	2	2	2	1	2	2	2	2	4
Philippines	1	1	2	1	1	1	1	1	1	2
Average of Responses from all Missions	1.94	1.50	1.75	1.69	1.63	1.63	1.73	1.44	1.78	2.22
Mode of Responses from all Missions	1	2	2	1 or 2	2	2	2	1.5	2	2
Range of Mission Responses	1-4	1-2	1-3	1-3	1-2	1-2	1-4	1-2	1-4	1-4

SUMMARY OF USAID MISSION RESPONSES TO EVALUATION QUESTIONAIRE
PART A -- QUESTIONS ON ISPAN PERFORMANCE

USAID Mission	Question Number									
	11	12	13	14	15	16	17	18	19	20
Morocco	1	1	2	0	0	0	0	1	2	2
Egypt	2	1	2	2	1	1	1	2	3	2
Jordan	1	3	2	1	2	2	1	1	2	2
Oman	2	2	2	0	0	0	3	2	0	2
Pakistan	4	2	2	2	2	2	2	3	3	3
India	1	2	1	0	1	1	1	2	3	1
Nepal	2	2	3	2	0	0	0	0	3	4
Bangladesh	1.5	2.3	1.8	1	1.3	1.3	1.5	1.3	1.3	1.5
Sri Lanka	2	2	3	1	2	1	3	1	3	2
Thailand	1	2	2	0	3	3	3	2	1	1
Indonesia	2	3	2	0	3	3	3	2	2	3
Philippines	1	1	2	1	1	1	1	1	2	3
Average of Responses from all Missions	1.71	1.94	2.07	1.43	1.81	1.70	1.95	1.66	2.11	2.21
Mode of Responses from all Missions	1 or 2	2	2	1	1	1	1 or 3	2	3	2
Range of Mission Responses	1-4	1-3	1-3	1-2	1-3	1-3	1-3	1-3	1-3	1-4

SUMMARY OF USAID MISSION RESPONSES TO EVALUATION QUESTIONAIRE
PART A -- QUESTIONS ON ISPAN PERFORMANCE

USAID Mission	Question Number							
	21	22	23	24	25	26	Mission Average 1/	Mission Range 2/
Morocco	2	0	1	2	1	2	1.38	1-2
Egypt	2	2	2	2	2	1	1.96	1-4
Jordan	0	0	2	2	1	1	1.5	1-3
Oman	2	3	0	2	2	No	2.0	1-3
Pakistan	3	3	3	3	3	3	2.35	1-4
India	3	1	3	3	1	1	1.67	1-3
Nepal	4	5	3	5	0	0	2.65	2-5
Bangladesh	1.7	3	1.7	1.3	1	1	1.62	1-3
Sri Lanka	2	3	3	2	2	3	2.0	1-3
Thailand	1	1	2	1	2	0	1.67	1-3
Indonesia	3	3	2	3	2	2	2.32	1-3
Philippines	2	1	3	1	1	4	1.46	1-4
Average of Responses from all Missions	2.34	2.50	2.33	2.28	1.64	2.00		
Mode of all Mission Responses	2	3	3	2	1 or 2	1		
Range of Mission Responses	1-4	1-5	1.7-3	1-5	1-3	1-4		

Notes:

1/ Average of individual Mission's responses.

2/ Range of individual Mission's reponses.

3/ USAID Missions in Tunisia and Yemen did not respond to the evaluation questionnaire.

4/ Responses of 0 and No were not included in averages.

5/ Multiple responses were received from USAID/Bangladesh and responses for each question were averaged.

SUMMARY OF USAID MISSION RESPONSES TO EVALUATION QUESTIONAIRE
PART B -- QUESTIONS ABOUT THE FUTURE

USAID Mission	Question Number							
	1	2	3	4	5	6	Mission Average 1/	Mission Range 2/
Morocco	2	2	2	4	2	2	2.33	2-4
Egypt	1	1	2	4	4	4	2.67	1-4
Jordan	1	2	1	2	4	2	2.00	1-4
Oman	No	No	2	4	2	2	2.5	2-4
Pakistan	3	5	5	3	1	1	3.00	1-5
India	-	-	-	-	-	-	-	-
Nepal	-	-	-	-	-	-	-	-
Bangladesh	1	1.5	1.3	3.5	1.8	2	1.85	1-3.5
Sri Lanka	1	3	5	2	4	1	2.67	1-5
Thailand	4	4	2	2	4	4	3.33	2-4
Indonesia	3	3	2	1	1	3	2.17	1-3
Philippines	2	1	3	1	1	4	1.46	1-4
Average of Responses from all Missions	2.00	2.50	2.53	2.65	2.48	2.50		
Mode of all Mission Responses	1	2 or 3	2	2 or 4	4	2		
Range of Mission Responses	1-4	1-5	1-5	1-4	1-4	1-4		

Notes:

1/ Average of individual Mission's responses.

2/ Range of individual Mission's reponses.

3/ USAID Missions in Tunisia and Yemen did not respond to the evaluation questionnaire.

4/ Responses of 0 and No were not included in averages.

5/ Multiple responses were received from USAID/Bangladesh and responses for each question were averaged.

ANNEX G

ISPAN FINANCIAL INFORMATION

TABLE 7 - FUNDING AND ESTIMATED COST AT COMPLETION BY ACTIVITY
(Inception to Date)

ACT. NO.	ACTIVITY NAME	FUNDING	TYPE*	ESTIMATED COST AT COMPLETION (if different from funding)
601A	US: Workshop Training/Strategy Irr. Agri. Development	$83,055	C	
602A	EGYPT: Project Management System for IMS Projects	$26,746	C	
603A	EGYPT: Management Training Program	$19,744	C	
604A	PAKISTAN: Evaluation of ISM-1 Project	$139,669	O	
605A	INDONESIA: SSIMP Start-up Workshop	$18,586	O	
606A	INDONESIA: Management Training Assessment	$10,236	C	
607A	TUNISIA: PID Prep/Imp. Water Research Management Project	$2,410	C	
608A	EGYPT: Strategic Energy Issues Program Irrigation	$44,157	C	
609A	REGIONAL: ISPAN Regional Irrigation Management Workshop	$50,223	C	
610A	INDIA: Evaluation - HALWD Project Himachal Pradesh	$28,084	O	
611A	US: TPM Training of Trainers	$3,184	C	
612A	INDIA: Coordinate/Develop ISPAN Activity	$8,033	C	
613A	MOROCCO: Supplement Irrigation PP Design	$76,444	O	
614A	MOROCCO: TPM/Supplement Irrigation PP Design	$4,837	C	
615A	BUREAU: ISPAN Annual Planning Workshop	$12,196	C	
616A	TUNISIA: Special Studies SOWs - IWRM Project	$1,118	C	
617A	REGIONAL: Regional Institution Site Visit	$7,542	C	
618A	BUREAU: Manuscript Cost Recovery/Finance	$901	C	
619A	INDIA: MPMIP (Madhya Pradesh) - Task 1	$110,709	O	
620A	INDIA: MPMIP (Madhya Pradesh) - Task 2	$77,042	O	
621A	INDIA: MPMIP (Madhya Pradesh) - Task 3	$6,774	O	
622A	INDIA: MPMIP (Madhya Pradesh) - Task 4	$60,648	O	
623A	INDIA: MPMIP (Madhya Pradesh) - Task 5	$1	O	
624A	PAKISTAN: Evaluation of the Command Water Mgmt. Project	$115,498	O	

NOTE * Type of funding: O = Order; T = Task; C = Core

= closed by end of reporting period

TABLE 7 - FUNDING AND ESTIMATED COST AT COMPLETION BY ACTIVITY
(Inception to Date)

ACT. NO.	ACTIVITY NAME	FUNDING	TYPE*	ESTIMATED COST AT COMPLETION (If different from funding)
625A	INDIA: Evaluation of the IM&T Project	$45,834	O	
626A	INDIA: Water Management Technology & Research Specialist	$141,995	O	
627A	BUREAU: ANE Irrigation Strategy for the 1990s	$39,046	C	
628B	PHILIPPINES: AAP Applied Studies Design	$3,552	C	
629B	BANGLADESH: Review Mission Water Sector Activity	$20,912	C	
630B	PAKISTAN: Private Tubewell Development/Applied Study	$83,339	C	
631B	INDIA: MMIP (Maharashtra) Micro-Computers	$81,309	O	
632B	INDIA: Maharashtra Irrigation Tech. Mgmt. Project - Phase I	$5,958	C	
633B	SRI LANKA: Inst. Support Irrigation Policy Implementation	$27,595	C	
634B	REGIONAL: Eastern Waters Study	$299,900	C	
635B	REGIONAL: Training Strategy Follow-up	$1,993	C	
636B	EGYPT: Professional Development Start-up Workshop	$13,540	O	
637B	EGYPT: RIIP Start-up Workshop	$31,586	O	
638B	EGYPT: Water Research Center Start-up Workshop	$24,468	O	
639B	US: ISPAN Annual Report No. 1	$18,981	C	
640B	EGYPT: Irrigation Systems Management Project Evaluation	$71,254	O	
641B	THAILAND: NESSI Applied Study	$62,953	O	
642B	THAILAND: NESSI Applied Study Supervision	$36,311	C	
643B	SRI LANKA: ISMP Monitoring Procedures and Workshop	$52,971	O	
644B	REGIONAL: Training Strategies Workshop Report	$29,367	C	
645B	INDIA: Dam Safety Conference	$10,352	O	
646B	NEPAL: Irrigation Management Project Mid-term Evaluation	$59,271	O	
647B	BANGLADESH: Water Sector Assessment	$39,744	O	
648B	INDIA: Maharashtra Minor Irrigation Project - Modeling	$172,702	O	

NOTE * Type of funding: O = Order; T = Task; C = Core

= closed by end of reporting period

TABLE 7 - FUNDING AND ESTIMATED COST AT COMPLETION BY ACTIVITY
(Inception to Date)

ACT. NO.	ACTIVITY NAME	FUNDING	TYPE*	ESTIMATED COST AT COMPLETION (If different from funding)
649B	INDIA: Maharashtra Minor Irrigation Project - Scheduling	$63,319	O	
650B	SRI LANKA: ISMP Monitoring Proc. & Workshop Supervision	$0	C	
651B	REGIONAL: Institutional Strengthening Regional Network	$771	C	
652B	INDONESIA: SSIMP Mid-term Evaluation	$90,084	O	
653B	REGIONAL: Technology Transfer/Information Sharing	$265	C	
654B	INDONESIA: Sederhana and HPSIS Applied Study	$53,992	O	
655B	EGYPT: Planning Studies and Models Start-up Workshop	$16,873	O	
656B	EGYPT: Preventative Maintenance Start-up Workshop	$26,434	O	
657B	EGYPT: Survey and Mapping Start-up Workshop	$25,026	O	
658B	EGYPT: Main System Management Start-up Workshop	$32,845	O	
659B	EGYPT: IMS Steering Committee Start-up Workshop	$37,708	O	
660B	BUREAU: ANE Irrigation Strategy	$12	C	
661B	INDIA: Eastern Waters Study Follow-up	$3,115	O	
662B	INDIA: Cost Recovery Workshop	$14,183	O	
663B	PHILIPPINES: AAP Project Mid-term Evaluation	$47,963	O	
664B	NEPAL: IMP Redesign	$45,343	O	
665B	INDIA: Madhya Pradesh Mid-term Evaluation	$70,731	O	
666B	REGIONAL: Training Guidelines Report Translation	$6,301	C	
667B	THAILAND: NESSI Closing Policy Workshop	$45,886	O	
668B	THAILAND: Basin Management Study Design	$3,421	O	
669B	INDONESIA: Sederhana Applied Study Local Staffing	$176,838	O	
670B	REGIONAL: EWI-I: Program Management	$657,670	T	
671B	BUREAU: Irrigation and Drainage Research Papers	$29,298	C	
672B	REGIONAL: EWI-I/Bangladesh: Management & Coordination	$1,186,096	T	

NOTE * Type of funding: O = Order; T = Task; C = Core

= closed by end of reporting period

TABLE 7 - FUNDING AND ESTIMATED COST AT COMPLETION BY ACTIVITY
(Inception to Date)

ACT. NO.	ACTIVITY NAME	FUNDING	TYPE*	ESTIMATED COST AT COMPLETION (if different from funding)
673B	REGIONAL: EWI-I: Regional Research Coordination	$19,777	T	
674B	REGIONAL: EWI-II: Program Management	$11,420	T	
676C	EGYPT: SOW for IMS Evaluation	$11,618	O	
677C	BUREAU: Improving Irrigation Scheduling Applied Study	$17,452	C	
678C	EGYPT: Mobilizing Resources	$2,547	C	
679C	BUREAU: Occasional Paper on Start-up Workshops	$15	C	
680C	INDONESIA: SSIMP Mid-term Review Workshop	$24,636	O	
681C	TUNISIA: National WUA Strategy Design	$16,304	O	
682C	PHILIPPINES: NIA Training Assessment	$41,747	O	
683C	BUREAU: International Drainage Workshop	$4,586	C	
684C	REGIONAL: EWI-I: Nepal	$97,710	T	
685C	BUREAU: System Turnover and Local Participation	$31	C	
686C	BUREAU: Design for Performance	$16	C	
687C	BUREAU: Farmers and Agencies, Lessons Learned	$0	C	
688C	EGYPT: Structural Replacement Workshop	$3,050	O	
689C	SRI LANKA: ISMP Evaluation/Monitoring Workshop	$102,157	O	
690C	PAKISTAN: Irr. Systems Mgmt. Project II Start-up Workshop	$28,889	O	
691C	SRI LANKA: Irrigation Management Policy Support Activity	$889,507	O	
692C	EGYPT: Irrigation Mgmt. Systems Project Mid-term Evaluation	$192,180	O	
693C	BUREAU: Water Management Synthesis II Project Paper	$8,370	C	
694C	TUNISIA: WUA National Strategy	$244,682	O	
695C	INDONESIA: National Pump Irrigation Policy Study	$332,830	O	
696C	MOROCCO: Water Policy Studies	$253,094	O	
697C	REGIONAL: EWI-I: TSC Support Services	$232,912	T	

NOTE * Type of funding: O = Order; T = Task; C = Core

= closed by end of reporting period

TABLE 7 - FUNDING AND ESTIMATED COST AT COMPLETION BY ACTIVITY
(Inception to Date)

ACT. NO.	ACTIVITY NAME	FUNDING	TYPE*	ESTIMATED COST AT COMPLETION (If different from funding)
698C	REGIONAL: EWI-II: TSC Support Services	$134,815	T	
699C	REGIONAL: EWI-III: TSC Support Services	$24,798	T	
701C	REGIONAL: EWI-III: Advisory Group	$214,308	T	
702C	REGIONAL: EWI-I: International Meetings	$68,689	T	
704C	REGIONAL: EWI-I FAP #14: Flood Response - Phase I	$214,599	T	
705C	REGIONAL: EWI-II FAP #14: Flood Response - Phase II	$429,539	T	
706C	REGIONAL: EWI-I FAP #16: Environment - Phase I	$194,951	T	
707C	REGIONAL: EWI-II FAP #16: Environment - Phase II	$1,285,101	T	
708C	REGIONAL: EWI-I FAP #19: GIS - Phase I	$712,775	T	
709C	REGIONAL: EWI-IV FAP #19: GIS - Phase II	$724,509	O	
710C	REGIONAL: EWI-I FAP #23: Flood Proofing	$233,725	T	
711C	REGIONAL: EWI-III: Panel of Experts	$203,319	T	
713C	REGIONAL: EWI-I India: Flood Forecstg, Preparedness, Proofg	$0	T	
714D	EGYPT: IIP Review Workshop	$33,295	O	
715D	EGYPT: Main Systems Mgmt. Monitoring & Review Workshop	$7,228	O	
716D	EGYPT: Planning Studies/Models Monitoring & Review Wrkshop	$12,194	O	
718D	EGYPT: Training of Trainers	$6,135	O	
719D	EGYPT: Water Research Ctr. Monitoring & Review Workshop	$16,474	O	
724D	BUREAU: Water Resources Policy Strategy	$356,630	C	$358,430
725D	PHILIPPINES: Training of NIA Trainers - Workshop No. 1 & 2	$125,121	O	
726D	EGYPT: Cost Recovery Study No. 1	$284,898	O	$288,167
727D	MOROCCO: Water Efficiency & Environ. Protection Proj. Paper	$208,871	O	
728D	OMAN: Water Laboratory Technical Assistance Project	$69,881	O	
729D	SRI LANKA: Irrigation Mgmt. Policy Support Activity - Phase II	$141,114	O	

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TABLE 7 - FUNDING AND ESTIMATED COST AT COMPLETION BY ACTIVITY
(Inception to Date)

ACT. NO.	ACTIVITY NAME	FUNDING	TYPE*	ESTIMATED COST AT COMPLETION (If different from funding)
730D	SRI LANKA: Agricultural Land and Water Rights PID	$43,374	O	
731D	TURKEY: Middle Eastern Water Summit	$15,143	C	
732E	INDIA: WRM&T Evaluation	$90,254	O	
733E	BUREAU: ISPAN Newsletter	$24,112	C	$64,112
734E	EGYPT: IMS Review Workshop	$36,616	O	
735E	EWI: Program Management - Phase III	$130,039	O	
736E	EWI: Bangladesh Management & Coord. - Phase III	$746,183	O	
737E	EWI: FAP16: Environment - Phase III	$1,015,557	O	
738E	BUREAU: Regional Water Schemes	$107,806	C	
739E	BUREAU: Gulf of Aqaba Environmental Issues	$282,389	C	
740E	PAKISTAN: Command Water Management Final Evaluation	$158,178	O	
742E	BUREAU: Environmental and Near East Workshop	$40,192	C	
743E	INDIA: Water Resources - Activity Planning & Management	$182,305	C	
744E	INDIA: Water Mgmt. Support Program - S&T Exchanges	$791,631	C	
745E	INDIA: Water Mgmt. Support Prog. - Promoting Farmer Orgs.	$163,031	C	
746E	INDIA: Water Mgmt. Support Prog. - Org. & Procedural Changes	$263,033	C	
747F	BUREAU: Policy Lessons Learned	$84,242	C	
748F	BUREAU: Water Resources Sustainability Applied Study	$355,244	C	$365,698
749F	BUREAU: Water Resource Mgmt. Seminar Series for USAID	$8,954	C	$30,954
751F	BUREAU: NE Water Treatment Workshop Scope of Work	$2,407	C	
752F	BUREAU: ISPAN Publications Support	$25,017	C	
724F	BUREAU: NE Water Resources Action Plan	$11,996	C	
753F	JORDAN: Jordan Valley Baseline Study	$265,381	O	
754F	BUREAU: WUA Performance & Sustainability	$247,232	C	

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TABLE 7 - FUNDING AND ESTIMATED COST AT COMPLETION BY ACTIVITY
(Inception to Date)

ACT. NO.	ACTIVITY NAME	FUNDING	TYPE*	ESTIMATED COST AT COMPLETION (If different from funding)
755F	EGYPT: IMS/IIP Evaluation Preparation	$10,100	C	
756F	BUREAU: Water Technologies Seminar	$8,631	C	
757F	BUREAU: NE Water Conservation Scope	$7,500	C	
758F	BUREAU: Sri Lanka Case Study Experts for Wtr. Res. Plng.	$49,540	C	
901A	BUREAU: General Administration	$733,672	C	
902A	BUREAU: Preliminary Activity Development	$422,547	C	
903A	BUREAU: General Technical Support	$154,771	C	
904A	BUREAU: Information Services	$123,542	C	
905A	BUREAU: Selection of Regional Institutions	$23,956	C	
906A	BUREAU: Mobilization	$140,215	C	
907A	BUREAU: Research Plan	$14,705	C	
908A	BUREAU: Liaison Officers	$52,079	C	
921B	BUREAU: Activity Preparation	$58,152	C	
923B	BUREAU: Mission Program Support	$204	C	
924B	BUREAU: Program Support	$2,549	C	
925B	BUREAU: Applied Studies Program Development	$15,698	C	
926B	BUREAU: HRD Program Development	$2,279	C	
927B	BUREAU: Information and Documentation	$1,266	C	
928B	BUREAU: Regional Institutions	$225	C	
931B	BUREAU: Program Planning	$103,851	C	
932B	BUREAU: Systems Development and Maintenance	$22,512	C	
933B	BUREAU: Progress Reporting	$4,077	C	
934B	BUREAU: Project Management and Financial Control	$87,284	C	
941B	BUREAU: TSC Support Services	$291,322	C	

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TABLE 7 - FUNDING AND ESTIMATED COST AT COMPLETION BY ACTIVITY
(Inception to Date)

ACT. NO.	ACTIVITY NAME	FUNDING	TYPE*	ESTIMATED COST AT COMPLETION (If different from funding)
942B	BUREAU: TSC Direct Costs	$762	C	
921C	BUREAU: Activity Preparation	$68,360	C	
922C	BUREAU: Home Office Backstopping	$52,962	C	
932C	BUREAU: System Maintenance	$26,763	C	
933C	BUREAU: Progress Reporting	$5,665	C	
934C	BUREAU: Project Management	$112,779	C	
935C	BUREAU: Activity Administration	$70,413	C	
936C	BUREAU: Financial Data Processing	$72,907	C	
941C	BUREAU: TSC Supporting Services	$23,994	C	
942C	BUREAU: TSC Direct Costs	$127,798	C	
921D	BUREAU: Activity Development	$14,096	C	
922D	BUREAU: Home Office Backstopping	$20,714	C	
934D	BUREAU: Project Administration	$95,550	C	
935D	BUREAU: Activity Administration	$7,772	C	
937D	BUREAU: Activity Administration	$52,084	C	
942D	BUREAU: TSC Direct Costs	$117,624	C	
921E	BUREAU: Activity Development	$51,218	C	
922E	BUREAU: Home Office Backstopping	$4,722	C	
934E	BUREAU: Project Administration	$140,797	C	
937E	BUREAU: Activity Administration	$212,360	C	
942E	BUREAU: TSC Direct Costs	$146,539	C	
943E	BUREAU: Indirect Cost Adjustments	$28,813	C	
921F	BUREAU: Activity Development	$38,262	C	
922F	BUREAU: Home Office Backstopping	$10,900	C	

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TABLE 7 - FUNDING AND ESTIMATED COST AT COMPLETION BY ACTIVITY
(Inception to Date)

ACT. NO.	ACTIVITY NAME	FUNDING	TYPE*	ESTIMATED COST AT COMPLETION (If different from funding)
931F	BUREAU: Support to Missions**	$50,460	C	
934F	BUREAU: Project Administration	$126,479	C	
935F	BUREAU: Activity Overruns	$19,378	C	
937F	BUREAU: Activity Administration	$472,561	C	
942F	BUREAU: TSC Direct Costs	$269,829	C	
943F	BUREAU: Indirect Cost Adjustments	$4,165	C	
	TOTAL	$23,023,166		

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** Funds were transferred to 758F for the Sri Lanka activity. Together these two activities total $100,000 in support to Missions.

ISPAN PIO/T SUMMARY REPORT FOR THE MONTH ENDING 28-AUGUST-1993

From: CDM International Inc.
1611 N. Kent Street, Suite 1001
Arlington, VA 22209

TO: USAID Office of Financial Management
Washington, DC 20523

Contract Number: ANE-0289-C-00-7044-00
Contract Amount: $26,000,000
Obligated Amount: $23,990,625

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BUDGET PLANNING CODE	PIOT NO.	AMEND NUMBER	AMEND DATE	SPONSOR SPONSOR	OBLIGATED AMOUNT	INVOICED CURRENT MONTH	INVOICED INCEPTION TO DATE	BALANCE REMAINING	
QDNA-87-37398-KG-12	3-763-1510	-	8/14/87	ANE Regional	$639,725	$0.00	$639,725.00	$0	
DDNA-87-13600-KG11	7361172	-	8/14/87	S&T Regional	100,000	0.00	100,000.00	0	
QES7-87-27391-KG13	391-0467-3-70326	Amend #1	1/21/88	Pakistan	143,404	0.00	139,668.81	3,735	604A
HDAA-85-27497-AG13	497-347-3-50131	Amend #2	2/19/88	Indonesia	18,586	0.00	18,586.00	0	605A
QDNA-88-27386-KG-62	398-0249-3-80008	Amend #3	3/18/88	India	35,000	0.00	28,084.00	6,916	610A
N/A	N/A	Amend #4	3/15/8		0	0.00	0.00	0	
QDNA-88-37398-KG-12	398-0289-3-8631501	Amend #5	5/25/88	ANE Regional	875,000	0.00	875,000.00	0	
QDNA-88-37398-KG-12	398-0289-?-8631501	Amend #6	6/28/88	ANE Regional	200,000	0.00	200,000.00	0	
QDNA-88-27608-KG62	608-0249-3-88022	Amend #7	6/22/88	Morocco	69,965	0.00	69,965.00	0	613A
DDNA-88-13600-KG11	8361436	Amend #8	7/21/88	S&T Regional	30,000	0.00	30,000.00	0	601A
QDNA-88-27386-KG-12	398-0282-3-80024	Amend #9	7/27/88	India	154,225	0.00	141,994.84	12,230	626A
QES8-88-27391-KG13	391-0467-3-80033	Amend #10	8/16/88	Pakistan	115,641	0.00	115,497.64	143	624A
HDAA-83-27386-AG-13	386-0483-3-30159	Amend #11	8/18/88	India	415,676	0.00	325,703.44	89,973	
QDNA-88-27386-KG13	386-0484-3-70116	Amend #12	9/26/88	India	47,399	0.00	45,834.16	1,565	625A
HDAA-84-27386-AG13	386-0490-3-40178	Amend #13	9/30/88	India	82,613	0.00	81,293.87	1,319	631B
QDNA-88-37398-KG-12	3-8631501,A.2	Amend #14	9/30/88	ANE Regional	80,000	0.00	80,000.00	0	
QDNA-88-37398-00-69-81	3-8631501,A3	Amend #14	9/30/88	ANE Regional	48,239	0.00	48,239.00	0	
QDSA-88-27608-KG-62	3-88022	Amend #14	9/30/88	Morocco	6,500	0.00	6,481.00	19	613A
QDNA-89-37398-KG-12	398-0289-3-9631501	Amend #15	1/18/89	ANE (EWI)	300,000	0.00	300,000.00	0	634B
QES8-88-27263-KG13	3-88065	Amend #16	1/18/89	Egypt	93,322	0.00	93,322.00	0	
QES7-87-27263-KG13	3-70267	Amend #16	1/18/89	Egypt	84,900	0.00	59,133.51	25,766	
QDNA-89-37398-KG-12	398-0289-3-9631501A1	Amend #17	2/01/89	ANE Regional	980,000	0.00	980,000.00	0	
QDNA-88-27493-JG13	493-0312-3-80066	Amend #18	2/27/89	Thailand	40,000	0.00	40,000.00	0	641B
QDNA-88-27493-KG62	493-0312-3-80066	Amend #18	2/27/89	Thailand	22,962	0.00	22,956.40	6	641B
QDAS-86-27383-AG13	383-080-3-69064	Amend #19	3/23/89	Sri Lanka	40,955	0.00	40,955.00	0	643B
QDAS-87-27386-AG13	386-0484-70143	Amend #20	3/23/89	India	11,454	0.00	10,331.61	1,122	645B
QDNA-89-27367-KG13	367-0153-3-90008	Amend #21	3/23/89	Nepal	84,363	0.00	59,271.26	25,092	646B
QDAS-86-27383-AG-13	383-080-3-69064A-1	Amend #22	4/13/89	Sri Lanka	17,189	0.00	11,976.94	5,212	643B
QDNA-89-27388-KG-62	398-0249-3-90030A-1	Amend #23	4/26/89	Bangladesh	11,752	0.00	11,752.00	0	647B
QDNX-89-27388-KG13	388-0074-3-90041A-1	Amend #23	4/26/89	Bangladesh	28,084	0.00	27,992.11	92	647B
HDAA-84-27386-AG13	386-0490-3-4019%	Amend #24	5/18/89	India	238,422	0.00	236,020.62	2,401	
HDAA-85-27497-AG13	497-0347-3-40599	Amend #25	6/07/89	Indonesia	57,648	0.00	55,376.24	2,272	654B
QES8-88-27263-KG13	263-0132-3-88065	Amend #26	6/26/89	Egypt	182,134	0.00	174,965.19	7,169	
HDAA-85-27497-AG13	3-50197	Amend #27	7/14/89	Indonesia	68,760	0.00	68,760.00	0	652B
HDAA-85-27497-AG13	3-50197, A.1	Amend #27	7/14/89	Indonesia	21,324	0.00	21,303.03	21	652B

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BUDGET PLANNING CODE	PIOT NO.	AMEND NUMBER	AMEND DATE	SPONSOR SPONSOR	OBLIGATED AMOUNT	INVOICED CURRENT MONTH	INVOICED INCEPTION TO DATE	BALANCE REMAINING	
QDNA-89-37398-KG-12	398-0289-3-9631501	Amend #28	8/23/89	ANE Regional	530,000	0.00	529,999.83	0	
DDNA-89-13600-KG-11	9361526	Amend #28	8/23/89	S&T Regional	50,000	0.00	50,000.00	0	
QDNA-88-27367-KG13	367-0153-3-80146	Amend #29	9/05/89	Nepal	53,542	0.00	45,342.80	8,199	664B
QDAA-8627492-AG13	492-0385-3-60285	Amend #30	9/20/89	Philippines	55,757	0.00	47,963.00	7,794	663B
QDNA-89-27493-JG62	493-0249-3-90076	Amend #31	9/19/89	Thailand	49,307	0.00	40,488.48	8,819	
QNDA-89-27386-KG-62	398-0249-3-90020	Amend #32	9/20/89	India	53,641	0.00	17,297.89	36,343	
ODNX-89-27386-KG-62	398-0249-3-90020	Amend #32	9/20/89	India	0	0.00	0.00	0	
QDNA-89-37398-KG12	398-0289-3-9631501	Amend #33	9/29/89	ANE (EWI-I)	3,700,000	44,292.94	3,571,868.27	128,132	
QESA-86-27664-KG-13	664-0337-3-00005	Amend #34	1/20/90	Tunisia	16,906	0.00	16,304.04	602	681C
HDAA-85-27497-AG-13	497-0347-3-50222	Amend #35	2/16/90	Indonesia	26,308	0.00	24,635.61	1,672	680C
HDAA-83-27386-AG-13	386-0483-3-30159	Amend #36	3/01/90	India	(21,985)	0.00	0.00	(21,985)	665B
QDNA-87-27383-AG13	383-0080-3-70078	Amend #37	2/28/90	Sri Lanka	114,699	0.00	102,157.87	12,541	689C
QDAS-86-27492-AG13	492-0385-3-60301	Amend #38	3/07/90	Philippines	44,890	0.00	41,747.07	3,143	682C
QDAA-86-27497-AG13	497-347-3-60125	Amend #39	3/26/90	Indonesia	172,841	0.00	172,841.00	0	669B
QDNA-88-27391-AG13	391-0467-3-80167/A1	Amend #40	4/12/90	Pakistan	43,740	0.00	28,889.40	14,851	690C
QDNA-89-27383-KG13	383-0085-3-79067	Amend #41	4/27/90	Sri Lanka	899,417	0.00	889,506.78	9,910	691C
QES-8-88-27263-KG13	263-0132-3-88264	Amend #42	4/27/90	Egypt	194,347	0.00	192,179.75	2,167	692C
QDNA-90-37398-KG12	398-0289-3-0631501	Amend #43	5/11/90	ANE Regional	320,000	0.00	320,000.00	0	
QESA-86-27664-KG-13	664-337-3-00049	Amend #45	8/7/90	Tunisia	244,683	0.00	244,683.00	0	694C
QDNA-90-27608-KG-62	608-0249-3-00023	Amend #46	8/16/90	Morocco	266,826	0.00	253,094.00	13,732	696C
QDAA-86-27497-AG-13	497-347-3-60137	Amend #47	8/22/90	Indonesia	332,832	11.07	288,507.54	44,324	695C
QDNA-90-37398-KG-12	398-0289-3-0631501	Amend #48	9/11/90	ANE Regional	80,000	0.00	79,999.91	0	
QDNA-90-37398-KG-12	398-0289-3-0631501	Amend #49	9/21/90	ANE (EWI-II)	1,272,400	0.00	1,272,400.08	(0)	
QDNA-90-37398-JG-12	398-0289-3-0631503	Amend #50	9/21/90	ANE (EWI-III)	348,984	0.00	348,984.00	0	
QDNX-90-37398-KG-12	398-0289-3-0631504	Amend #50	9/21/90	ANE (EWI-III)	50,837	5,704.73	17,191.83	33,645	
QDNA-90-37398-KG-12	398-0289-3-0631501	Amend #50	9/21/90	ANE (EWI-III)	50,000	0.00	0.00	50,000	
HDAA-84-27386-AG-13	386-0483-3-30159,A3	Amend #53	1/9/91	India	12,685	0.00	0.00	12,685	
QES8-88-27263-KG-13	263-0132.3-88065	Amend #54	1/18/91	Egypt	80,405	380.05	74,215.32	6,190	
PDNA-91-37499-KG-12	389-289-3-1672171	Amend #55	1/28/91	APRE	500,000	0.00	500,000.00	0	
QDNA-90-27492-KG-13	492-0385-3-00199	Amend #56	3/21/91	Philippines	44,626	0.00	44,626.00	0	
QDNA-90-27492-KG-13	492-0385-3-00199	Amend #57	6/28/91	Philippines	46,298	0.00	46,298.00	0	
QES9-89-27272-KG-13	272-0104-3-00008	Amend #58	6/28/91	Oman	194,000	0.00	69,880.89	124,119	
QES8-88-27263-KG-13	263-0132-3-88432	Amend #59	8/12/91	Egypt	132,967	0.00	132,967.00	0	
QDNA-91-23608-KG-62	608-0249-3-10011	Amend #60	8/12/91	Morocco	208,899	0.00	208,870.18	29	
QDNA-91-27383-KG-62	383-499-3-11014	Amend #61	8/19/91	Sri Lanka	55,281	0.00	43,374.00	11,907	
PDNA-91-27383-KG-13	383-085-3-11009	Amend #62	8/26/91	Sri Lanka	268,974	0.00	141,114.00	127,860	
PDNA-91-37499-KG-12	389-0289-3-1672171	Amend #63	8/26/91	APRE	37,000	0.00	37,000.00	0	
QDNA-89-27388-JG-13	388-0074-3-90183	Amend #64	9/17/91	Bangladesh	415,000	0.00	415,000.00	0	
QDNX-89-27388-KG-13	388-0074-3-90183	Amend #64	9/17/91	Bangladesh	309,509	0.00	309,509.00	0	
QDNA-90-27492-KG-13	492-0385-3-00199	Amend #66	2/6/92	Philippines	54,431	0.00	34,197.00	20,234	
QDNA-89-27386-JG-13	386-0484-3-90090	Amend #67	2/6/92	India	94,560	0.00	90,254.36	4,306	
HDNA-92-37499-KG-12	398-0289-3-2672501	Amend #68	2/3/92	Asia	1,000,000	0.00	1,000,000.00	0	
HDNA-92-33298-KG-62	298-0249-3-2632001	Amend #71	4/10/92	NE	500,000	0.00	500,000.00	0	

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BUDGET PLANNING CODE	PIOT NO.	AMEND NUMBER	AMEND DATE	SPONSOR SPONSOR	OBLIGATED AMOUNT	INVOICED CURRENT MONTH	INVOICED INCEPTION TO DATE	BALANCE REMAINING
QES8-88-27263-KG-13	263-0132-3-88432	Amend #72	6/25/92	Egypt	147,780	0.00	147,780.00	0
HDN2-92-37499-KG-12	398-0289-3-2672514	Amend #73	7/20/92	ANE	483,512	0.00	483,511.94	0
QDNA-88-27391-KG-13	391-0467-3-90221	Amend #74	8/12/92	Pakistan	41,870	0.00	41,870.00	0
QDNA-89-27391-KG-13	391-0467-3-90221	Amend #74	8/12/92	Pakistan	116,307	153.83	88,120.54	28,186
HDNA-92-37499-JG-12	398-0289-3-2672557	Amend #75	9/24/92	Asia(India)	1,400,000	56,917.96	304,974.89	1,095,025
HDN2-92-37499-KG-12	398-0289-3-2672519	Amend #76	9/26/92	Bangladesh	1,891,775	102,104.57	1,213,943.64	677,831
PDNA-91-27383-KG-13	383-085-3-11009	Amend #78	12/18/92	Sri Lanka	(110,000)	0.00	0.00	(110,000)
QES8-88-27263-KG-13	263-0132-3-88432	Amend #79	3/3/93	Egypt	4,151	0.00	4,134.99	16
NDVA-93-33298-KG-62	298-0249-3-3632415	Amend #80	3/5/93	NE	350,000	82,885.31	165,448.96	184,551
NES2-93-33298-KG-62	298-0249-3-3633032	Amend #80	3/5/93	NE	150,000	0.00	0.00	150,000
NES2-93-23278-KG-13	278-0264-3-30001	Amend #81	5/25/93	Jordon	265,381	20,902.37	32,175.38	233,206
HDVA-93-37499-KG-12	398-0289-3-3672527	Amend #82	6/29/93	Asia	200,000	0.00	0.00	200,000
HDVA-93-37499-EG-12	398-0289-3-3672528	Amend #82	6/29/93	Asia	800,000	0.00	0.00	800,000
					$23,990,625	$313,352.83	$19,885,536.91	$4,105,088
		Total Core			9,653,476	139,803.27	7,223,899.53	2,429,576
		Total Buy-Ins			14,337,149	173,549.56	12,661,637.38	1,675,512
		Total Funding			$23,990,625	$313,352.83	$19,885,536.91	$4,105,088

BUDGET LINE ITEM SCHEDULE

USAID Contract Number: ANE-0289-C-00-7044-00
Invoice Number: 06-000060
Period Covered: 8/1/93 - 8/28/93

Total Estimated Costs	$25,571,618
Total Estimated Costs Plus Fixed Fee	$26,000,000
Obligated Amount	$23,990,625

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COST ELEMENT	CURRENT PERIOD	FY '93 CURRENT YEAR	TOTAL TO DATE	TOTAL BUDGETED	AMOUNT REMAINING
Salaries and Wages	$10,623.15	$180,906.09	$1,127,615.20	$1,605,536.00	$477,920.80
Overhead	16,737.52	275,793.23	1,660,561.85	2,399,510.00	738,948.15
Consultants	102,838.24	2,009,072.75	5,962,753.06	7,353,150.00	1,390,396.94
Subcontractors	110,737.77	1,140,063.09	5,710,990.67	8,173,733.00	2,462,742.33
Travel & Per Diem	45,901.18	683,241.18	3,055,832.70	3,333,484.00	277,651.30
Equipment	0.00	11,964.41	189,805.85	266,832.00	77,026.15
Other Direct Costs	20,733.93	405,046.47	2,003,815.60	2,439,373.00	435,557.40
Billing Adjustment	(3,446.11)	(38,132.23)	(78,412.66)	-	78,412.66
Total Costs Incurred	$304,125.68	$4,667,954.99	$19,632,962.27	$25,571,618.00	$5,938,655.73
Fixed Fee	9,227.15	141,182.61	252,574.64	428,382.00	175,807.36
Total Costs Plus Fixed Fee	$313,352.83	$4,809,137.60	$19,885,536.91	$26,000,000.00	$6,114,463.09

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FROM:
CDM International Inc.
1611 No. Kent Street Rm. 1001
Arlington VA 22209

TO:
US AID Office of Financial Mgmt
M/FM/PAFD, AID/W
WASHINGTON D.C. 20523

FIRM TOTALS

	CURRENT	ITD
LABOR: CDM TSC	9,739.41	980,635.76
INDIRECT ON LABOR @ 1.5650	15,242.19	1,436,176.33
LABOR: CDM DOMESTIC	510.33	54,889.72
INDIRECT ON LABOR @ 1.7850	910.94	93,182.15
LABOR: CONSULTANTS	0.00	2,209.38
LABOR: CDM INTERNATIONAL HOME OF	373.41	89,880.34
INDIRECT ON LABOR @ 1.5650	584.39	131,203.37
TOTAL LABOR	$ 27,360.67	$ 2,788,177.05
CONSULTANTS	102,838.24	5,962,753.06
TRAVEL & PER DIEM	45,901.18	3,055,832.70
COMMODITIES	0.00	189,805.85
OTHER DIRECT COSTS	20,733.93	2,003,815.60
TOTAL EXPENSES	$ 169,473.35	$ 11,212,207.21
SUBCONTRACTORS	110,737.77	5,710,990.67
INVOICE SUB-TOTAL	$ 307,571.79	19,711,374.93
FIXED FEE @ 0.0300	9,227.15	252,574.64
BILLING ADJUSTMENT	(3,446.11)	(78,412.66)
TOTAL COST & FIXED FEE	$ 313,352.83	$ 19,885,536.91

ANNEX H

ISPAN PUBLICATIONS

updated 9/30/93

ISPAN PUBLICATIONS - with country

Report #	Title	Author
1.	INDONESIA - Facilitators' Report Second SSIMP Implementation Workshop Workshop conducted at Werdhapura, Samur, Boli. Act. #605A. (Feb. 1-5 1988).	John Pettit Dennis Hamilton
2.	PAKISTAN - Pakistan ISM Project Evaluation: Rehabilitation and Institutional Strengthening Components. Act. #604A. (Jan.-Feb. 1988).	no authors
3.	INDIA - Review of the Hill Areas Land and Water Development Project, March 1988. Act. #610A. (Oct. 1988).	Michael F. Walter Ralph J. Edwards
4.	BUREAU - ISPAN Annual Plan, FY 89. Act. #615A. (Aug. 1988).	--
5.	PAKISTAN - Midterm Evaluation of the Command Water Management Project. Act. #624A. Vol. 1: Findings and Recommendations; Vol. 2: Appendices (May 1989).	Russel H. Betts M.I. Chishti Tariq Husain Peter Reiss Gene White
6.	INDIA - Evaluation of the Irrigation Management Training Component. Act. #625A. (Oct. 1988).	Lin J.Compto Jack Keller Michael Walter
7.	NEPAL - Second Regional Irrigation Management Workshop; Kathmandu, Nepal, April 24-29 1988. Act. #609A. (Jan. 1989).	Peter Reiss
8.	U.S. - AID and World Bank Workshop on Training Needs and Strategies for Irrigated Agriculture, Washington, D.C. June 1-3, 1988. Act. #601A. (Dec. 1988).	Tony Garvey John Pettit
9.	REGIONAL - Eastern Waters Study: Strategies to Manage Flood and Drought in the Ganges - Brahmaputra Basin. Act. #634B. (April 1989).	Peter Rogers Peter Lydon David Seckler
10.	U.S. - ISPAN Annual Report - Management and Financial. Act. #639B. (Dec. 1988).	--
11.	U.S. - ISPAN Annual Report - Technical. Act. #639B. (Dec. 1988).	--
12.	EGYPT - Start-Up Workshop for the Professional Development Component of the the Egyptian Irrigation Management Systems Project. Ismalia, Egypt, Jan. 22-25, 1989. Act. #636B. (May 1989).	Claudia Liebler Kathy Alison
13.	EGYPT - Start-Up Workshop for the Water Research Center of the Egyptian Irrigation Management Systems Project, Alexandria, Egypt, Feb. 6-9, 1989. Act. #638B. (Feb. 1989).	Daniel B. Edwards Kathy Alison

14.	INDIA - Maharashtra Irrigation Technology - Management Project Phase I. India. Act. #632B. (no date).	Roy Elmore, act. mgr.
15.	SRI LANKA - Project Review Workshop for the Irrigation Systems Management Project, Colombo, Sri Lanka, April 6-10, 1989. Act. #643B. (Sept. 1989).	Kathy Alison John Pettit
16.	NEPAL - Irrigation Management Project Midterm Evaluation Report, Kathmandu, April 1989. Act. #6 6B. (July 1989).	Mohamed Ait Kadi K. William Easter Zenete Franca Jyoti P. Lohani N.S. Peabody, III M. Man Shrestha Pamela Stanbury
17.	EGYPT - Start-Up Workshop for the Irrigation Improvement Project of the Egyptian Irrigation Management Systems Project, Ismailia, Egypt, March 16-20, 1989. Act. #637B. (May 1989).	Dee Hahn-Rollins Kathy Alison
18.	EGYPT - Evaluation of the Structural Replacement and Project Preparation Unit Components of the Irrigation Management Systems Project. Act. #640B. (Apr. 1989).	Tom Wickham David Auslam Safa Jubboori
19.	EGYPT - Planning Studies and Models Component of the Irrigation Management Systems Project: Start-Up Workshop Report, Alexandria, Egypt, June 26-28, 1989. Act. #655B. (Oct. 1989).	Kathy Alison
20.	EGYPT - Preventive Maintenance Project/Channel Maintenance Project Component of the Irrigation Management Systems Project; Start-Up Workshop Report, Alexandria, Egypt, August 1-5, 1989. Act. #656B. (Nov. 1989).	Tom Leonhardt Susan Gant
21.	THAILAND - Medium Scale Irrigation Systems in North East Thailand: Future Directions. Act. #641B. (Sept. 1989).	Sam H. Johnson S. Patamatamkul Adul Apinantara Terd Charoenwatana A. Issariyanukula Kanda Paranakian Peter Reiss
22.	EGYPT - Project Management Workshop for the IMS Coordinating Committee, Alexandria, Egypt, Sept. 1-3, 1989. Act. #659B.	Kathy Alison Dee Hahn-Rollins
23.	INDONESIA - Mid-term Evaluation Small Scale Irrigation Management Project, Indonesia. Act. #652B. (Nov. 1989).	William Thomas Sjofjan Asnawi E. Walter Coward Jack Keller
24.	EGYPT - Start-Up Workshop for the Main System Management Component of the Egyptian Irrigation Management System Project, Alexandria, Egypt, Nov. 15-19, 1989. Act. #658B. (Jan. 1989).	Al Rollins Lee Jennings
25.	THAILAND - The Status and Future of Medium Scale Irrigation Projects in Northeast Thailand: Workshop Report. Act. #668B. (Feb. 1990).	S. Patamatamkul

26.	TUNISIA - Action Plan for a National Strategy to Create and Monitor Water User Associations in Tunisia. Act. #681C. (May 1990).	Fred Rosensweig Pamela Stansbury Curt Grimm
27.	INDONESIA - Third Implementation Workshop for the Small-Scale Irrigation Management Project; Poncakpass, Feb. 12-16, 1990. Act. #680C.	Steven Joyce
28.	PHILIPPINES - Training Program Review and Accelerated Agricultural Project, National Irrigation Administration (Philippines). Act. #682C. (June 1990).	Dan Edwards Thomas Wickham Leonardo Absamis
29.	SRI LANKA - Irrigation Systems Management Project, Second Annual Review Workshop, Mar. 21-24, 1990. Colombo, Sri Lanka. Act. #689C.	Kathy Alison Steve Joyce Basil Perera
30.	PAKISTAN - Start-Up Workshop for the Irrigation Systems Management II Project Quetta, Pakistan, March 12-15, 1990. Act. #690C. (Mar. 1990).	Kathy Alison Lee Jennings
31.	INDIA - Madhya Pradesh Minor Irrigation Project Bureau of Design for Hydroelectric and Irrigation Projects (BODHI) - Organization Review, India. Act. #622A. (Feb. 1989).	Priam Singh G. Walt Anderson
32.	INDIA - Madhya Pradesh Minor Irriation Project Bureau of Design for Hydroelectric and Irrigation Projects (BODHI) - Strengthening Hydrologic Study Capabilities, India. Act. #622A. (Feb. 1990).	T. Kumara Das B. K. Lee
33.	INDIA - Madhya Pradesh Minor Irrigation Project Bureau of Design Hydroelectric and Irrigation Projects (BODHI) - Strengthening the Capabilities of the Hydraulic Research Station, India. Act. #622A. (Feb. 1990).	S. V. Chitale James E. Borg
34.	SRI LANKA - Irrigation Systems Management Project Midterm Evaluation Report. Indonesia. Act. #689C. (July 1990).	Bechir Rassas Steven Joyce Mike McGovern Siri Hettige
35.	EGYPT - Interim Evaluation of the Irrigation Management Systems Project, Egypt. Act. #692C. (Sept. 1990).	Fletcher Riggs Peter Reiss, *et al.*
36.	THAILAND - River Basin Water Management Proposal - Preliminary Study Design, Thailand. Act. #667B. (Oct. 1990).	Sam H. Johnson *et al.*
37.	EGYPT - Project Planning & Implementation Workshop - Irrigation Improvement Program of the Irrigation Management System Project, Alexandria, Egypt, Nov. 11-14, 1990. Act. #714D. (Jan. 1991).	Kathy Alison Dee Hahn Rollins
38.	TUNISIA - A Comparative Study of Approaches to Creating Water User Associations for Potable Water in Rural Tunisia. Act. #694C. (Feb. 1991).	Richard Huntington N. Hopkins Mohamed S. Redgeb
39.	MOROCCO - Morocco Soil & Water Conservation Project Proposal. Act. #696C. (Dec. 1990).	Roger Poulin, *et al.*

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40.	INDONESIA - Privitization and Sustainability of small-scale Irrigation in Indonesia: A Reassessment of Sederhana and HPSIS Systems. Act. #654B. (May 1990 - draft).	M.A. Azez Peter Reiss, *et al.*
41.	INDIA - The Madya Pradesh Minor Irrigation Project: An Evaluation. Act. # 665B. (May 1990).	Don Slack, *et al.*
42.	TUNISIA - Mid-term Review of the Action Plan to Develop the Natural Strategy to Create and Monitor Water User Associations. Act. #694C. (Oct. 91 - draft).	Fred Rosensweig Lee Jennings
	Examen a Mi-Parcours du plan d'Action pour le Développement de la Stratégie et au suivi des Associations d'Intérêt Collectif.	
43.	TUNISIA - Analyse Institutionnelle, Plan d'Action pour le Développement de la Stratégie Nationale pour le Création d'Association d'Intérêt Collectif dans les Zones Rurales en Tunisie. Act. #694C. (Nov. 91 - draft).	Lee Jennings T. El Amouri M. Frouii
44.	BUREAU - US-Financed Irrigation and Drainage Research: Applications for Developing Countries. Act. #671B. (Mar. 1992).	N. van de Giesen T.S. Steenhuis
45.	MOROCCO - Morocco Water and Soil Resources Conservation Project. Act. 727D. (Dec. 1991).	M. Ait Kadi, *et al.*
46.	PHILIPPINES - Training and Organizational Development Assistance for Improving the Training Capability of the National Irrigation Administration in the Philippines. Act. #725D. (Feb. 1992).	Lee Jennings S. Joyce
47.	TUNISIA - Assessment of Water User Associations' Capacity for Community Development in Tunisia - Toward the Development of the National Strategy to Create and Monitor Water User Associations. Act. #694C. (May 1992).	S. Reines A.M. Dargouth
	Evaluation des Capacites de Developpement Communautaire chez les Associations d'interet collectif en Tunisie - Vers l'elaboration de la strategie nationale pour la creation et le suivi des AIC	S. Reines A.M. Dargouth
48.	INDIA - Final Evaluation of the Water Resources Management and Training Project, India. Act. #732E. (May 1992).	Richard Wall A. Sundar A.D. Gupta G. Roy Elmore
49.	EGYPT - Irrigation Water Cost Recovery in Egypt: Determination of Irrigation Water Costs. Act. # 726D. (Jan. 1993).	Ibrahim Elassiouty William Grenney Parviz Hekmat Paul Riley Robert Young, *et al.*
50.	INDONESIA - Policy Alternatives for Pump Irrigation in Indonesia. Act. #695C. (Nov. 1992).	Sam Johnson Agus Pakpahan Suprodjo Pusposutardjo Effendi Pasadaran

50.	contin.	G.T. Keith Pitman Abunawan Mintoro Peter Reiss Tjahjadi Sugianto Sigit Supadmo Arif Sumaryanto Roger Jackson Hendiarto
51.	PAKISTAN - Factors Determining Groundwater Use for Irrigation in Pakistan's Punjab. Act. #630B. (Dec. 1992).	Robert Johnson
52.	PAKISTAN - Pakistan Command Water Management Project: Final Evaluation. Act. #740E. (March 1993).	John H. Eriksen S.A. Husaini Jagirdar Gilbert Corey Muhammad Akhtar Bhatti Allen Jones Jamshed Tirmizi
53.	BANGLADESH - Flood Response/Flood Proofing Studies FAP 14/23: Final Workshop Report, 2 volumes. Act. #705C/710C. Draft in progress.	Kathy Alison Mustafa Alam
54.	EGYPT - Irrigation Management Systems Project Review and Planning Workshop, Report and Annex - Port Said, Egypt, April 1-4, 1993. Act. #734E. (Apr. 1993).	Kathy Alison Taya Levine
55.	BUREAU - Contrasting Approaches for Water Policy Development in Tunisia and Sri Lanka. Act. #747F. Final draft completed, awaiting printing (Oct. 1993).	John Eriksen Roger Poulin
56.	BUREAU - Gulf of Aqaba Environmental Data Survey. Act. #739E. (Oct. 1992).	Sylvia Earle Dan Campbell J. Fadlalla Jonathan French Alan Jahn David Tarnas Robert Thomas Alan Thum
57.	BUREAU - NE Water Resources Action Plan - Bureau Document. Act. #724F. (Aug. 1993).	Peter Reiss

Documents in Progress:

No #.	BUREAU - A New Focus on the Water Sector: The Asia Bureau Strategic Framework - Bureau Document. Act. #724D. Ongoing draft in progress (as of 9/93).	Bob Thomas
No #.	BUREAU - Regional Environmental and Natural Resources Workshop Report - Cairo, Egypt, 28 Feb. - 4 March 1993. Act. #742E. Ongoing draft in progress (as of 9/93).	Kathy Alison

No #. BUREAU - Environmental Sustainability of Water Resources. Act. 748F. Ongoing draft in progress (as of 9/93).

Michael Colby
Richard English
William Jobin
Bechir Rassas
Bob Thomas

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